



## Biennial (2020-2021)

### Stormwater Progress Report Template/Information

#### October 2021

Most of the Alliance of Downriver Watershed members have biennial progress reports due by November 1. The ADW Facilitation Team prepared a set of documents for you to include with your 2020-21 MS4 Progress Report. MS4s need to review the documents, update them to include your individual MS4 activities, and submit final reports through EGLE's MiWaters online reporting system ([www.michigan.gov/miwaters](http://www.michigan.gov/miwaters)). If you have any problems with that system, email or call Christine Caddick, EGLE ([caddickc@michigan.gov](mailto:caddickc@michigan.gov) 248.508.1072).

This document outlines the report elements, provides answers to many questions you will be asked via MiWaters, and indicates which parts individual MS4s will need to prepare on their own. **It is important to note that it is the responsibility of the individual permit holders to tie these summaries of ADW activities back to your permit.** You will need to add your individual MS4 activities to these documents and upload the documents attached to this email to MiWaters.

**WE UNDERSTAND A FEW ADW COMMUNITIES DO NOT YET HAVE THEIR FINAL PERMITS ISSUED BY EGLE, AND OTHERS ONLY RECENTLY HAVE HAD PERMITS ISSUED. THE MIWATERS REPORTING FOLLOWS MUCH OF THE NEW PERMIT FORMAT. WE HAVE BEEN DIRECTED BY EGLE TO HAVE MS4S DO THE BEST THEY CAN IN DOCUMENTING ACTIVITIES YOU HAVE COMPLETED/ARE DOING AND TO INCLUDE A COMMENT IN THE SECTIONS THAT DO NOT APPLY BECAUSE YOUR PERMIT HAS NOT BEEN ISSUED YET, OR WAS ONLY RECENTLY ISSUED.**

*Timeframe: The ADW Facilitation Team is reporting on activities, accomplishments and data from October 2019 through September 2021. For consistency, it may be best for you to use the same reporting timeframe.*

#### **Section 1. General Facility Information, Nested MS4 and Outfalls/Points of Discharge**

Each MS4 is responsible for their own reporting information under this section. All ADW members have a Watershed-Based Permit (MIG610XXX) and are Phase II permittees.

## **Section 2. Enforcement Response Plan (ERP)**

The ADW Team **answered the 5 questions** from this section below. A separate report document on progress in this area is also included that you will upload in the reporting process (see reference in answer 3 below). ERP's were developed by MS4s and submitted with your new permit application. Many ADW MS4s do not yet have new permits issued. However, most MS4s have been doing ERP activities for years. **It is suggested to look at your submitted ERP and report any activities you may have in place and been implementing. A .doc file has been started for your use.**

Question 1: No

Question 2: **Select appropriate response**

Question 3: Attached 2021 Section 2 – ERP report.doc. **Indicate page and paragraph; Summarize number of violations, cease and desist orders, etc. issued.**

Question 4: **Note number – type 0 if none**

Question 5: Yes

## **Section 3. Public Participation/Involvement Program (PPP)**

The ADW Team **answered the 4 questions** from this section below. A separate report document on progress in this area is also included that you will upload in the reporting process (see reference in answer 3 below). **Note: Please review and edit the PPP Report document. There are places to include your organization's information.**

Question 1: No

Question 2: Yes

Question 3: PPP Activities summarized in attached file '2021 Section 3 – ADW PPP report.doc'

Question 4: Yes

## **Section 4. Public Education Program (PEP)**

The ADW Team **answered the 5 questions** in this section below. A separate report document on progress in this area is also included that you will edit and upload in the reporting process (see reference in answer 1 below). **Note: Please review and edit the PEP Report document. There are numerous places to include your organization's information and activities, and not all sections may apply to your MS4.**

Question 1: No

Question 2: Yes

Question 3 *PEP Topics*

*PEP Topic 1:* See Section 4 -- PEP Report, Activity #1-6, 8, 10

*PEP Topic 2:* See Section 4 -- PEP Report, Activity #1-6, 8, 9

*PEP Topic 3:* See Section 4 -- PEP Report, Activity #1-3, 5, 6, 8, 9

*PEP Topic 4:* See Section 4 -- PEP Report, Activity #1-3, 5, 8

*PEP Topic 5:* See Section 4 -- PEP Report, Activity #1-3, 5, 8

*PEP Topic 6:* See Section 4 -- PEP Report, Activity #1-3, 5, 8

*PEP Topic 7:* See Section 4 -- PEP Report, Activity #1-3, 5, 8, 10

*PEP Topic 8:* See Section 4 -- PEP Report, Activity #1-3, 5, 8

*PEP Topic 9:* See Section 4 -- PEP Report, Activity #1-3, 5, 8

*PEP Topic 10:* See Section 4 -- PEP Report, Activity #5, 7, 8

*Question 4:* PEP Activities summarized in attached file Section 4 – PEP report.docx.

*Question 5:* Yes

### **Section 5. Illicit Discharge Elimination Program (IDEP)**

The ADW Team **answered the 9 questions** in this section below. A separate report document on progress in this area is also included that you will edit and upload in the reporting process (see reference in answer 1 below). **Note: Please review and edit the IDEP Report document. There are numerous places to include your organization's information and activities.**

*UPLOAD:* Section 5 – ADW IDEP Report.doc

Each MS4 should add into the report any IDEP activities, findings and results you conducted on your own **PRIOR** to uploading to MiWaters.

*Question 1:* No

*Question 2:* Yes

*Question 3:* **Respond as appropriate for your MS4**

*Question 4:* **Select appropriate response**

*Question 5, 5a, 5b :* **Respond with number detected and eliminated**

*Question 6:* **Respond as appropriate for your MS4**

*Question 7:* **Respond as appropriate for your MS4**

*Question 8:* Section 5 – ADW IDEP Report.doc

Question 9: Yes

## **Section 6. Construction Storm Water Runoff Control Program**

The ADW Team **answered the 7 questions** in this section below. There is no separate report associated with Section 6.

Question 1: *Select appropriate response*

Question 2: *Select appropriate response*

Question 3: *Select appropriate response*

Question 4: *Select appropriate response*

Question 5: *Select appropriate response*

Question 6: *Select appropriate response*

Question 6a: *Select appropriate response*

Question 7: *Select appropriate response*

## **Section 7. Post-Construction Storm Water Runoff**

The ADW Team **answered the 5 questions** in this section below. A separate report document on progress in this area is also included that you will edit and upload in the reporting process. **Note: Please review and edit the Post-Construction Report document. There are several places to include your organization's information and activities.**

**Upload Document in MiWaters.** Section 7 – ADW Post Construction Control Program Report.doc

Each MS4 should add into the report any Post-Construction activities you conducted on your own PRIOR to uploading to MiWaters.

**COMMENT BOX in MiWaters:** In the comment box, you may want to provide a brief description of where you are at in the process of updating your storm water standards. The following lists different options that may apply to where you are in your process.

- Community submits a schedule for adoption of the County's revised and recently adopted stormwater standards (as they are written, no modifications)
- Community submits a schedule for adoption of the County's revised and recently adopted standards (with modifications that are noted in the permit application submittal)
- Community submits a schedule for adoption of a completely different set of standards that meet EGLE requirements
- Community already has an ordinance that adopts the county's stormwater standards by reference

Question 1: Yes

Question 2: *Select appropriate response.*

Question 3: *Select appropriate response.*

Question 3a: *Select appropriate response.*

Question 3b: *Select appropriate response.*

Question 3c: *Select appropriate response.*

Question 3d: *Select appropriate response.*

Question 3e: *Select appropriate response.*

Question 3f: *Select appropriate response.*

Question 4: Section 7 – ADW Post Construction Control Program Report.doc, Maintenance Agreements

Question 5: Yes

**Section 8A. Pollution Prevention/Good Housekeeping – Structural Controls, SOPs, Catch Basin Cleaning and Street Sweeping**

The ADW Team **listed the 9 questions** in this section below. Much of P2/GH BMPs and activities are independently done by each MS4, therefore, much of this section must be populated by the MS4. A separate report document on progress in this area is also included that you will edit and upload in the reporting process (see reference in answer 8 below). **Note: Please review and edit the P2/GH Report document. There are numerous places to include your organization's information and activities.**

Question 1: No

Question 2: *Select appropriate response*

Question 3: *Select appropriate response*

Question 4: *Select appropriate response*

Question 4a: *Select appropriate response*

Question 5: *Select appropriate response*

Question 6: *Select appropriate response*

Question 7: *Select appropriate responses*

Question 8: 2021 Section 8A - ADW Pollution Prevention and Good Housekeeping Program Structural Controls report.doc

**Each MS4 should add into the report any Pollution Prevention/Good Housekeeping activities you conducted on your own PRIOR to uploading to MiWaters.**

Question 9: 2021 Section 8A - ADW Pollution Prevention and Good Housekeeping Program Structural Controls report.doc

## **Section 8B. Pollution Prevention/Good Housekeeping – Operation and Maintenance Activities and Employee Training**

The ADW Team **listed the 6 questions** in this section below. Much of P2/GH BMPs and activities are independently done by each MS4, therefore, much of this section must be populated by the MS4. A separate report document on progress in this area is also included that you will edit and upload in the reporting process. **Note: Please review and edit the P2/GH Report (8B) document. There are numerous places to include your organization's information and activities.**

Question 1: *Select appropriate responses*

Question 2: *Select appropriate response*

Question 3: *Select appropriate response*

Question 4: *Select appropriate response*

Question 5: *Select appropriate response*

Question 6: Yes

## **Section 9. Total Maximum Daily Load (TMDL) Implementation Plan**

The ADW Team **answered the 6 questions** in this section below. A separate report document was provided on progress in this area that you will upload in the reporting process.

Question 1: Yes

Question 2: *Include all applicable TMDLs for your MS4. If you are unsure, the ADW Team can help you determine:*

*Excessive bacteria (E. coli), and sediment in the Ecorse River*

*Sediment in Brownstown Creek and Blakely Drain – Marsh Creek*

*Sediment in Frank and Poet Drain*

*Habitat and Flow Alterations in Smith and Silver Creeks*

Question 3: Yes

Question 4: Monitoring results are provided in 2021 'Section 9 – ADW TMDL report.docx'

Question 5: Water quality conditions and TMDL progress evaluation are provided in '2021 Section 9 – ADW TMDL report.docx'

Question 6: Yes

## **Additional Information**

**If you have any additional information to report, upload it here.**

## **Alliance of Downriver Watersheds**

### **Section 2: Enforcement Response Plan/Procedure (ERP) Progress Report**

An Enforcement Response Plan/Procedure (ERP) was submitted with our permit application in 2017 and explains how we will meet the NPDES requirements for ERP. Our permit **has/has not** been issued by EGLE.

[If your permit **has** been issued by EGLE, document here the progress made toward implementing your ERP and measurable goals in your ERP.]

[If your permit **has not** been issued by EGLE, review your draft ERP and note any actions that you have taken/tracked/documented during the reporting period.]

## Alliance of Downriver Watersheds

### Section 3: Public Participation Plan (PPP) Progress Report

The Alliance of Downriver Watersheds PPP was approved by EGLE in May 2019 as part of the 2017 stormwater permit application. Stormwater permit applications were submitted by ADW members in 2017 to MDEQ/EGLE as required. Some ADW members had their permits issued by EGLE in 2021 with a few awaiting an approved permit. In 2020, Wayne County finalized their permit which is posted on their website. In 2021, the following ADW members received their new permits: Allen Park, Belleville, Flat Rock, Gibraltar, Grosse Ile Township, Lincoln Park, Melvindale, Riverview, Rockwood, Romulus, Sumpter Twp, Van Buren Twp, Westland, and Woodhaven-Brownstown Schools.

#### Review and Revision of the WMPs

Watershed Management Plans (WMPs) for the Alliance of Downriver Watersheds were approved by EGLE in 2007. The 2007 version of the WMPs were most recently reviewed and updated by the Alliance of Downriver Watersheds in 2011-12, to include activities and data that had since been collected and/or developed and to achieve 319 approval from the State. The plans (Ecorse Creek Watershed Management Plan, Combined Downriver Watershed Management Plan, and the Lower Huron River Watershed Management Plan) were then made available for public review via the ADW's website. The WMPs were approved by EGLE in 2012. Since that time, the permittees within the Alliance of Downriver Watersheds have focused on implementing activities within the WMP and have additionally developed specific implementation plans to address water quality impairments. These activities are reported in other sections of the progress report. The WMP continues to be available to the public via the Alliance of Downriver Watersheds (ADW) website at

<http://www.allianceofdownriverwatersheds.com/initiatives>.

[MS4s indicate if you have the current WMP posted or linked on your website]

A collaborative TMDL Plan to address progress evaluation monitoring was submitted and approved by EGLE in July 2019 to address the 5 TMDLs in the ADW.

#### Alliance of Downriver Watersheds

In 2007, the majority of permittees within the Alliance of Downriver Watersheds formally established under Public Act 517 of the Public Laws of 2004. The ADW consists of 21 public agencies in the Ecorse Creek, Combined Downriver and Lower Huron River Watersheds within Wayne and Monroe Counties. The ADW meets (open to the public with schedules posted on the website) on a regular basis and works together to cooperatively manage the rivers, lakes and streams within the watershed. During the reporting period, the ADW met on the dates listed below. [Meeting agendas, summaries, and attendees are posted on the ADW website](#).

- **Full ADW**

The full ADW met seven (7) times since the last reporting period. Meeting dates have included:  
November 6, 2019  
February 12, 2020  
May 13, 2020 (Virtual)  
September 9, 2020 (Virtual)  
February 10, 2021 (Virtual)



May 12, 2021 (Virtual)  
October 18, 2021 (Virtual)

- ***Joint Public Involvement Committee and Technical Committee***

The joint Public Involvement/Technical Committee met fifteen (15) times since the last reporting period including:

October 23, 2019  
January 22, 2020  
April 1, 2020 (Virtual)  
June 3, 2020 (Virtual)  
June 9, 2020 (Virtual)  
July 22, 2020 (Virtual)  
August 26, 2020 (Virtual)  
October 21, 2020 (Virtual)  
December 9, 2020 (Virtual)  
February 4, 2021 (Virtual)  
March 25, 2021 (Virtual)  
May 6, 2021 (Virtual)  
June 16, 2021 (Virtual)  
July 14, 2021 (Virtual)  
September 22, 2021 (Virtual)

- ***Executive Committee***

The Executive Committee meets when needed to discuss financial and other issues. The Executive Committee met three (3) times since the last reporting period primarily to discuss annual budgeting, work plans and contracts. Meeting dates included:

September 4, 2019  
August 12, 2020 (Virtual)  
May 10, 2021 (Virtual)  
August 24, 2021 (Virtual)

### **ADW Membership and Budget**

From the previous reporting period, membership dropped from 22 to 21 members with the City of Woodhaven withdrawing in early 2021.

- Final expenditures for 2019 were \$678,116
- Final expenditures for 2020 were \$145,929
- Expenditures to date for 2021 are \$67,543 (as of July 2021)

These funds were expended on efforts directly related to the betterment of the watersheds. The majority of the budget is a combination of dues, grants, and Wayne County funds. In both 2020 and 2021, the majority of expenditures were for conducting advanced IDEP investigations, public education, physical and biological monitoring, SAW grant related elements, as well as facilitation of ADW meetings.

## Contracts

The ADW continued to be engaged in two (2) contracts during the 2020 and 2021 reporting year, including:

- Watershed Facilitation & Technical Services w/ Orchard, Hiltz & McCliment, Inc. Team
- Watershed Facilitation and Fiduciary Services w/ Wayne County

## Inter-Agency Agreements

During the 2020-2021 reporting period, the ADW maintained (1) Inter-agency Agreements (IAA) with 1 entity for their assistance with ADW initiatives:

- Fiduciary Services Agreement w/ Wayne County

## MDEQ/EGLE Stormwater, Asset Management, and Wastewater (SAW) Grant

The ADW submitted a SAW application under the Stormwater Management Plan option in 2013 requesting \$999,900 in funds with a local match of \$111,100. The ADW was funded in the fourth round of SAW awards. SAW funded work began in 2017 with the initial focus on developing new MS4 permit collaborative plans and templates for use by the ADW as well as planning efforts related to the additional SAW work. The majority of SAW work was completed in 2018 and 2019. The final deliverable to EGLE to fulfill SAW grant requirements was a Stormwater Management Plan that was submitted to EGLE in December 2019. Major Tasks and work completed with SAW funds in 2018 and 2019 include:

- Development of centralized GIS dataset of stormwater outfalls, discharge points and MS4 system assets with GPS field surveys completed to fill in data gaps within IDEP priority areas.
- Dye Testing of ADW member facilities/communities in ADW priority areas to look for any illicit discharges.
- Collaborated and worked on development of stormwater planning and design rules/guidelines for submittal to EGLE in conjunction with Oakland and Macomb counties.
- Collaborated with and prepared pollution prevention action plans for ADW member facilities.
- Site assessments and conceptual planning for green infrastructure improvements for 25 ADW member properties.
- Engaged interested ADW members in development and analysis of sustainable stormwater funding mechanism via stormwater utilities.

## Collaborative PPP

The ADW Collaborative PPP was approved by EGLE in May 2019.

### BMP 1.1 Public Notice of Draft SWMPs

Public notice was provided upon on the release of the draft permit via [MS4s list where/when notice was published]. The [enter MS4 name] will post a link to our SWMP once issued. OR; Our issued SWMP has been posted on our website at {provide link} and has been provided to the ADW to publish a link on the ADW website. The ADW has posted links to all of the issued permits once received on the [ADW website](#).

### BMP 1.2 Public Access to SWMPs

A link to the Collaborative sections of the SWMPs (approved in 2019) is provided on the [ADW website](#). The [enter MS4 name] will post a link to our SWMP once issued. OR; Our issued SWMP has been posted on our website at {provide link} and has been viewed \_\_\_\_ [enter number of views] times. Our issued SWMP has been provided to the ADW to publish a link on the ADW website. The ADW has posted a link to all of the issued permits once received.

**BMP 1.3 SWMP Implementation**

The full ADW met seven (7) times since the last reporting period. [Agendas, meeting summaries and attendance are recorded on the ADW website.](#) Meeting dates have included:

November 6, 2019

February 12, 2020

May 13, 2020 (Virtual)

September 9, 2020 (Virtual)

February 10, 2021 (Virtual)

May 12, 2021 (Virtual)

October 18, 2021 (Virtual)

**BMP 1.4 SWMP Review**

If your permit has been public noticed, indicate here if you've received any public comments and if the comments require revisions to the permit prior to finalizing.

The [insert MS4 name], did not receive any public comments on our draft SWMP. Or; The [insert MS4 name] received public comments as noted below (or attached). These comments did/did not lead to [insert MS4 name] making revisions to our SWMP prior to finalizing. [summarize where your MS4 is in the revision process if applicable]

## Alliance of Downriver Watersheds

### Section 4: Public Education Plan (PEP) Progress Report

The PEP section of the Watershed Management Plan was developed to promote, publicize, and facilitate watershed education in the Alliance of Downriver Watersheds. In addition, in 2017, the ADW members submitted a Collaborative Public Education Plan and Table along with their 2017 Stormwater Discharge Permit Applications. The Collaborative PEP was approved by EGLE in July 2019, however, not all ADW member communities have received approved 2017 permits as of the time of this reporting. Following is a summary of the progress made on PEP implementation. The reporting period covers October 1, 2019 – September 30, 2021, unless otherwise noted.

The ADW included activities for the period **October 1, 2019 to September 30, 2021**, but permittees should fill in additional progress on their own public education activities such as efforts to distribute materials provided by others. Areas after each activity are provided for this purpose and are highlighted in yellow. Comments to the right are provided as additional helpful instruction for collecting needed materials and producing the report. **Please delete this paragraph AND all comments and make sure the inserted images line up with the appropriate section prior to saving your final report and submitting it to MiWaters.**

### Collaborative Public Education BMPs

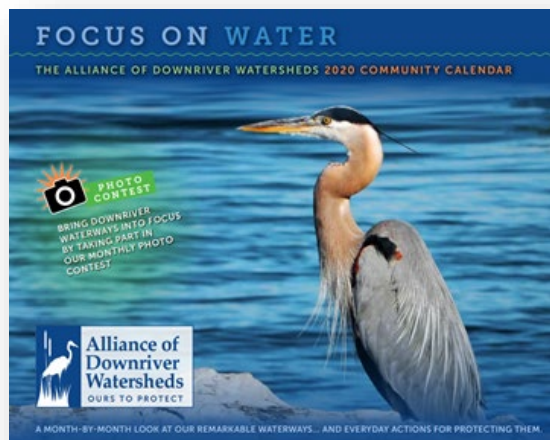
#### Activity #1: Produce and distribute a printed watershed community calendar and social media-driven photo contest

Topics: A-J

Assessment: 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.

#### 2020 Watershed ADW Community Calendar

In 2019, the ADW budgeted for the design, printing, delivery and distribution of 37,000 Watershed Community Calendars. The calendars featured water-related photos from local nature photographers and entries from a 2018 ADW photo contest and 12 months of tips for preventing stormwater runoff pollution and protecting the waters of the ADW. Additionally, recreation and volunteer stewardship opportunities in the ADW area are highlighted. The ADW members received delivery of the calendars in October 2019 for distribution to residents, businesses and constituents. Quantities for each ADW member were determined by the amount of dues paid (which is based on population).



In addition to the ADW members, 5,200 calendars were provided to the following organizations for further distribution:

- Pointe Mouillée State Game Area
- City of Dearborn Heights Watershed Stewards Commission

- Huron River Watershed Council
- Riverside Kayak Connection
- Detroit River International Wildlife Refuge Large Lakes Research Station
- Friends of the Detroit River
- Southern Wayne County Regional Chamber
- Michigan Sea Grant Extension
- Downriver Community Conference
- Belle Isle Nature Center
- Blue Heron Trading Company
- H2E River Adventures
- Motor City Canoe
- OHM-Advisors
- Wade Trim
- Charles Raines
- Huron Clinton Metroparks (Lake Erie, Willow, Lower Huron, Oakwoods)

The following quantities of calendars were provided to ADW member communities:

No. of Calendars	
2,650	City of Allen Park Public Services
525	City of Belleville
1,775	Dearborn Heights City Hall
675	Albert B. Buday Civic Center, City of Ecorse
1,775	City of Flat Rock, City Hall Offices
925	Gibraltar City Municipal Building
1,950	Grosse Ile Township
375	City of Inkster
1,000	City of Lincoln Park
250	Melvindale Dept of Public Works
1,625	Riverview Department of Public Works
725	Rockwood City Hall, Public Services Dept
4,600	City of Romulus Dept of Public Works
1,375	City of Southgate Department of Public Services
750	Sumpter Twp Department of Public Services
3,750	City of Taylor Dept of Public Works
2,050	Van Buren Township Offices
2,000	Wayne County Environmental Services
525	City of Westland Department of Public Services
1,825	Woodhaven City Hall
400	City of Wyandotte
275	Woodhaven Brownstown School District, Central Administration
<b>31,800</b>	

### 2020 Photo Contest

The ADW hosted a photo contest that supported and furthered outreach goals. The contest was promoted by the 2020 Watershed Community Calendar and sought photos each month from the public that demonstrated their connection to the freshwater resources of Southeast Michigan and pollution prevention behaviors. Entries were submitted at the ADW website and shared with the public. Winning photos earned prizes, provided by local ADW businesses, and will be incorporated into the 2022 calendar (slated for distribution in October 2021). Additionally, the contest was promoted through social media, print advertising, a public relations campaign targeting local press and by ADW members. 97 participants from 27 communities submitted 273 photos.

The ADW plans to run the photo contest again in 2022. The ADW's Instagram social media account published 16 organic posts related to the photo contest January-December 2020 resulting in a profile reach of 643 users (total number of people that saw the organic posts) and 1,003 profile impressions (total number of times these organic posts appeared on people's screens on Instagram). The photo contest drives traffic to the ADW website which in 2020 experienced a 111% increase in users (1,920) over the previous year when the photo contest was not running.

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

Topics: A-J

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.

### Schools for Clean Water Contest

Between November 2020 and May 2021 the ADW planned and conducted the Schools for Clean Water Contest, an educational outreach activity around stormwater pollution.

The goal of the campaign was to persuade ADW residents to "adopt a storm drain" and keep it clean—because clogged drains contribute to street flooding and water pollution in the ADW region. For the 2021 campaign, the ADW offered residents an incentive to pledge to adopt a storm drain, and the opportunity to assign their pledge to a local school. The schools that collected the most pledges won cash to purchase educational materials and supplies for on-campus projects.

As a result, during the contest (April 12-30, 2021) the ADW collected 1,235 valid pledges. In a follow up survey 80% of respondents reported that they had already selected the nearby storm drain they intended to adopt. Survey results suggest that the overarching message of the campaign stayed with campaign participants. Here are a few highlights for how campaign participants answered the question "In your own words, what happens when storm drains are neglected or used as trash cans?"

- *"It will pile up waste, and create a toxic environment for all living creatures."*
- *"The drains can get polluted or jammed (which could cause other issues)."*
- *"Clogs up drains, backs up into yards, flooding issues, adds pollution to water heading to local waterways."*

Here are a few highlights for how campaign participants answered the question "In your own words, what are the benefits of "adopting" a storm drain?"

- *“Showing my kids the right thing to do.”*
- *“Someone is now responsible for the cleanliness and upkeep.”*
- *“Be aware of people dumping chemicals and call authorities if needed, removing trash and debris that is blocking the drain so it can flow again.”*

Overall, the marketing efforts for the campaign resulted in over 905,408 “impressions” (the number of times pledge contest content was displayed/posted/viewed digitally). Materials were distributed by email, Facebook advertising, messages posted to school and PTA Facebook pages, posts on local social media groups, PTA and School website and social media posts, and news articles in local media outlets. The ADW tracked approximately 1,300 people or 2,000 visits to the contest web page March-April, which also hosted downloadable PDF flyers and advertisements for member and school use.

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

Topics: A-J

Assessment: 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.

#### Pop-Up Display for Key Venues and Events in Member Communities

The ADW members continued to use the ADW designed and produced (in 2016) outreach displays at key venues and events in their communities. The display’s messaging shows how ADW communities are working for clean water and shares with residents how they can prevent stormwater pollution in their everyday actions. These are available for check out by members through the Wayne County Department of Public Services. This reporting period coincides with the onset of the COVID pandemic which eliminated nearly all in-person events for much of 2020 and 2021. In 2020 and 2021, the ADW panel displays were displayed as noted below.

Permittees should fill in the table below and 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. If you have none to add, delete the tables and make a note stating such with reference to the pandemic.

#### 7 Simple Steps Display

Display Name	Event	Community	Dates

#### ADW Panel Display

Event	Community	Dates
<i>Riverview City Hall Display</i>	<i>Riverview</i>	<i>2/18/2020-4/18/2020</i>

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

Topics: A, B, I

Assessment: 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.

##### ADW Green Schools Museum To You: River Residency Stream Table Simulation Workshops

Each year, the ADW gives hundreds of students an opportunity to learn about watersheds, water flows and erosion, flooding, and the consequences of human activities on water quality. Made possible by a partnership between the ADW, Wayne County Green Schools and the University of Michigan, Museum of Natural History, the Stream Table River Residency program provides in-school workshops focused on a 12-foot traveling stream simulation table that cycles 40 gallons of water and holds 240 pounds of plastic sediment. Students work in small groups and record their observations in accompanying journals. All workshops are inquiry based and meet state standards for social studies and the new Next Generation Science Standards. Green Schools (as designated through a Wayne County program) in the ADW are able to choose a combination of workshops. The ADW covers the cost of a one-day workshop.

**During this reporting period, the ADW provided vouchers to 4 schools for a 1-day River Residency Workshop.** Some of the schools chose to extend the number of days of the workshop with their own funding.

- Barnes Elementary, Flat Rock had the Stream Table for two days, December 3-4, 2019  
125 4<sup>th</sup> graders participated.
- Brownstown Middle, Brownstown had the table for 12 days, December 10-11 2019;  
131 6<sup>th</sup> grade students participated.
- St. Sebastian School, Dearborn Heights, February 8-8, 2019. and August 19. 2019;  
98 K-8 students participated.
- Seitz Middle School, Riverview, March 13, 2019;  
80 6<sup>th</sup>-8<sup>th</sup> graders participated.

**A total of 434 students from ADW Green Schools learned from the River Residency Stream Table Simulation Workshops during the reporting period.** The cost of a 1-day workshop is paid for by the ADW.

##### *Teacher and Student comments:*

*"Teachers have been positive and feel that this program does a great job of helping kids to understand the importance of understanding and protecting our water. One teacher said, "I loved the program last year, and I liked it even more this year. I knew what to expect and could be more attentive to the presentation." I received many thanks for arranging the program, and I made sure to give credit to you and the Alliance of the Downriver Watershed. I will be sending out thank you notes to express our appreciation."*

—Kim Smith, 5<sup>th</sup> grade teacher, Barnes Elementary

*"We had K thru 8th grade in for lessons on the Protecting our watersheds. We grouped the older students with their lower grade buddies. Total of 98 students in all. Teachers and students found the Stream table very hands on and exciting. Students built cities and watched as it eroded. Everyone really enjoyed the demonstrations and we learned so much about how to protect our natural resource."*



—Amy Castelli, St. Sebastian

State Orders and Directives from the Michigan Occupational Safety and Health Administration (MIOSHA), the Governor’s Office, and the Michigan Department of Health and Human Services (MDHHS); and health and safety concerns related to Coronavirus disrupted in-person education during the reporting period. The University of Michigan, Museum of Natural History suspended the Stream Table River Residency program from March 2020 until March 2021. In March 2021 the Museum launched an interactive virtual science field trip program for grades 2-4. In April 2021, the ADW promoted “How Water Shapes the Land” virtual field trips for elementary students to 2019, 2020 and 2021 Wayne County Green Schools (15 schools). Creative Montessori and Miller Elementary School each provided the field trip to 1 classroom (approximately 60 students).

#### ADW Annual Student Bug Hunt

As part of the ADW’s continuing effort to engage ADW residents, the ADW engaged partner schools to assist in sampling for macro-invertebrates at sites located in the ADW. Participating schools, number of students and number of sites monitored are summarized in the table below. One hundred thirty-seven students were engaged during the fall 2019 monitoring. Due to the COVID-19 pandemic, fall 2019 was the last time during the reporting period that WCDPS was able to partner with the participating schools.

Reference Number	School	School Location	Bug Hunt Site	Location	Sample Site Location	Watershed	Date	# of Students Fall 2019 approx
1	NA	NA	CD-7	Frank and Poet/Southland Mall	Taylor	Combined Downriver	10/8/19	NA
2	Riverview HS	Riverview	CD15	Frank and Poet at Homeister	Riverview	Combined Downriver	10/29/19	12
3	Trenton HS	Trenton	CD5A	West Road/Frank and Poet	Trenton	Combined Downriver	10/15/19	18
4	Southgate Anderson HS	Southgate	CD2	SAHS East	Southgate	Combined Downriver	10/8/19	5
5	NA	NA	EC-9	South Branch Ecorse Creek/Goddard Rd	Allen Park	Ecorse Creek	10/29/19	NA
6	Southgate Creative Montessori	Southgate	EC4	Grams Drain at Brest and McCann	Southgate	Ecorse Creek	11/4/19	26
7	NA	NA	EC-11	Goddard Road/South Branch Ecorse Creek	Taylor	Ecorse Creek	11/4/19	NA

8	Seitz Middle School	Riverview	HR-7	Silver Creek/King Rd	Huron Township	Lower Huron	10/21/19	28
9	Barnes Elementary	Flat Rock	HR1	Flat Rock Community Park	Flat Rock	Lower Huron	10/16/19	28
10	Brownstown Middle School	Brownstown	HR8	Sherman Drain at Brownstown Middle School	Brownstown	Lower Huron	10/10/19	20
11	NA	NA	CD8	Frank and Poet/Van Horn Rd	Trenton	Combined Downriver	10/17/19	NA
							Total students	137

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

Topics: A, B, C

Assessment: Survey results, map inventory and recommendations; Number of new and replacement signs produced by the ADW; Permittees will report installation and maintenance activities.

#### System Labeling and Signage - Watershed Signage Field Inventory Project

Beginning in 2010, the ADW began installation of “Entering Watershed” and “Creek Crossing” signs. In 2020 and 2021, ADW members continued to maintain their network of 63 “Creek Crossing” signs and 17 “Entering Watershed” signs.

Permittees should report any installation and maintenance activities.

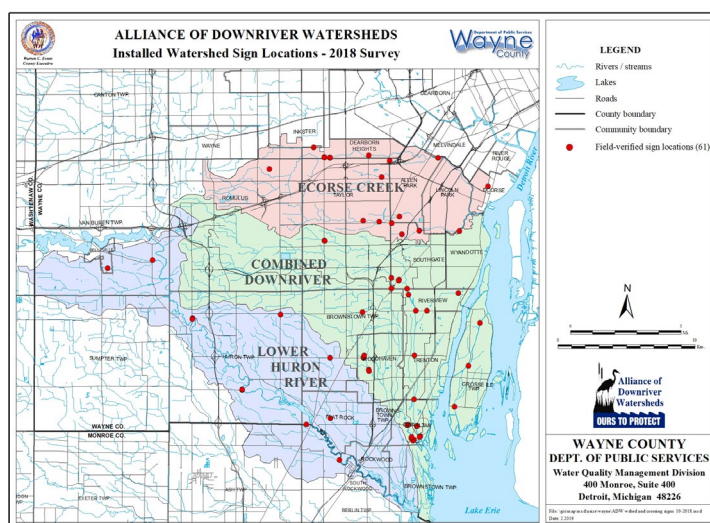
#### System Labeling and Signage - Watershed Signage Field Inventory Project

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

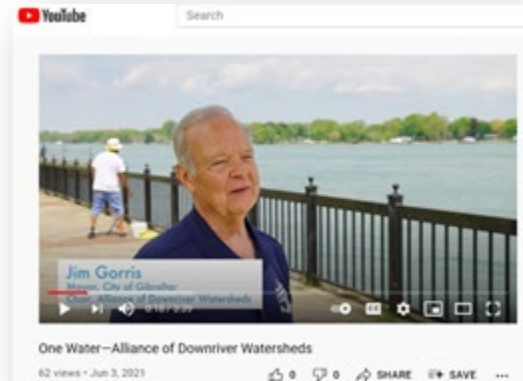
Topics: J, K

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



### One Water Campaign

In 2019 the Freshwater Forum at Cranbrook, Great Lakes Water Authority (GLWA) and the Southeast Michigan Council of Governments (SEMCOG) developed a “One Water” regional water resource public outreach campaign. See <https://semcog.org/mionewater>. Goals included fostering stewardship, encouraging citizens to adopt best practices to protect water resources and infrastructure at the household level, and supporting long-term investments in water. The project produced and coordinated messaging and delivery of outreach materials for use by SEMCOG’s members and Partners for Clean Water, GLWA customers, and other interested groups. Educational messages were also rolled out at a regional level simultaneously through social media, websites, videos, radio, TV, outdoor advertising, and print-based methods. Primary campaign topics included water resources in the Great Lakes: drinking water, wastewater, stormwater, and natural resources that are connected to water resource priorities.



In May of 2021 the ADW worked with SEMCOG staff to produce a “One Water” video for the partner series that highlights collaborative water resource protection efforts in the Downriver area, <https://youtu.be/ygHr-5RwktI>.

SEMCOG’s 2019-20 and 2020-21 Southeast Michigan Partners for Clean Water Annual Reports are available here: <https://semcog.org/stormwater>. During the reporting period, an ADW representative regularly attended Partners for Clean Water and One Water campaign meetings (September 17, 2019; January 21, 2020; June 4, 2020; December 3, 2020; March 23, 2021). Collaborative opportunities were reported to ADW members at their quarterly meetings during the reporting period.

### ADW Leadership Communication

In 2019, the ADW budgeted funds to develop a plan to improve communication and awareness of the ADW with member leadership (councils, mayors, boards, city managers, etc). A secondary goal is to provide brief updates that can be used by ADW members for further distribution. During this reporting period, the ADW:

- Produced a 10-15-minute slide presentation to be given at ADW leadership council/board meetings with goal of presenting to each ADW member community once over the next 2-3 years. Focus of presentation is to raise awareness and celebrate successes.
- Produced and distributed an e-newsletter in June and September “News from the Alliance of Downriver Watersheds.” The newsletter, delivered by email to ~250 recipients, features information about the ADW and its projects, member highlights, and stormwater pollution prevention tips.



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

Topics: A-K

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

During the reporting period, the ADW developed a plan and content for a public outreach landing page at [www.allianceofdownriverwatersheds.com](http://www.allianceofdownriverwatersheds.com) to facilitate promotion and outreach of the county-wide complaint tracking and response system. The web landing page is anticipated to launch by January 2022.

**Permittees should report any individual activities to promote the county's complaint tracking and response system.**

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

Topics: B, C

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.

During the reporting period, the ADW developed a plan and content for a public outreach landing page at [www.allianceofdownriverwatersheds.com](http://www.allianceofdownriverwatersheds.com) to facilitate promotion and outreach of water resource protection workshops. The web landing page is anticipated to launch by January 2022.

**Permittees should report any individual activities to promote regional water resource protection workshops.**

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

Topics: A, G

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.

##### *Household Hazardous Waste Collection Days*

Wayne County continued to hold Household Hazardous Waste Day collections in 2019. Due to the COVID-19 pandemic, Wayne County did not hold Household Hazardous Waste Day collection events in 2020 and 2021. The event held in October 2019 was located within the ADW.

##### **2019 Events**

In 2019, four (4) Household Hazardous Waste Days were held for Wayne County residents including one in the ADW. This event held in the ADW was held in Taylor on October 19, 2019 at the Wayne County Community College District.

During the reporting period, the ADW developed a plan and content for a public outreach landing page at [www.allianceofdownriverwatersheds.com](http://www.allianceofdownriverwatersheds.com) to facilitate promotion and outreach of the county's household hazardous waste reduction program. The web landing page is anticipated to launch by January 2022.

See also Activity #1. The ADW published a tip promoting resident use of the county's program in the 2020 Alliance of Downriver Watersheds Community Calendar.

Permittees should report any individual activities to promote the county's household hazardous waste collection days.

### Individual Public Education BMPs

[Permittees need to check your individual SWPPI for activities you committed to and include reporting on those here. Examples may include brochures distributed, items posted to your website, your own environmental festivals, e-waste pick up days, bulk item pick up days, cable channel announcements, advertising the household hazardous waste days, storm drain grates installed with no dumping signs, etc.]

### Evaluation of Effectiveness Summary

Evaluation of the overall effectiveness of the PEP consists of a combination of both the accumulated measures of the effectiveness of the PEP's individual activities (shown above) and a measure of the effectiveness of the sum of all the activities through a carefully developed coordinated survey that was conducted by the ADW in 2016. "Resident Survey on Local Waters," results are reported in the Educational Resources section of the ADW website:

<https://allianceofdownriverwatersheds.com/educational-resources/>.

During the current reporting period, the accumulated measures of individual activities (shown above), provide the basis for measuring the PEP's effectiveness.

## **Alliance of Downriver Watersheds**

### **Section 5: Illicit Discharge Elimination Plan (IDEP) Progress Report**

The Alliance of Downriver Watersheds works collaboratively to effectively and efficiently identify and eliminate illicit discharges within the ADW via an Illicit Discharge Elimination Plan (IDEP). The ADW strategy has been to evaluate the status and trends of surface waters in the ADW to identify priorities, followed by investigation and remediation of problem areas. In addition, in 2017, the ADW members submitted a Collaborative Illicit Discharge Elimination Plan along with their 2017 Stormwater Discharge Permit Applications. The Collaborative IDEP was approved by EGLE in July 2019, however, several ADW member communities have not received approved 2017 permits as of the time of this reporting. The Collaborative IDEP presents the watershed-wide priority action plan that is being pursued to effectively and efficiently identify and eliminate illicit discharges within the ADW. The plan consists of existing and planned activities and strategies, anticipated through the duration of the permit, that ADW members are individually and collectively implementing to identify and eliminate illicit discharges and reduce pathogen levels in the Ecorse Creek, Combined Downriver, and Lower Huron River watersheds. This collaborative plan builds on the collective knowledge of the ADW members and implementation team. Specifically, the plan starts by evaluating the status and trends of surface waters in the ADW to identify priorities, followed by investigation and remediation of problem areas. Such a strategy focuses resources on the most likely sources of pollution or illicit discharge, rather than on areas with low likelihoods of problems.

The plan identifies 10 major activities that will be performed during the course of the MS4 permit. In addition, SOPs and forms were developed and included in the Collaborative IDEP. These SOPs and forms can be utilized by ADW members.

Collaborative IDEP efforts began in 2007 when the ADW budgeted \$101,094 for Wayne County Department of Public Services to provide staff training and to perform problem area identification across the watershed area. Since 2010, the ADW has budgeted over \$840,000 for collaborative IDEP activities. Over 150 ADW member staff have received IDEP training and Wayne County alone has performed IDEP advance investigation (specifically facility dye-testing) at over 280 commercial and municipal facilities throughout the ADW watershed.

#### *Coordinated Complaint Response*

The ADW members continue to promote the use of the Wayne County Department of Public Services telephone “hot line” (888.223.2363) to log and coordinate response to environmental complaints and concerns of all types. The ADW promotes this hot line in the biennial watershed calendar as well as on the home page of the ADW website. [www.allianceofdownriverwatersheds.com](http://www.allianceofdownriverwatersheds.com)

- [MS4s indicate where you have done promotion of the hot line number]

Between October 1, 2019 and September 30, 2021, WCDPS ESD received and responded to 21 environmental concerns within the ADW watersheds. Several of these reports were received from ADW community staff, Wayne County Roads, and Wayne County Drains staff reporting environmental concerns to WCDPS ESD as a result of routine field operations.

[MS4s indicate if you received any complaints directly, how they were addressed, findings, etc].

### Inventory of Facilities for Dye Testing

As part of the development of the MS4 permit application and the Collaborative IDEP, an inventory of ADW member owned facilities was performed. The purpose of this task was to determine how many facilities are left to be dye tested and identify those in priority areas. This involved a comparison of survey data collected from ADW members, available GIS data, and records of facilities already dye tested. The list of facilities and their priority level was included as part of the Collaborative IDEP. The ADW will utilize this list to schedule and perform future dye testing of ADW member-owned facilities.

### Advanced Investigations (October 2019-September 2021)

#### Dye Testing ADW Member Facilities

Wayne County ESD continued to support and implement the ADW's Collaborative IDEP activities. This included updating the prioritized listing and map of municipal and public school facilities covered under the ADW's Collaborative IDEP. In 2019, site evaluations and dye-test inspections were performed at 15 facilities, including 14 on the ADW prioritized dye testing list. No illicit connections, discharges or environmental concerns were identified at these facilities. Four inspections occurred in the Ecorse Creek watershed and eleven occurred in the Combined Downriver watershed. Site Evaluations and inspections occurred in the cities of Romulus (1), Lincoln Park (2), Taylor (2), Riverview (3), and Woodhaven (7). All of the ADW member facilities identified in the High priority IDEP area are dye tested. 62 facilities remain to be dye tested including 9 facilities identified as Medium priority.

Due to the COVID-19 pandemic and in order to adhere to COVID-19 guidelines and to help prevent the spread of COVID-19, facility dye test inspections were not performed during 2020 and 2021.

Since 2011, 348 facilities were dye-tested in the ADW. Forty-nine illicit connections were identified at eleven facilities; twelve illicit discharges were identified at nine facilities, and six facilities with ten environmental concerns. WCDPD ESD estimates that 815,720 gallons of polluted water will be removed from ADW waterways per year once all corrections are made.

The IDEP priority map and list of ADW member facilities and their dye test inspection status are included with this report.

- [MS4s indicate if you have done additional IDEP inspections/activities on your own during the reporting period and include findings, actions, enforcement, and results]
- [MS4s indicate if there were any significant illicit discharges, estimated volume and load discharged, and the locations of the discharge into both the regulated MS4 and receiving water] Per Question 2 in MiWaters.



County Road/Stream Crossing Dry Weather Screening (in Van Buren Township)

Between October 2019 and September 30, 2021, WCDPS surveyed 80 County Road/stream crossings during dry weather in the portion of Van Buren Township that is located in the ADW. One hundred forty-three (143) outfalls were screened. Fourteen outfalls had dry weather flow and were sampled for *Escherichia coli* (*E. coli*). Below is a table summarizing the dry weather samples collected in Van Buren Township within the ADW watershed and crossing survey activities.

Year	# of Crossings	# of Outfalls	# with Dry Weather Flow
<b>2019</b>	0	0	0
<b>2020</b>	13	32	0
<b>2021</b>	67	111	14
<b>Totals</b>	80	143	14

Samples	# of Samples	# of Samples 0-1000 CFU/100mL	# of Samples 1000-5000 CFU/100mL	# of Samples >5000 CFU/100mL
<b>Initial</b>	14	14	0	0
<b>Follow up</b>	0	0	0	0
<b>Totals</b>	14	14	0	0

ADW Collaborative IDEP Training

On May 4, 2021, the ADW held a virtual workshop to review the Collaborative IDEP with the ADW members. Members were provided with information on tasks they are required to do individually and the records they should maintain for reporting purposes. Resources for members were also provided, including: routine field work log, complaint tracking form, outfall inspection form, and IDEP tip card.

IDEP Training (October 2019-September 2021)

Between October 1, 2019 and September 30, 2021, 42 employees from ADW member entities participated in the three Regional IDEP training workshops sponsored by the Southeast Michigan Council of Governments (SEMCOG). WCDPS continued participating in the Regional Training group being coordinated by SEMCOG.

- On October 23 and 24, 2019, two IDEP Advanced Investigator training workshops were held at the Lathrup Village Community Center in Lathrup Village. Twenty-four employees representing ADW member entities attended the Advanced Investigator training. A total of 110 persons attended over the two days.
- One IDEP Alert Observer training workshop was presented in 2020. Due to the COVID-19 pandemic, the workshop was conducted online. The online training workshop was held on November 10, 2020. A total of 180 persons from 48 public entities attended the session. Eighteen attendees represented five ADW member communities including Allen Park (1), Dearborn Heights (1), Romulus (4), Taylor (3), and Wayne County (9).

[MS4s indicate what IDEP training you/your staff have completed during the reporting period including if you/your staff watched the recorded training available on the ADW website.]



### Outfall Mapping

As part of the effort associated with the ADW SAW Grant, in 2019, the ADW conducted outfall investigations along approximately 40 miles of ADW drainage courses and waterways locating an additional 265 discharge locations (previously unmapped) across ADW streams and drains as detailed in the following table. Of the 265 discharge structures that were located, 30 were determined to be private while 235 were determined to be municipal or agency owned.

Current ADW Members	Provided Outfall Locations	Located Outfalls		Grand Total (Provided + Located)
		Private	Municipal	
Allen Park	0	1	37	38
Belleville	0	0	0	0
Dearborn Heights	56	0	0	56
Ecorse	0	0	2	2
Flat Rock	0	17	65	82
Gibraltar	37	0	2	39
Grosse Ile Township	0	0	0	0
Inkster	0	0	0	0
Lincoln Park	0	1	39	40
Melvindale	0	0	3	3
Riverview	0	2	9	11
Rockwood	0	4	17	21
Romulus	90	0	0	90
Southgate	0	0	16	16
Sumpter Township	0	0	0	0
Taylor	467	0	0	467
Van Buren Township	336	0	0	336
Wayne County	0	0	0	0
Westland	48	0	0	0
Woodhaven	0	3	41	44
Woodhaven-Brownstown School District	37	2	0	39
Wyandotte	0	0	4	4
<b>Total</b>	<b>1,015</b>	<b>30</b>	<b>235</b>	<b>1,280</b>

[MS4s indicate if you've located and mapped new or newly discovered outfall locations during this reporting period.]

### Bacteria Sampling

In 2020, HRWC conducted an investigation into bacteria sourcing in the ADW. Across a five-week period from August through September, HRWC sampled at 10 sites, including all nine long-term sites and one former investigative site (Hand Drain at West Road). The 10 sites were analyzed for *E. coli* counts by RTI Laboratories and for microbial source tracking (MST) by Michigan State University to identify if human, canine, or bovine sources are present. Results are summarized in the tables and text below.

# of Sample Sites	# of Total Samples	Min 5-week Geomean*	Max 5-week Geomean*	Samples > 1,000*	Samples > 5,000*	Sites w/ >1,000*	Sites w/ >5,000*
10	50	142	2,532	12	0	5	0

\*All bacteria counts are *E. coli* cfu/100 ml samples.

Sites with single event samples > 1,000 cfu/100 ml:

Site	5-week Geomean	Max Event Sample
Frank & Poet Cr. @ Grange Rd.	439	2,183
Brownstown Cr. @Hall Rd.	2,532	4,894
S. Ecorse Cr. @ Reeck Rd.	1,082	3,917
N. Ecorse Cr. @ Beech Daly Rd.	743	1,700
Hand Drain @ West Rd.	253	1,200

Sites with single event samples > 1,000 *E. coli* cfu/100 ml were additionally sampled for MST analysis. Results of MST analysis are below. Numbers represent a relative concentration of genetic material (DNA) with identifiable markers for the hosts (human, cattle (bovine) or dogs (canine)) identified. ND indicates that the genetic material for the marker was below the method's detection limit.

Site	Bact. Human	HF183 Human	Bact. Bovine	Bact. Canine
Frank & Poet Cr. @ Grange Rd.	ND	ND	378	1,570
Brownstown Cr. @Hall Rd.	ND	ND	ND	7,080
S. Ecorse Cr. @ Reeck Rd.	464	ND	385	354
N. Ecorse Cr. @ Beech Daly Rd.	ND	441	ND	7,080
Hand Drain @ West Rd.	ND	ND	ND	393

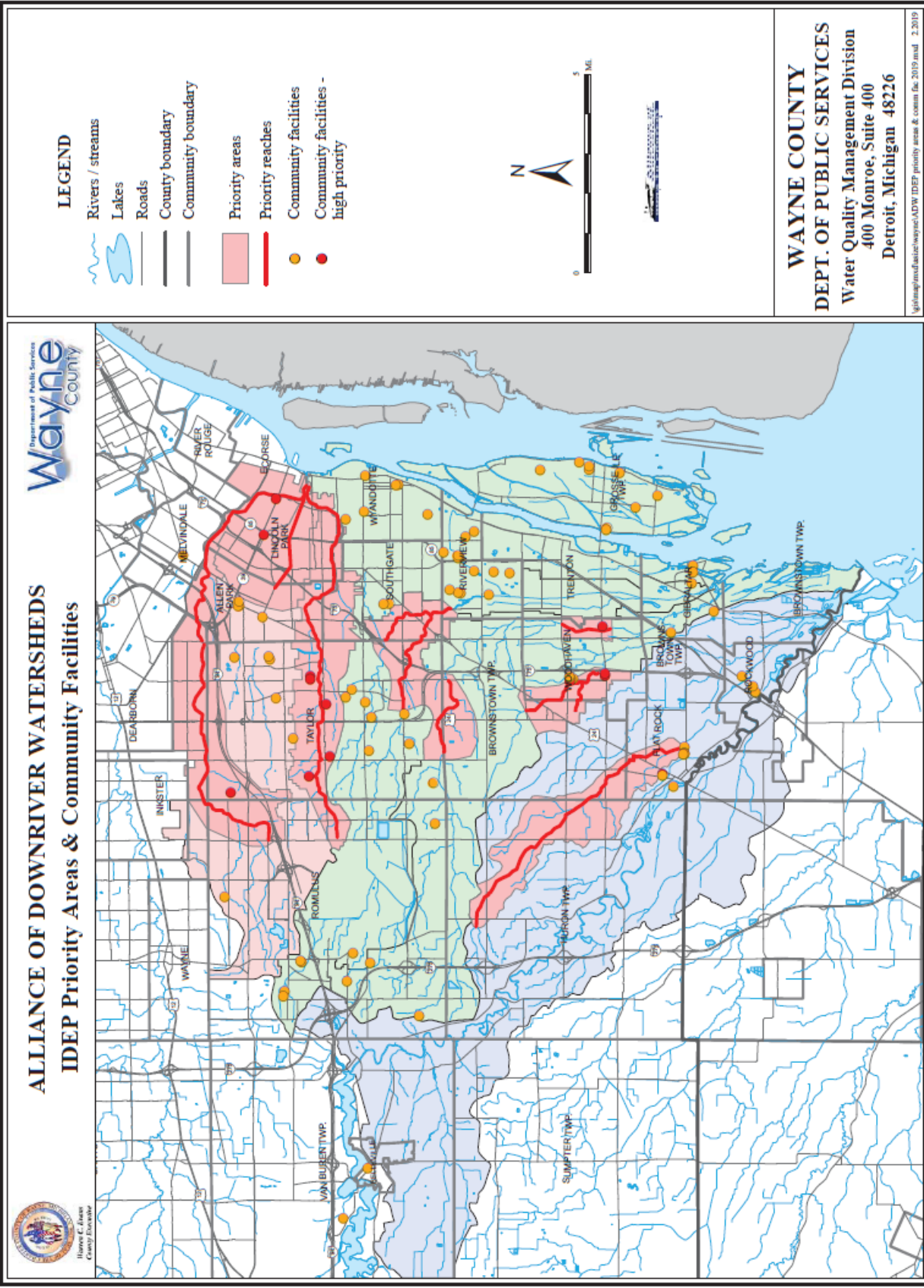
In September 2021, HRWC hired Environmental Canine Services LLC for follow-up monitoring to identify the location of human-hosted bacteria along two stream segments where MST results indicated human sources by either of the two methods used. Results are still being processed and will be communicated in the following reporting period.

### Septic Systems [if applicable in your community]

[MS4s should summarize if any inspections took place, any problems found, how they corrected them, any areas taken off septic] If none, delete this section.

### Updating Sewer Maps

[MS4s should summarize any updates to sewer maps during reporting period] If none, delete this section.



ADW Collaborative IDEP  
Status of Member Facilities Dye Test Inspections

September 2021

BUILDING	ADDRESS	CITY	SUBBASIN	IDEP_PRIORITY	STATUS
FLAT ROCK DPS GARAGE	27999 ARSENAL RD	FLAT ROCK	Silver	HIGH	tested 12/8/2010 - dye test OK
LINCOLN PARK ANIMAL CONTROL	500 SOUTHFIELD RD	LINCOLN PARK	North Branch	HIGH	tested 6/13/2019 - dye test OK
LINCOLN PARK HISTORICAL MUSEUM	1335 SOUTHFIELD RD	LINCOLN PARK	North Branch	HIGH	tested 6/13/2019 - dye test OK
TAYLOR FIRE STATION	23345 GODDARD RD	TAYLOR	Sexton-Kilfoil	HIGH	tested 6/5/2019 - dye test OK
HOLLAND ELEMENTARY SCHOOL	10201 HOLLAND RD	TAYLOR	Sexton-Kilfoil	HIGH	tested in 2005 per WTA
ROBERT J WEST MIDDLE SCHOOL	10575 WILLIAM ST	TAYLOR	Sexton-Kilfoil	HIGH	tested in 2005 per WTA
KINYON ELEMENTARY SCHOOL	10455 MONROE	TAYLOR	Sexton-Kilfoil	HIGH	tested in 2005 per WTA
TAYLOR HIGH SCHOOL	11211 BEECH DALY RD	TAYLOR	Sexton-Kilfoil	HIGH	tested in 2007 (as Truman HS)
HOOVER MIDDLE SCHOOL	27101 BEVERLY RD	TAYLOR	North Branch	HIGH	tested in 2008 per WTA
WOODHAVEN ANIMAL SHELTER	21860 VAN HORN RD	WOODHAVEN	Brownstown	HIGH	tested 6/4/2019 - dye test OK
WOODHAVEN DPW	21840 VAN HORN RD	WOODHAVEN	Brownstown	HIGH	tested 6/4/2019 - dye test OK
WOODHAVEN FIRE STATION 2	18705 VAN HORN RD	WOODHAVEN	Blakey	HIGH	tested 6/4/2019 - dye test OK
WOODHAVEN FIRE STATION 1	23040 HALL RD	WOODHAVEN	Brownstown	HIGH	tested 6/4/2019 - dye test OK
KINGSWOOD NATURE PARK	14266 KINGSWOOD	RIVERVIEW	Frank and Poet	MEDIUM	11/27/2019 no dye test needed
KENNEBEC PARK	17309 KENNEBEC ST	RIVERVIEW	Frank and Poet	MEDIUM	11/27/2019 no dye test needed
RIVERVIEW FIRE STATION	18500 CIVIC PARK DR	RIVERVIEW	Frank and Poet	MEDIUM	tested 12/13/2019
FOREST ELEMENTARY SCHOOL	19400 HAMPTON ST	RIVERVIEW	Frank and Poet	MEDIUM	
RIVERVIEW HIGHLAND GOLF COURSE	15015 SIBLEY RD	RIVERVIEW	Frank and Poet	MEDIUM	
SEITZ MIDDLE SCHOOL	17800 KENNEBEC ST	RIVERVIEW	Frank and Poet	MEDIUM	
HUNTINGTON ELEMENTARY SCHOOL	17752 KENNEBEC ST	RIVERVIEW	Frank and Poet	MEDIUM	
TAYLOR FIRE STATION	23747 EUREKA RD	TAYLOR	Frank and Poet	MEDIUM	tested 12/6/2019
EUREKA HEIGHTS ELEMENTARY SCHOOL	25125 EUREKA RD	TAYLOR	Frank and Poet	MEDIUM	tested in 2008 per WTA
LAKE OF TAYLOR GOLF COURSE	25505 NORTHLINE RD	TAYLOR	Frank and Poet	MEDIUM	
CIVIC CENTER (COMMUNITY CENTER)	24135 HALL RD	WOODHAVEN	Brownstown	MEDIUM	site evaluation 11/29/2019
WOODHAVEN SEWER DEPT (WATER GARAGE)	21869 WEST RD	WOODHAVEN	Brownstown	MEDIUM	site evaluation 11/29/2019
CIVIC CENTER SOUTH PAVILION	24135 HALL RD	WOODHAVEN	Brownstown	MEDIUM	tested 12/13/2019
WOODHAVEN CITY HALL	21869 HALL RD	WOODHAVEN	Brownstown	MEDIUM	
WOODHAVEN POLICE STATION	21869 WEST RD	WOODHAVEN	Brownstown	MEDIUM	
ALLEN PARK LIBRARY	8100 ALLEN RD	ALLEN PARK	North Branch		
ALLEN PARK FIRE STATION	6730 ROOSEVELT	ALLEN PARK	North Branch		
ALLEN PARK DPS	16125 WHITE AVE	ALLEN PARK	North Branch		
ALLEN PARK PARKS AND RECREATION	15800 WHITE AVE	ALLEN PARK	Sexton-Kilfoil		
BELLEVILLE FIRE STATION	25 2ND ST	BELLEVILLE	Lower Huron		
FLAT ROCK LIBRARY	25500 GIBALTAR RD	FLAT ROCK	Silver Creek		
FLAT ROCK POLICE DEPT	25500 GIBALTAR RD	FLAT ROCK	Silver Creek		
FLAT ROCK CITY HALL	25500 GIBALTAR RD	FLAT ROCK	Silver Creek		
FLAT ROCK FIRE DEPT	25500 GIBALTAR RD	FLAT ROCK	Silver Creek		
FLAT ROCK ANIMAL SHELTER	HUROC PARK	FLAT ROCK	Huron River		
FLAT ROCK DPS YARD	27999 ARSENAL RD	FLAT ROCK	Cook-Gladding		
CARLSON HS SCHUMATE MS	30448 W JEFFERSON AVE	GIBALTAR	Blakey		
GIBALTAR DPW	29450 MUNRO AVE	GIBALTAR	Detroit River		
GIBALTAR COMMUNITY CENTER	29340 S GIBALTAR RD	GIBALTAR	Detroit River		
PARSONS ELEMENTARY SCHOOL	14473 MIDDLE GIBALTAR RD	GIBALTAR	North Branch		
GROSSE ILE DPS	8555 GROH RD	GROSSE ILE TWP	Detroit River		
MERIDIAN ELEMENTARY SCHOOL	26700 MERIDIAN RD	GROSSE ILE TWP	Detroit River		
GROSSE ILE ANIMAL SHELTER	25799 3RD ST	GROSSE ILE TWP	Detroit River		
WATER'S EDGE RECREATION/RESTUARANT BLDG	25215 W RIVER RD	GROSSE ILE TWP	Detroit River		
WATER'S EDGE MUNICIPAL GOLF COURSE	25215 W RIVER RD	GROSSE ILE TWP	Detroit River		
GROSSE ILE HIGH SCHOOL	7800 GRAYS DR	GROSSE ILE TWP	Detroit River		
GROSSE ILE TWP SCHOOLS	23276 E RIVER RD	GROSSE ILE TWP	Detroit River		
GROSSE ILE MIDDLE SCHOOL	23270 E RIVER RD	GROSSE ILE TWP	Detroit River		
PARKE LANE ELEMENTARY SCHOOL	21610 PARKE LN	GROSSE ILE TWP	Detroit River		
MELVINDALE PUBLIC LIBRARY	18650 ALLEN RD	MELVINDALE	North Branch		
RIVERVIEW DPW	18550 KRAUSE RD	RIVERVIEW	Detroit River		
RIVERVIEW HIGH SCHOOL	12431 LONGSDORF ST	RIVERVIEW	Detroit River		
RIVERVIEW SCHOOLS WAREHOUSE	13425 COLVIN ST	RIVERVIEW	Detroit River		
MEMORIAL ELEMENTARY SCHOOL	13425 COLVIN ST	RIVERVIEW	Detroit River		
RIVERVIEW SCHOOLS OPERATIONS BLDG	13425 COLVIN ST	RIVERVIEW	Detroit River		
GSRP PRESCHOOL	13249 PENNSYLVANIA RD	RIVERVIEW	Detroit River		
ROCKWOOD PUBLIC WORKS & SALT STORAGE	32755 WOOD ST	ROCKWOOD	Lower Huron		
ROCKWOOD MUNICIPAL BLDG INCL POLICE & FIRE	32409 FORT RD	ROCKWOOD	Silver		
ROCKWOOD COMMUNITY CENTER	32001 FORT RD	ROCKWOOD	Silver		
HALE CREEK ELEMENTARY SCHOOL	16200 HARRISON RD	ROMULUS	Blakey		
BARTH ELEMENTARY SCHOOL	38207 BARTH RD	ROMULUS	Blakey		
ROMULUS ATHLETIC CENTER	35765 NORTHLINE RD	ROMULUS			
ROMULUS ANIMAL SHELTER	12300 WAYNE RD	ROMULUS			
ROMULUS COMMUNITY SCHOOLS	36540 GRANT RD	ROMULUS	Zink Drain		
ROMULUS HIGH SCHOOL	9650 WAYNE RD	ROMULUS	Vealey Drain		

**ADW Collaborative IDEP  
Status of Member Facilities Dye Test Inspections**

September 2021

ROMULUS VIRTUAL LEARNING CENTER	9650 WAYNE RD	ROMULUS	Vealey Drain		
WICK ELEMENTARY SCHOOL	36900 WICK RD	ROMULUS	Tyler Drain		
ROMULUS MIDDLE SCHOOL	37300 WICK RD	ROMULUS	Vealey Drain		
ROMULUS ELEMENTARY SCHOOL	32200 BEVERLY RD	ROMULUS	North Branch		
SOUTHGATE MUNICIPAL GOLF COURSE	14600 REAUME PKWY	SOUTHGATE	Detroit River		
SOUTHGATE ANIMAL CONTROL	14300 REAUME PKWY	SOUTHGATE	Detroit River		
TAYLOR SCHOOL DISTRICT	23033 NORTHLINE RD	TAYLOR	Frank and Poet		tested in 2004 per WTA
CLARENCE RANDALL ELEMENTARY SCHOOL	8699 ROBERT ST	TAYLOR	Sexton-Kilfoil		tested in 2005 per WTA
JOHNSON PRESCHOOL	20500 WOHLFEIL ST	TAYLOR	Sexton-Kilfoil		tested in 2005 per WTA
BLAIR MOODY ELEMENTARY SCHOOL	8280 HIPPI ST	TAYLOR	Sexton-Kilfoil		tested in 2005 per WTA
BERNICE MCDOWELL ELEMENTARY SCHOOL	22929 BREST	TAYLOR	Frank and Poet		tested in 2006 per WTA
TAYLOR PARKS ELEMENTARY SCHOOL	20614 PINECREST ST	TAYLOR	North Branch		tested in 2006 per WTA
MYERS ELEMENTARY SCHOOL	16201 LAUREN DR	TAYLOR	Blakely		tested in 2007 per WTA
TAYLOR CAREER AND TECHNICAL CENTER	9601 WESTLAKE	TAYLOR	Sexton-Kilfoil		tested in 2008 per WTA
TAYLOR SPORTSPLEX	13333 TELEGRAPH	TAYLOR	Frank and Poet		
TAYLOR PUBLIC LIBRARY	12303 PARDEE RD	TAYLOR	Frank and Poet		
GIBRALTAR SCHOOL DIST GARAGE	28291 FORT ST	TRENTON	Brownstown		
HARBOR CLUB GOLF COURSE	48356 DENTON RD	VAN BUREN TWP	Lower Huron		
WYANDOTTE DPW	4201 13TH ST	WYANDOTTE	Detroit River		
YACK ARENA	3131 3RD ST	WYANDOTTE	Detroit River		
WYANDOTTE FIRE STATION #1	266 MAPLE ST	WYANDOTTE	Detroit River		
WYANDOTTE POLICE STATION	2015 BIDDLE AVE #1	WYANDOTTE	Detroit River		
WYANDOTTE FIRE STATION #2	1093 FORD AVE	WYANDOTTE	Detroit River		
WILSON MIDDLE SCHOOL	1275 15TH ST	WYANDOTTE	Detroit River		

No. of ADW Member facilities to Dye Test per IDEP Plan	91
No. dye tested or confirmed dye tested 2019-2021	14
No dye tested prior to 2019	15
No. of ADW Member facilities remaining to dye test	62

## Alliance of Downriver Watersheds

### Section 7: Post Construction Stormwater Runoff Program Progress Report

#### SAW Stormwater Management Plan

In December 2019, the ADW submitted its SAW Stormwater Management Plan. The plan was approved by EGLE in 2020. Portions of the plan included work done by the ADW directly related to Post Construction Stormwater Runoff control, as detailed below.

#### Post Construction Standards

Through the SAW grant, the ADW was able to work toward meeting the new MS4 permit requirements for post-construction. The ADW used SAW funds to work as part of a regional effort of drafting updates to the local counties' storm water standards. A summary of the regional coordination efforts to revise post-construction stormwater management standards can be found in the SAW Storm Water Management Plan on pages 36-38 [ADW-SWMP-2019.pdf \(allianceofdownriverwatersheds.com\)](#).

#### GI Concept Plans

Under this task of the SAW grant, the ADW identified 19 conceptual green infrastructure opportunities for ADW maintenance facilities, municipal park lands, and open spaces. Concept drawings and cost opinions were prepared for each of these sites. Details were described in the SAW Storm Water Management Plan and can be found on pages 50-66. [ADW-SWMP-2019.pdf \(allianceofdownriverwatersheds.com\)](#)

#### Storm Water Standards Update

Wayne County adopted new stormwater standards in September 2021. ADW communities are now in the process of either adopting these standards or adopting their own standards that meet the MS4 requirements.

[State which option you are using and the timeline for completion.]

#### Maintenance Agreements

Between October 2019 and September 2021, [insert community name] entered into # maintenance agreements for storm water BMPs, as listed below.

[List Locations/description of BMPs that had new maintenance agreements in the reporting period.]

In addition, the following actions were taken during the reporting period dealing with existing maintenance agreements.

[Describe any cases during the report period where you may have received complaints, done inspections, actions taken, etc]

## **Alliance of Downriver Watersheds**

### **Section 8A: Pollution Prevention and Good Housekeeping Program (P2/GH) Structural Controls, Standard Operating Procedures, Catch Basin Cleaning, and Street Sweeping Progress Report**

#### *Inventory and Prioritization of Municipal Facilities*

Several years ago, an inventory of 200 ADW member-owned municipal facilities was performed. For each of their facilities, ADW members completed a form identifying the types of storm water controls at the site, and the pollutants stored at the site. The form was developed to aid in determining which facilities fell under the guidelines for high, medium, and low priority facilities. Twenty (20) of the 200 sites were considered “High” priority facilities and have specific procedures in place in order to ensure that proper steps are followed in order to minimize and prevent the discharge of pollutants to storm water from the site. Site visits were completed by the consultant team in 2017 of the 20 high priority sites and SOPs were developed for 15 of the properties that did not have a SOP in place. At each high priority site, the following assessments were made:

- Number and type of storm water controls on the site
- List of significant materials stored on-site that could pollute storm water; the description of the handling and storage requirements for each significant material; and the potential to discharge the significant material
- Routine and comprehensive inspection schedule
- Methods for training employees on good housekeeping practices

[MS4s should add details specific to their community]

#### **Document/Demonstrate Implementation of the procedure for inspecting, cleaning, and maintaining catch basins to ensure proper performance**

[MS4s, indicate inspection and maintenance activities you’ve completed during the reporting period and in accordance with approved procedures related to catch basins.]

#### **Document/Demonstrate Implementation of the procedure for sweeping streets, parking lots, and other impervious surfaces.**

[MS4s, indicate activities you’ve completed with as much as details as possible, during the reporting period and in accordance with approved procedures related to street sweeping, parking lots and other impervious surfaces.]



## **Alliance of Downriver Watersheds**

### **Section 8B: Pollution Prevention and Good Housekeeping Program Progress Report (P2/GH) Operation and Maintenance Activities and Employee Training Progress Report**

#### *PP/GH Training*

A Stormwater Pollution Prevention and Good Housekeeping, IDEP Alert Observer Training workshop was held in the afternoon of November 10, 2020. Fourteen (14) employees representing ADW member entities attended this workshop including Brent Florek (consultant representing a number of ADW communities, Allen Park (1), Riverview Schools (2), Romulus (5), Van Buren Township (1), and Wayne County (4).

[MS4s should add any other PP/GH training attended by staff including dates/number of staff/etc. Include any training required for new employees, consultants, etc.]

#### *BMP Implementation*

[MS4s, reference your permit and indicate operations and maintenance activities you've completed during the reporting period and in accordance with approved procedures for the activities listed below].

#### **Road, Parking Lot, and Sidewalk Maintenance**

[MS4s, describe the BMPs implemented or explanation of why BMPs were not implemented]

#### **Bridge Maintenance**

[MS4s, describe the BMPs implemented or explanation of why BMPs were not implemented]

#### **Right-of-Way Maintenance**

[MS4s, describe the BMPs implemented or explanation of why BMPs were not implemented]

#### **Unpaved Road Maintenance**

[MS4s, describe the BMPs implemented or explanation of why BMPs were not implemented]

#### **Cold Weather Operations (plowing, sanding, deicing, snow pile disposal)**

[MS4s, describe the BMPs implemented or explanation of why BMPs were not implemented]

#### **Maintenance of permittee-owned vehicles (police, fire, bus, public works) including certifying that no vehicles are washed with a discharge to the regulated MS4**

[MS4s, describe the BMPs implemented or explanation of why BMPs were not implemented]



## Alliance of Downriver Watersheds

### **Additional Information: MS4 Watershed-Based General Permit Requirements Progress Evaluation – Section 9 – TMDL Evaluation**

Permittees within the Alliance of Downriver Watersheds have worked with the Huron River Watershed Council and Wayne County to continue to execute long-term monitoring activities on behalf of the ADW and to follow the ADW water quality monitoring program to collect data and assess the water quality within the watershed. While the current permit does not specifically require reporting on TMDLs, the watershed partners have funded monitoring to determine progress toward meeting each TMDL. This monitoring program is also used to determine status and trends of water quality within the Alliance of Downriver Watershed affected by storm water discharges.

Following is a summary of monitoring efforts in 2020 and 2021, with brief summaries of monitoring efforts since the beginning of the ADW. The monitoring program is scheduled such that the majority of data is collected from spring to fall and the data is verified and compiled in early winter, with reporting in late winter. Details can be found in the annual monitoring report. Annual monitoring reports may be downloaded from the ADW website at <https://www.allianceofdownriverwatersheds.com/initiatives> or viewed at the HRWC website at <https://www.hrwc.org/wayne-results/>. The monitoring reports also include the current five-year monitoring strategy.

### **2020-2021 Monitoring**

**Stream Discharge:** Eight water-level stations (1 USGS station in Ecorse Creek Watershed and 7 sensors owned by Wayne County) are established at sites throughout the ADW (2 in Ecorse Creek, 3 in Combined Downriver, and 2 in Lower Huron, with an additional sensor used to provide atmospheric pressure). All stations have at least a 7-year record of continuous flow data generally covering the April-October time period. Stream discharge was measured numerous times at different water levels at all of the sites, including the long-term water chemistry monitoring sites, to allow translation from water level to discharge and calibrate annual changes in site characteristics. All of the data is quality checked and processed to produce a seasonal record and generate statistics to be included in the monitoring report.

**Water Chemistry:** HRWC conducts water quality monitoring annually during the growing season at nine long-term sites in Wayne County through its Chemistry and Flow Monitoring Program. Long-term sites help track changing conditions over time. HRWC also monitors at investigative sites located upstream of selected long-term sites to gain a better understanding of upstream conditions, or at smaller stream sites to investigate potential sources. They report the results of this monitoring following the inclusion of results through September. Each site is visited twice per month from April through September. During the reporting period, samples were not collecting in April through June 2020 due to stay-at-home orders from the COVID-19 pandemic. Furthermore, water samples could not be analyzed by the partnering municipal laboratory during 2020 due to staff limitations and building restrictions from COVID-19. Therefore, ADW had a reduced frequency of samples analyzed by a private laboratory (RTI Laboratories) and restricted sample collection in 2020 to the nine long-term monitoring sites. In 2021, the full frequency of sampling was analyzed by the Downriver Utility Wastewater Authority (DUWA) laboratory. During the 2021 monitoring season, the program was able to collect samples from the nine long-term sites as well as two investigative sites, including the Huron River at Willow Metropark and Frank & Poet Drain at Vreeland Road. Samples were processed by DUWA for total phosphorus, total suspended

solids, and *Escherichia coli* concentrations. Volunteers, along with support from HRWC and Wayne County staff, also directly measured in-stream conductivity, pH, total dissolved solids, temperature, and dissolved oxygen with handheld sondes.

In total, 11 sites were sampled in 2020 and 2021. Since the beginning of the Chemistry and Flow Monitoring program, 35 sites have been sampled and over 100 volunteers have been trained and involved in the program. In 2020 and 2021, volunteer involvement was limited in an effort to minimize the spread of COVID-19.

In 2020, HRWC also conducted an investigation into bacteria sourcing in the ADW. Across a five-week period from August through September, HRWC sampled at 10 sites, including all nine long-term sites and one former investigative site (Hand Drain at West Road). The 10 sites were analyzed for *E. coli* counts by RTI Laboratories and for microbial source tracking (MST) by Michigan State University to identify if human, canine, or bovine sources are present. Results are summarized in the tables and text below.

# of Sample Sites	# of Total Samples	Min 5-week Geomean*	Max 5-week Geomean*	Samples > 1,000*	Samples > 5,000*	Sites w/ >1,000*	Sites w/ >5,000*
10	50	142	2,532	12	0	5	0

\*All bacteria counts are *E. coli* cfu/100 ml samples.

Sites with single event samples > 1,000 cfu/100 ml:

Site	5-week Geomean	Max Event Sample
Frank & Poet Cr. @ Grange Rd.	439	2,183
Brownstown Cr. @Hall Rd.	2,532	4,894
S. Ecorse Cr. @ Reeck Rd.	1,082	3,917
N. Ecorse Cr. @ Beech Daly Rd.	743	1,700
Hand Drain @ West Rd.	253	1,200

Sites with single event samples > 1,000 *E. coli* cfu/100 ml were additionally sampled for MST analysis. Results of MST analysis are below. Numbers represent a relative concentration of genetic material (DNA) with identifiable markers for the hosts (human, cattle (bovine) or dogs (canine)) identified. ND indicates that the genetic material for the marker was below the method's detection limit.

Site	Bact. Human	HF183 Human	Bact. Bovine	Bact. Canine
Frank & Poet Cr. @ Grange Rd.	ND	ND	378	1,570
Brownstown Cr. @Hall Rd.	ND	ND	ND	7,080
S. Ecorse Cr. @ Reeck Rd.	464	ND	385	354
N. Ecorse Cr. @ Beech Daly Rd.	ND	441	ND	7,080
Hand Drain @ West Rd.	ND	ND	ND	393

In September 2021, HRWC hired Environmental Canine Services LLC for follow-up monitoring to identify the location of human-hosted bacteria along two stream segments where MST results indicated human sources by either of the two methods used. Results are still being processed and will be communicated in the following reporting period.

In summary, monitoring data shows the following key results in the ADW area:

- Total phosphorus concentration ranges across the nine long-term sites in the ADW continue to vary from year to year. The mean TP concentration across all long-term sites for 2020 was 0.9 mg/l with a median of 0.08 mg/l, both of which are above the target concentration of 0.05 mg/l (based on phosphorus TMDLs in the area). The bulk of the concentrations range between 0.06 mg/l and 0.12 mg/l, with a few samples exceeding this range by a considerable margin. Typically, these high concentrations are measured during or following storm event. As such, stormwater runoff is still a major pathway of overall phosphorus loading to the ADW waterways. At most long-term sites, there are no statistically-significant trends in TP, as concentrations vary year to year or are maintaining. However, the long-term site at the Huron River shows a slight decline in concentrations and Blakely Creek continues to show a statistically significant increase in TP concentrations.
- Mean concentrations of total suspended solids across the ADW are well below the runoff sample standard of 80 mg/l. The vast majority of samples from long-term sites in the ADW had TSS concentrations below the target threshold. The mean TSS concentration across all long-term sites for 2018 was 26.1 mg/l with a median of 13 mg/l, indicating most samples are quite clear of sediments, except for after large storm events.
- The data collected on bacteria (as *E. coli*) indicate that all long-term sites, except for the Huron River and Woods Creek, regularly exceed state standards. Long-term trends for *E. coli* in the ADW show no significant improvements and are either increasing bacteria counts or maintaining a consistent range. *E. coli* concentrations at Blakely Creek, Brownstown Creek, S. Ecorse Creek and N. Ecorse Creek are increasing, with most samples above the state single sample standards for Full Body Contact (300 *E. coli* cfu per 100 ml) and Partial Body Contact (1000 *E. coli* cfu per 100 ml). Mean *E. coli* concentrations in the ADW across all long-term sites for 2018 was 690 *E. coli* cfu per 100 ml with a median of 304 *E. coli* cfu per 100 ml, indicating consistently high *E. coli* concentrations across the ADW in exceedance of the Full Body Contact standards. During its bacteria source tracking investigation in 2020, sampling identified five sites of potential concern, including Brownstown Creek, Hand Drain, Frank & Poet Drain, South Ecorse Creek, and North Ecorse Creek. Microbial Source Tracking results indicated all five sites contain bacteria concentrations with canine source markers. As such, it appears that pet dogs are a prevalent source of bacteria contamination across the ADW watersheds. Frank & Poet and South Ecorse North Ecorse had bacteria sourced to cattle or cow-processed products like manure. North and South Ecorse each showed markers for human-sourced bacteria, though at low levels.
- All sites in the ADW except Woods Creek and the Huron River had average and median conductivity values that exceeded a standard set at 800  $\mu$ S. No discernible trends have been detected in conductivity data at long-term sites.
- Most samples at the nine long-term monitoring sites had values for dissolved oxygen that were within the normal range for Michigan surface waters. However, measurements at Silver Creek, Brownstown Creek, and N. Ecorse Creek continue to routinely not meet the state standard of 5 mg/l, with values as low as 1.1 mg/l during the peak of summer.

**Stream Biology:** Biological monitoring efforts are carried out through two macroinvertebrate collection programs. The two organizations (HRWC and Wayne County) meet periodically to assure comparable methods and data. The biological monitoring efforts of the Wayne County Department of Public Services, Water Quality Management Division and the Stream Teams continued with the following events:

- WCDPS/Stream Team Fall 2019 Bug Hunt; October 2019: 11 sites monitored

- WCDPS Winter Stonefly Search; February 2020: 1 site
- WCDPS/Stream Team Spring 2020 Bug Hunt; April/May 2020: Cancelled due to COVID-19
- WCDPS/Stream Team Fall 2020 Bug Hunt; October/November 2020: 9 sites
- WCDPS/Stream Team Spring 2021 Bug Hunt; April/May 2021: 9 sites monitored
- Number of students participating in the WCDPS/Stream Team bug hunts in Fall 2019: 137

Due to the COVID-19 pandemic in 2020 and 2021, Wayne County was unable to engage area students in the collection of benthic macroinvertebrates as done in previous reporting periods. As an alternative, Wayne County worked with HRWC to engage a small pool of volunteers to assist with macroinvertebrate collection.

In addition, the biological monitoring efforts of the Huron River Watershed Council and volunteers included the following events across four sites in the Lower Huron River Watershed:

- Fall River Round-Up, October 2019 – 3 sites
- Winter Stonefly Search, January 2020 – 1 site
- Spring River Round-Up, April 2020 – 0 sites – Cancelled due to COVID-19
- Fall River Round-Up, October 2020 – 2 sites
- Winter Stonefly Search, January 2021 – 2 sites
- Spring River Round-Up, April 2021 – 2 sites

#### **TMDL Progress Evaluation**

The TMDL plan for the ADW indicates that the ADW will evaluate pollutant loads from concentrations and stream flow estimates twice during the 5-year permit cycle. Most of the ADW member municipalities just recently received their new permits. The ADW has not had sufficient time to compile all the data necessary to model pollutant loads and estimate pollutant load reductions for the TMDL pollutants. The first such analysis will be completed prior to the next reporting due date and will be included in that report. At this time, the above data summary of stream flow, water chemistry, bacteria and aquatic biology will serve as the ADW assessment of water quality status related to TMDLs.

[Permittees can add monitoring activities they have engaged outside of the program developed by the ADW/HRWC/Wayne County.]

[MS4s should include a list of pollutants that were discharged (if any) including the estimate volume and load discharged, and the locations of the discharge into both the regulated MS4 and receiving water. Per question Section 8:2 in MiWaters]