



INTRODUCTION

This document fulfills Washtenaw County’s National Pollutant Discharge Elimination System (NPDES) Phase II municipal stormwater permit requirement for a periodic Progress Report. This report includes information on progress made during the reporting period July 2017 through December 2019 towards compliance with the six minimum measures and other commitments made in Washtenaw County’s 11/2017 Storm Water Management Plan (SWMP).

This document also reports on the assessment of water quality in the area affected by Washtenaw County’s stormwater discharge along with any changes made to Best Management Practices (BMPs) or Watershed Management Plans (WMP). The document follows reporting requirements specified in the permit and is organized by the six minimum measures, with additional reporting sections added at the end. The Huron River Watershed Council (HRWC) has provided language reflecting our partnership and collaborative efforts for various sections including water quality data, public participation plan, and public education activities.

Permittee: Washtenaw County MS4 - Washtenaw
Permit Number: MI0059599 (effective 12/01/17)
Mailing Address: 705 N. Zeeb Rd., P.O. Box 8645
Ann Arbor, MI 48107-8645

Authorized Facility
Contact: Evan Pratt
Title: Water Resources Commissioner
Telephone: 734-222-6860

Washtenaw County’s MS4 permit coverage includes enclosed portions of County Drains and County-owned properties within the regulated Urbanized Area (UA) 2000 that meet the definition of MS4s. Additional drains within the 2010 Urbanized Area were added and submitted to EGLE in accordance with the permit. Any new outfalls or points of discharge that are added, meeting the criteria described above, will be submitted to EGLE in accordance with Part I. A. 2 of the permit.

No nested jurisdictions are claimed as part of Washtenaw County’s Phase II MS4 Stormwater Permit.

Common Abbreviations

WCWRC: Washtenaw County Water Resources Commissioner’s Office, **BMP:** Best Management Practice, **CPCS:** Community Partners for Clean Streams, **EGLE:** Michigan Department of Environment, Great Lakes & Energy (formerly MDEQ), **HRWC:** Huron River Watershed Council, **MHI:** Middle Huron Initiative, **SAG:** Stormwater Advisory Group, **SEMCOG:** Southeast Michigan Council of Governments, **WCEH:** Washtenaw County Environmental Health



Contents

INTRODUCTION 1
COMPLIANCE ASSESSMENT** 3
 ENFORCEMENT RESPONSE PROCEDURE 3
 PUBLIC INVOLVEMENT/PARTICIPATION PLAN (PPP) 4
 PUBLIC EDUCATION PLAN (PEP) 5
 ILLICIT DISCHARGE ELIMINATION PLAN 27
 CONSTRUCTION STORMWATER RUNOFF CONTROL 30
 POST-CONSTRUCTION STORMWATER RUNOFF CONTROL FOR NEW DEVELOPMENTS &
 REDEVELOPMENT 31
 POLLUTION PREVENTION AND GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS 32
 TOTAL MAXIMUM DAILY LOAD LIMITS 35
DATA & RESULTS 36
UPCOMING ACTIVITIES 39
CHANGES TO BMPs & MEASURABLE GOALS 39
CHANGES IN NESTED JURISDICTION AGREEMENTS 39

** Note: These sections were incomplete in the April 1, 2020 submittal due to the COVID-19 office closures and were subsequently updated in this revised submittal.

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COMPLIANCE ASSESSMENT ENFORCEMENT RESPONSE PROCEDURE

Washtenaw County reviewed its charter, ordinances and other existing authority and provided the mechanisms identified below to support its commitments and to implement the practices and programs specified in the Storm Water Management Program (SWMP). 353 enforcement activities occurred during the reporting period per the [regulatory mechanisms](#) referenced below. No changes were made to these mechanisms during the reporting period.

The Michigan [Drain Code](#) of 1956 (Act 40 of 1956) and [Rules](#) of the Washtenaw County Water Resource Commissioner
No enforcement actions during the reporting period.

Regulation for the Inspection of Residential Onsite Water and Sewage Disposal Systems at the Time of Property Transfer
2,725 Time of Sale applications were submitted (well, septic and both) with 25 delinquency or transfer without authorization letters issued. 20 were resolved. The remaining 5 are anticipated to be resolved in mid/late 2020.

Regulation for the Onsite Management, Treatment and Disposal of Wastewater
85 failed system evaluations completed with all resolved, but not all system installations have been completed yet.

Regulation for Privately Owned Community Sewage Systems
No enforcement actions during the reporting period.

Regulation for Roadside Dumping and Litter Control
No enforcement actions during the reporting period.

Pollution Prevention Regulation
663 pollution prevention inspections performed. 150 late payment notice letters. 11 late payments sent to small claims court. 75 payments resolved.

Regulation for Cleanup of Environmental Incidents
No enforcement actions during the reporting period.

Soil Erosion and Sedimentation Control Ordinance
93 enforcement actions (Cease & Desist; Stop Work Order; Civil Infraction (19 fees)).

The regulatory mechanisms above will continue to be implemented during the next reporting cycle.

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PUBLIC INVOLVEMENT/PARTICIPATION PLAN (PPP)

The Washtenaw County stormwater management program strives to inform the public about the County's commitment to water quality improvement and encourage public involvement in review of the stormwater program. The Public Participation Plan includes the following actions to facilitate the involvement of watershed jurisdictions, agencies, organizations, and the general public as required per the MS4 permit:

Public Notice & Access to the Storm Water Management Plan (BMP 1.1. & 1.2)

The draft SWMP was made available as part of the public comment period of Washtenaw County's NPDES draft permit review process in late 2017. In addition to EGLE's public notice announcements, the public notice document was posted in the WCWRC lobby, as required, and additional notice was provided online.

Participation in Watershed Groups (BMP 1.3)

Washtenaw County participated in over 70 community meetings during the reporting period. Examples of meetings attended include the River Raisin Watershed Council, Huron River Watershed Council, Middle Huron Partners / Stormwater Advisory Group (SAG), SEMCOG One Water & Partners for Clean Water, the Alliance of Rouge Communities (Full, Executive Committee, Technical and Education Committees) and the Rouge River Advisory Council.

HRWC and SAG partners also facilitate public meetings focused on planning and implementation activities within high priority tributaries. These groups include the Malletts Creek Coordinating Committee (MC3), and the Fleming Creek Advisory Committee (FCAC). These groups met monthly to quarterly, or as needed to review development proposals from within the tributary watershed. Attendee lists and agendas for the creek groups can be requested from Ric Lawson.

Stormwater Management Program (SWMP) review (BMP 1.4)

The SWMP was completed as part of the NPDES application process and was incorporated as part of Washtenaw County's stormwater permit issued in December 2017. If revisions to the SWMP are proposed during the permit term, public notice and comment processes will be followed as described in the approved PPP. Any comments received on proposed revisions to the SWMP will be reviewed. No changes to the SWMP were made during the reporting period.

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PUBLIC EDUCATION PLAN (PEP)

The Washtenaw County Public Education Plan includes the continuation of programs that promote, publicize, and facilitate watershed education and stress citizen's role and responsibility to protect local waterways. The purpose of the PEP is to encourage the public within Washtenaw County to reduce the discharge of pollutants in stormwater to the maximum extent practicable.

A collaborative PEP was prepared by the Huron River Watershed Council for SAG permittees and was the basis for Washtenaw County's PEP included in our permit. The PEP combines with and relies upon on the implementation of public education activities by partner communities and agencies and addresses all the required public education elements and audiences as defined in the permit application. Data and/or language from the Huron River Watershed Council is included under specific activities, where applicable.

The following is a summary of progress made on implementation of Washtenaw County's PEP during the reporting period (listed by PEP Activity Number):

1. Distribute Informational Materials

Individual jurisdictions distributed brochures, tip cards, posters, and other materials developed by the Huron River Watershed Council (HRWC), Southeast Michigan Council of Governments (SEMCOG) and other agencies. The materials contain information that covers all 10 required topics. Washtenaw County distributed over 13,000 public education materials during the reporting period. Examples of these materials can be viewed here: <https://www.washtenaw.org/197/Reports-Publications>.

An informational web page and tip cards directed to the public on "what you can do with" household hazardous waste, storm drains, landscaping, pet care, lawn care and car care are available from SEMCOG – the Southeast Michigan Council of Governments. The overall campaign promotes key messages on proper use of fertilizer, car care, landscaping, stormdrain awareness, household hazardous wastes, water conservation, pet care, and riparian protection. See <https://semcog.org/protect-our-waterways>.

In 2019 the Freshwater Forum at Cranbrook, Great Lakes Water Authority (GLWA) and 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.

Common Abbreviations

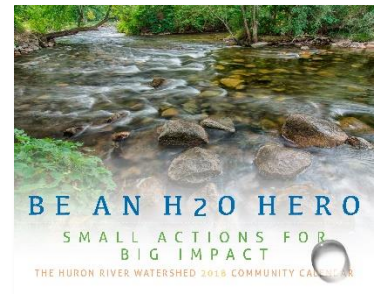
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HRWC’s public outreach content which includes tips, resources and printable fact sheets and brochures on preventing water pollution is located at <https://www.hrwc.org/take-action/at-home/> and includes the following topics: lawn and garden, household and pet waste, water efficiency and conservation, driveways and walkways, and riverfront and lake shore properties. These and additional materials are also provided to permittees participating in the Middle Huron Partnership in an online project collaboration tool (Trello).

2. Watershed Community Calendar

During the reporting period HRWC and participating communities produced, printed, and distributed 2018 Watershed Community Calendars presenting a full year of monthly informational pollution prevention tips targeted to homeowners in a single piece. A 2020 calendar is in production for distribution starting in October 2019 and annual calendars are planned for the next few years. The tips and provided resources are related to permit topic requirements such as illegal dumping, fertilizer and yard care, rain barrels, pet waste, car care, rain gardens and native plants, home toxics, stormdrain awareness and general watershed education. Participating communities distributed calendars in the fall to residents either by direct mail, at customer service counters and local venues or through other means. HRWC provided communities with the following actual quantities for the 2018 calendar and estimated quantities for the 2020 calendar:



Community	2018 Qty (actual)	2020 Qty (estimated)
City of Brighton	500	100
Ann Arbor Charter Township	N/A	844
Ann Arbor Public Schools	500	1,300
Barton Hills Village	150	150
City of Ann Arbor*	21,638	21,638
City of Belleville	N/A	119
City of Chelsea	N/A	973
City of Dexter*	1,800	2,357
City of Wixom	200	200
City of Ypsilanti	500	500
Eastern Michigan University	1,500	1,000
Green Oak Township*	767	750
Hamburg Township	200	200
Huron River Watershed Council*	3,130	2,808
Livingston County Drain Commission	700	700
Livingston County Road Commission	200	200



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Marion Township	250	250
Pittsfield Charter Township	500	681
Scio Township	N/A	2,237
Superior Charter Township	N/A	1,000
University of Michigan - EHS	300	300
Washtenaw County Road Commission	300	1,000
Washtenaw County Water Resources Commissioner*	465	600
Ypsilanti Charter Township	2,500	2,174
VA Ann Arbor Health Care System	N/A	119
Village of Pinckney	900	900
TOTAL	37,000	43,000

*Direct mailed all or part

Quantities in red, orders not yet confirmed for 2020, likely to change before report submission.

N/A, community did not order/receive/participate

HRWC distributed calendars through direct mail, at key organizational events and in person, promoting it through HRWC’s printed newsletter (direct mailed to 2,000 recipients), marketing emails (7,000+ recipients), home page blog (9,000 monthly average unique page views), and social media announcements on Facebook and Twitter.

Washtenaw County distributed 1,065 calendars during the reporting period. Approximately half of the calendars were provided to Community Partners for Clean Streams members as well as to staff in Water Resources, Environmental Health, MSU Extension and Facilities Management. The remaining calendars were distributed to the general public at events or in the WCWRC lobby.

3. Information in Community Newsletters and on Websites - Educational Content

Seasonal newsletter inserts of tips and information on nonpoint source pollution prevention topics are developed by HRWC and were made available for community use on www.hrwc.org until January 2019 when they transitioned to an online project collaboration tool (Trello) with access provided to participating Middle Huron Partners.

These materials also include a series of 12 advertisements in various sizes and formats (jpeg, pdf) that correspond to the Watershed Community Calendar branding, monthly topics and messaging.

HRWC publishes announcements, articles, tips and promotions that focus on nonpoint source pollution prevention and water quality information using the following distribution channels:

- Website- www.hrwc.org (115,000+ sessions with 331,000+ page views overall during the reporting period with 85% new visitors)

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- Facebook-Huron River (growth from 2,600+ to 3,300+ page likes during the reporting period). Instagram-Huron River (600+ followers). Twitter-@hrwc (775+ followers).
- Monthly e-mail newsletter (7,000 average monthly contacts with an average open rate of 22%).
- Printed quarterly newsletter (direct mailed to over 2,000 HRWC members and distributed to the following watershed libraries: Huron High School, Ann Arbor District, South Lyon, Milford, Chelsea, Belleville, Flat Rock, Pinckney, Ypsilanti District, Brighton Public, Dexter District).

The homeowner pollution prevention tips web pages at www.hrwc.org/take-action/at-home had the following results over the reporting period: 5,500+ total page views with 2,600+ total unique page views. The content on these pages is available for permittees to publish and distribute in their own communications channels. Page views during the reporting period included the following popular topics:

- www.hrwc.org/take-action/at-home/household-pet-waste, 12.56% of total page views.
- www.hrwc.org/take-action/at-home/lawn-garden, 31.75% of total page views.
- www.hrwc.org/take-action/at-home/riverfront-lakeshore-properties, 9.85% of total page views
- www.hrwc.org/take-action/at-home/tips-for-your-tap, 8.81% of total page views.
- www.hrwc.org/take-action/at-home/driveway-and-walkways, 6.58% of total page views going to that tips page.

Washtenaw County utilizes the following methods to distribute environmental, stormwater and water quality information to the public:

Website

Washtenaw County developed a new website which went live in April 2018, including a new website address - www.washtenaw.org. The website provides provide county residents, businesses and other interested individuals with information about county-specific programs and events. The updated webpage addresses have been included below along with page view statistics for specific county websites.

Number of page views of specific county websites with environmental information

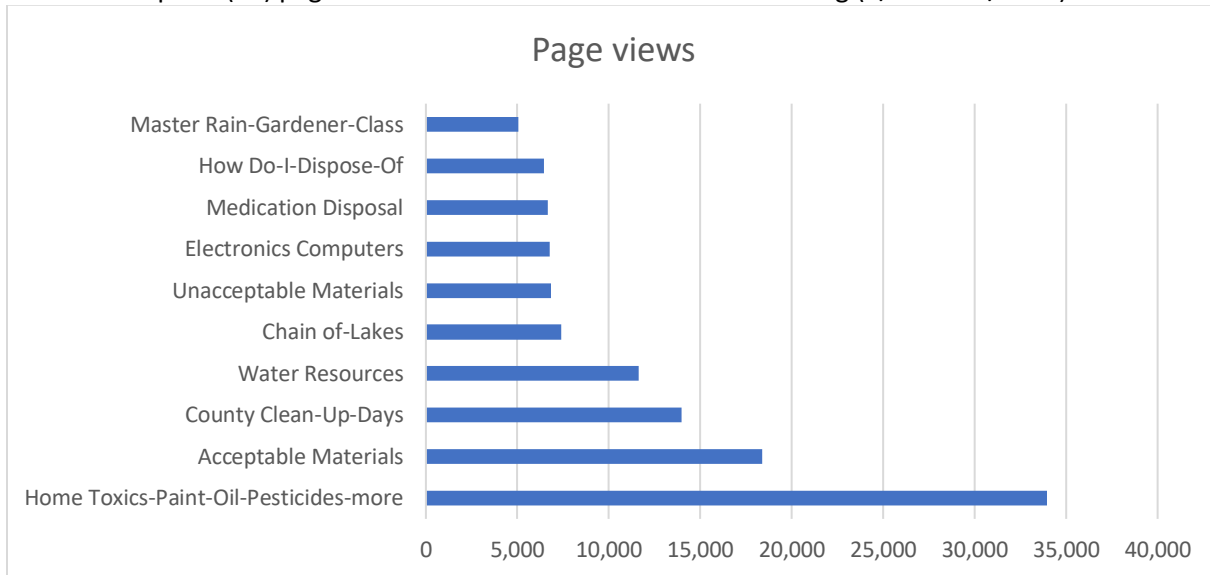
Website Address (Washtenaw.org)	05/11/18-12/31/19 Page views
Water Resources Commissioner’s (WRC) Office (https://www.washtenaw.org/154/Water-Resources)	221,464
WRC Stormwater Permit (https://www.washtenaw.org/228/)	516
Rain Gardens (https://www.washtenaw.org/647/Rain-Gardens)	16,647
Recycling, Home Toxics & Solid Waste – Public Works (https://www.washtenaw.org/349/Waste-Reduction-Recycling)	24,646
Fats, Oils and Grease Information – Env. Health (https://www.washtenaw.org/1567/Fats-Oils-Grease-FOG)	249
Environment - WRC (https://www.washtenaw.org/405/Environment)	907
Soil Erosion Control – WRC (https://www.washtenaw.org/232/Soil-Erosion-Sedimentation-Control)	8,414
Public Works (https://www.washtenaw.org/273/Public-Works)	145,396

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WCWRC’s top ten (10) page views on the new website Washtenaw.org (5/2018-12/2019) follow:



Website Address (eWashtenaw.org)	07/17-05/10/18 Page views
Water Resources Commissioner’s (WRC) Office (www.ewashtenaw.org/government/drain_commissioner)	34,394
WRC Stormwater Permit (http://www.ewashtenaw.org/government/drain_commissioner/dc_webWaterQuality/ms4permit/)	132
WRC Water Quality Programs (www.ewashtenaw.org/government/drain_commissioner/dc_webWaterQuality)	34,394
Environmental Health (www.ewashtenaw.org/government/departments/environmental_health)	143,915
Recycling, Home Toxics & Solid Waste (www.ewashtenaw.org/government/departments/environmental_health/recycling_home_toxics)	68,794
Fats, Oils and Grease Information (www.ewashtenaw.org/government/departments/environmental_health/food_safety/eh_fatsoilsgrease.html)	122
Water Protection Activities (www.ewashtenaw.org/government/departments/environmental_health/water_protection_activities)	96

Email Distribution Lists

The WCWRC’s Office disseminates information via two separate email distribution lists with the following number of participants; RiverSafe Homes 2,981 & Community Partners for Clean Streams 320. During this reporting period an electronic newsletter highlighting lawn care practices, rain barrels, rain

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gardens, household hazardous waste, salt less, and Adopt-A-Stream were distributed. Copies of the newsletter are available upon request.

Social Media (Facebook/Twitter/YouTube)

A variety of Washtenaw County departments utilize social media to distribute current information and events to interested individuals (<https://www.washtenaw.org/Facebook>). As of this report, the Public Health Department (www.facebook.com/wcpublichealth) has 4,507 Facebook followers and the WCWRC's Office (www.facebook.com/WCWRC) has 815 followers and growing.

Facebook	
	<ul style="list-style-type: none">· Washtenaw County Page· Community and Economic Development· Community Mental Health· Environmental Excellence Partnership Program (E2P2)· Independence Lake County Park· Parks and Recreation· Health Department· Master Rain Gardeners· Meri Lou Murray Recreation Center· MSU Extension· Rolling Hills County Park· Sheriff's Office· Washtenaw County GIS· Washtenaw Health Plan· Water Resources Commissioner's Office· WIC Breastfeeding Support
Twitter	
	<ul style="list-style-type: none">· Washtenaw County News· Community and Economic Development· Community Mental Health· Health Department· Sheriff's Office· Washtenaw County GIS· Washtenaw Health Plan· Water Resources Commissioner's Office

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YouTube	
	<ul style="list-style-type: none"> · Washtenaw County Government · Board of Commissioner Meetings (video, but not YouTube) · Eastern Leaders Group · Health Department · Sheriff's Office · Water Resources
Instagram	
	<ul style="list-style-type: none"> · Parks and Recreation · Washtenaw Health Plan · Washtenaw Markets
Nextdoor	
	<ul style="list-style-type: none"> · Sheriff's Office · Water Resources Commissioner's Office
Flickr	
	<ul style="list-style-type: none"> · Sheriff's Office · Washtenaw County (not affiliated with county government)
Nixle	
	<ul style="list-style-type: none"> · Sheriff's Office

WCWRC Facebook - Topic Highlight Examples:

Announcements & Awards

- Environmental Excellence Awards
- Rain Garden installations & workdays
- Radio Interviews

Displays & Events

- A2 Mayor's Green Fair
- Chelsea Spring Expo
- Huron River Day
- Ypsi Fall River Day
- County Clean-up Days (HHW)
- Home, Garden & Lifestyle Show
- Dexter Daze
- Watershed walk w/ HRWC

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- Paddle trips on the Huron w/ HRWC
- Earth Day
- Household Hazardous Waste Collections
- Drug Disposal events

PSA

- Prescription Drug Disposal
- Storm Grate Clean-up
- Mulch More
- Salt Less
- Lake Levels
- Community Surveys
- H2O Hero

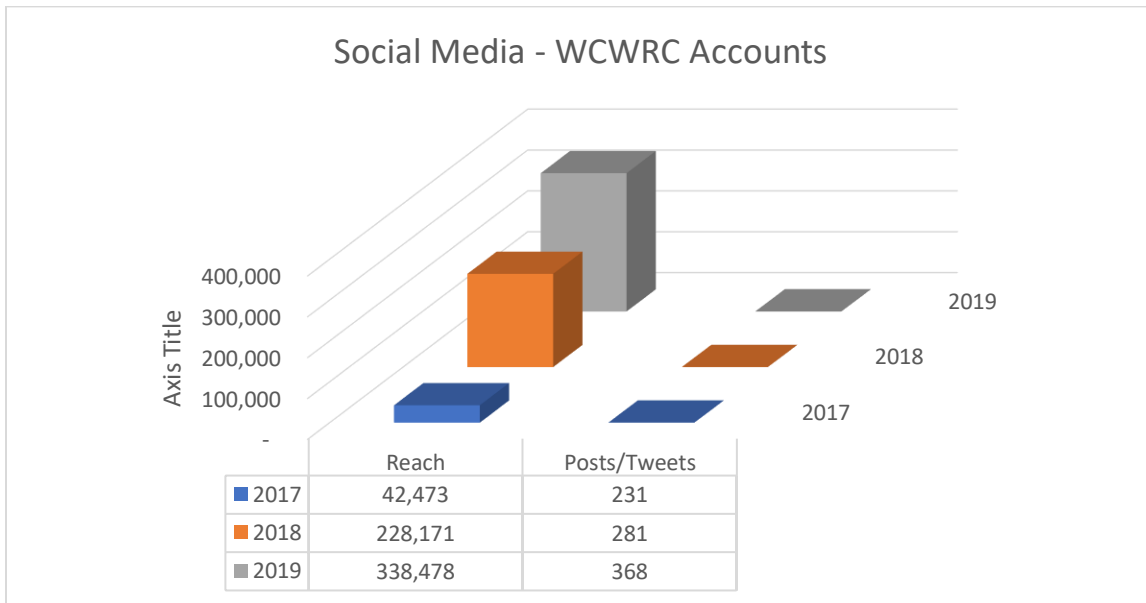
Volunteer Opportunities

- River Roundup / Bug Collections
- Winter Stonefly Search
- Monitoring on the Huron

Workshops / Training

- IDEP Training
- Master Rain Gardener Course Offerings
- Master Composter Training
- Water School

Almost 900 posts (including 123 event posts) were completed during the reporting period on the Washtenaw County Water Resources Commissioner’s Office Facebook, Twitter and Nextdoor channels, with an estimated reach to over 600,000 people.



4. Local Newspaper and Web/Other Advertisements

HRWC provides communities with a 6 month week-by-week social media campaign of digital graphics, cut-and-paste ready text, hashtags, links and stormwater pollution prevention posts for Facebook,

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Twitter and Instagram as follows: May-Pet Waste, June-Lawn Care, July-Native Plants, August-Septic System, September-Home Toxics, October-Storm drains.

Ads resemble and reinforce the Watershed Community Calendar messaging, using the hashtag #h2ohero and promoting the dedicated campaign web site, www.hrwc.org/h2oheroes which is directed to HRWC's homeowner focused pollution prevention content and contains detailed information and additional resources. 12 months of h2o hero themed print ad materials are also available for community use.

Additionally, in 2018 HRWC produced "Testing the Waters of the Huron River," a micro-documentary featuring HRWC's volunteer Chemistry and Flow Monitoring Program. This short video highlights the Huron River Watershed Council (HRWC)'s extensive volunteer program to test and monitor the water chemistry and flow of the Huron River system and the waterways of the Downriver area. The data, which is collected throughout the year from dozens of sites, informs effective programs and policies to improve, protect and restore clean water. What makes the program successful is the significant efforts of volunteers, the important partnerships with government and educational organizations, and the team's innovative use of technology. <https://youtu.be/gdkKe-dKQag>. The video was distributed through a paid social media advertising campaign on Facebook that resulted in reaching 3,982 people resulting in 106 reactions, comments and shares. It has been viewed over 600 times during the reporting period.

Newspaper & Web Advertisements

Washtenaw County published 14 advertisements during the reporting period in the Ann Arbor Observer and the Community Observer. The ads included the Community Partners for Clean Streams program, advertisements congratulating the Environmental Excellence Award winners and two Master Rain Gardener Program/Class announcements.

In addition, 4 Facebook ads were placed during the reporting period with 5,465 impressions on the topics of Zero Waste, proper disposal of fats, oils and grease (Thanksgiving) and the Master Rain Gardener course announcements.

5. Promote Water Resource Protection Workshops

Across the entire reporting period, HRWC also organized and promoted the following community events/workshops incorporating water quality and nonpoint source pollution prevention informational materials:

- Chemistry and Flow Monitoring volunteer trainings, March and June 2018, 2019
- Changemaker Boot Camps volunteer trainings, January and February 2018, 2019
- Educator Trainings, March 2018, 2019
- Volunteer Data Sharing, January 2018, March 2019
- Sectional River Clean-ups, Summer 2018, 2019
- River Round-Up, April and October, 2018, 2019
- Stonefly Search, January, 2018, 2019

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- Malletts Creek and Fleming Creek Subwatershed Advisory Group meetings, monthly to quarterly, 2018, 2019
- HRWC Annual Meeting, April 2018, March 2019
- Suds on the River, September 2017, 2018
- Pittsfield Township Home Owners' Workshop, September 2017
- Green Infrastructure Workshop, Putnam Twp., September 2017
- Green Infrastructure Workshop, Chelsea, Lima and Sylvan Township, May 2018
- Single Fly-Fishing Tournament, July 2018
- Swift Run Rain Garden Planting Day, June 2018 and Stakeholder Meeting, August 2018
- Community Meetings on PFAS and the Huron River, September 2018, October 2018, December 2018, January 2019, July 2019, August 2019
- River Givers Community Celebration, March 2019
- Protecting Your Inland Lake: A Guide to Lake Stewardship Workshop, April 2019
- MSU Water School, May 2019
- How to Protect Land Workshop, June 2019
- Whole Farms for Clean Water Lunch & Learn, August 2019

Washtenaw County promoted over 120 events on our Facebook and Nextdoor pages and/or events calendars, including workshops on various water resources protection topics.

Master Rain Gardeners are trained to design and build rain gardens, and to serve as neighborhood educators. Each year, the County hosts two certification classes, one online, and one in-person. www.MasterRainGardener.org

The Washtenaw County Master Rain Gardener certification classes were offered:

- Online Webinars (5-class series); July 2018, July 2019
- In-person Classes (5-class series); January 2018, January 2019

In addition, Catie Wytychak presented at the following conferences during the reporting period on rain garden programs and maintenance:

- 2018: Michigan Water Environment Association conference on Green Stormwater Infrastructure Maintenance
- 2019: Michigan Association of County Drain Commissioners conference in Bellaire, MI; Oakland County, MI – Stormwater Summit; Minneapolis, MN - Operations in Stormwater Control; Seattle, WA - American Public Works Association conference

6. Volunteer Stream Monitoring

Each year, HRWC hosted several activities or monitoring events that inspire the protection of local fresh-water resources. One event measures the physical conditions (described below) and the other event (“biomonitoring”) measures the aquatic invertebrate community.

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In biomonitoring events, held in January (Stonefly Search), April (River Roundup) and September (River Roundup), volunteers spend the day as part of a small research team, examining the conditions of two streams. Streams are selected to be strikingly different in quality. Each team collects samples of creatures (macroinvertebrates). They notice immediately that one stream is teeming with life while the other appears nearly “dead”. This comparative difference is an effective way for residents to discover for themselves that some local streams have deteriorated while others remain healthy which leads to inquiry about the causes of stream deterioration, the conditions of their local stream, and possible solutions. HRWC attempts to visit 40 locations per event (3x per year), which our volunteers have been able to keep up with. In 2016 and 2017 we collected 221 samples at 68 unique locations; In 2018 and 2019 (though April only), we have collected 169 samples at 64 unique locations.

A follow-up report and annual presentation by HRWC responds to volunteer concerns by providing results of the monitoring events and an explanation of the primary causes of local stream deterioration, tools to address local stream issues and “tip cards” or information for homeowners and other residents on protecting water quality.

Annually, in the summer, interns measure the physical conditions of streams. They learn to “read a river” by studying the conditions that affect the ecological health of the sites. Interns are local college students that are aiming to become professionals in environmental and/or field work. These outings give them the basics to start those careers. In the summer of 2019 summer interns collected geomorphological data, which will support the redevelopment of the Middle Huron Master Plan, and they helped collect and process water samples for microplastics, a newly emerging contaminant in our watershed.

HRWC’s program serves the entire watershed, a 900-square mile area that drains into the Huron River and then into Lake Erie. The area includes approximately 525,000 residents and parts of seven counties in southeastern Michigan, primarily Livingston, Oakland, Washtenaw, and Wayne Counties. The pool of volunteers, who live in many of the in 67 watershed communities, is currently around 600, with up to 150 routinely participating in each event. HRWC has successfully drawn volunteers from throughout the watershed. Over 2014 and 2015 we have focused recruitment in the Trail Towns (Huron River Water Trail) (Milford, Dexter, Ann Arbor, Ypsilanti, and Flat Rock). While recruitment from these municipalities is slowly growing, the increased outreach, along with other Trail Town activities, have garnered numerous additional new partnerships and overall public awareness.

Additionally, HRWC operates a Chemistry and Flow Monitoring Program on behalf of partners in Washtenaw and Livingston Counties. This program, which utilizes volunteer sample collectors, is described in more detail in the document named Section 8 – WQ Report.docx.

Volunteer stream monitoring events are promoted periodically via the WCWRC’s Facebook page, www.facebook.com/WCWRC and/or through email distribution lists. WCWRC included 24 Facebook posts/events promoting stream monitoring opportunities in the Huron, Rouge and/or Raisin Rivers during the reporting period.

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Washtenaw County provides funding to support volunteer stream monitoring to the Huron River Watershed Council via the Middle Huron Partnership. During the reporting period, funding was also provided directly to The Friends of the Rouge (FOTR) to support volunteer and stream monitoring sites that are in and/or receive runoff from Washtenaw County. FOTR event data is highlighted in the [2017](#) and [2018](#) Annual Report for the Alliance of Rouge Communities. www.allianceofrougecommunities.com

7. Catch basin/Storm Drain Labeling

Adopt-A-Stormdrain Program. Stormdrain awareness is a priority for public education efforts of stormwater phase I and II regulated communities. Historically, many communities have labeled and marked storm drains with language that explains that they go directly to the local surface waters. This effort was usually combined with the distribution of door hangers that provided more detailed information about stormwater, non-point source pollution and the proper disposal of motor oil, grass clippings, pet waste, and other pollutants. With many of the urban storm drain now labeled/marked, the effort has shifted to maintenance by local street or public works staff.

In 2010 the Middle Huron Stormwater Advisory Group members began development of an Adopt-A-Stormdrain program for key areas of Washtenaw County. The program is designed to recruit public and private partners to take sustained action to keep storm drains labeled, clear and clean by working with a committed group of individuals. These volunteers also report problems to the local governments and serve as the neighborhood advocates and educators.

HRWC developed the program format and structure, creating waivers, intake and reporting forms, instructions and tips, etc. See <https://www.hrwc.org/volunteer/adoptastormdrain/>. Volunteers participated in the program by clearing debris from and applying new “Dump No Waste, Drains to River” markers to storm drains and distributing informational door hangers to nearby neighborhood residences.

In 2018, we focused this program in Ypsilanti and Dexter, successfully deploying door hangers and stormdrain labels to nearly 100% of both communities through the use of summer intern assistance. We were also able to cover some areas of Ann Arbor that have had very low resident adoption, most notably the Huron Hills neighborhood.

In 2019 we were able to partner with the Ann Arbor Public Schools to get storm drains labeled on all of the school properties.

Washtenaw County distributed 225 “Dump No Waste – Drains to the River” catch basin markers as part of the Community Partners for Clean Streams Program for businesses which provides members with catch basin markers at no cost. The Saline Environmental Commission, Mary’s Fabulous Chicken, the VA Hospital, and Ypsilanti Community Schools – Bishop Elementary received catch basin markers and/or reusable stencils during the reporting period.

8. Riparian Land Management Information

In 2014 HRWC produced a 12-page booklet, “Waterfront Wisdom, 7 tips for creating and maintaining a beautiful and healthy waterfront,” an updated adaptation of a booklet designed by Environmental

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Consulting & Technology and published by the Oakland County Water Resources Commissioner. A series of tips web pages have also been posted with information and resources for shoreline property owners on shoreline buffers, aquatic invasive species, preventing soil erosion, and benefits of keeping boats clean. See <http://www.hrwc.org/take-action/waterfront-wise/>.

These materials were developed and printed for the outreach requirements of the Portage Creek Implementation Project funded in part through the Michigan Nonpoint Source Program by the US Environmental Protection Agency under the Clean Water Act, assistance agreement C995474-12.

HRWC and participating communities printed an additional 2,400 booklets (not funded by the Michigan Nonpoint Source Program) for distribution to riparian landowners outside of the Portage Creek project area.

In December 2015 the Livingston Watershed Advisory Group also printed and direct mailed 2,390 booklets along with a short evaluative survey to owners of residential parcels on lakes in the Huron River Watershed greater than 10 acres.

During the reporting period 250 print booklets were distributed in person directly to watershed residents through outreach at several local and regional fairs and community events (see Activity #12) such as the Home, Garden & Lifestyle Show, Dexter Days, South Lyon Nature Fest and at regional water protection workshops (see Activity #5) such as Change Makers, January and February 2018, 2019; Protecting Your Inland Lake: A Guide to Lake Stewardship Workshop, April 2019; and MSU Water School, May 2019.

Washtenaw County offers riparian land management brochures, the Homeowner's Handbook (Guide 7 – Landscaping Near the Water's Edge) and the Waterfront Wisdom booklets from the [ARC](#) and [HRWC](#) at the Water Resources Commissioner's Office, at various public outreach events and upon request to citizens, homeowner's associations or businesses. Over 350 Waterfront Wisdom booklets and 387 Shoreland Stewards brochures were distributed during the reporting period.

9. Displays and Outreach at Local and Regional Fairs and Community Events

HRWC coordinated and staffed watershed information displays and table activities at the following community events during the reporting period:

- Fly Fishing Film Tour (February 2018, 2019)
- Home, Garden & Lifestyle Show, Washtenaw County (March 2018, 2019)
- River Givers Celebration (March 2018)
- Earth Days: Ann Arbor, Washtenaw Community College and Brighton (April 2018, 2019)
- Ann Arbor Mayor's Green Fair (June 2018, 2019)
- Huron River Day (May 2018, 2019)
- Dexter Daze (August 2018, 2019)
- University of Michigan EarthFest (September 2017, 2018)
- Ypsilanti Fall River Day (September 2017, 2018)

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- Suds on the River (September 2017, 2018)
- Ann Arbor Water Treatment Plant Open House (May 2018, 2019)
- Ann Arbor Wastewater Treatment Plant Open House (October 2018)
- African American Festival (July 2019)
- Washtenaw Conservation District Native Plant Sale (June 2019)

At the 2018 and 2019 Ann Arbor Earth Day Festivals in April, HRWC hosted a stream monitoring demonstration and watershed education booth for children and families. Volunteers collected benthic macroinvertebrates and guided festival attendees through table-top observation and identification. In 2018, 300+ children and parents participated during the 4-hour festival with help from six students with Skyline High School's Environmental Club who were trained offsite by a volunteer leader from HRWC's streamside education program. In 2018 HRWC distributed 250 donated red maple and sugar maple seedlings for planting. HRWC also distributed watershed education, tree planting and benefits, volunteer stewardship and stormwater pollution prevention materials.

In 2018 and 2019 in March HRWC partnered with the Washtenaw County Water Resources Commissioner's Office, to host a booth at the Washtenaw Home, Garden & Lifestyle Show. Both years, the booth featured native plants and rain garden displays and information, Waterfront Wisdom and riparian information were highlighted. Experts in sustainable landscaping and rain gardens (Susan Bryan and Catie Wytychak, WCWRC, 2018, 2019) were on hand to promote and advise homeowners on best practices. Susan gave a homeowner presentation on tackling stormwater runoff using rain gardens (2018, 2019). Leading up to Home, Garden & Lifestyle in 2019, WCWRC and HRWC appeared as guests to present "Rain Gardens 101" on the Lucy Ann Lance "Around the Home" show, 1290 WLBY in February.

In 2018 and 2019 at Ann Arbor's Huron River Day in July HRWC hosted a stream-monitoring demonstration and watershed education booth for children and families. Participants from HRWC's volunteer stream monitoring program were on hand to show and tell macro-invertebrate indicator species, demonstrate monitoring equipment and recruit volunteers for HRWC's volunteer programs. Participating communities from the Middle Huron also sponsored a stream simulation table educational exhibit from the University of Michigan's Museum of Natural History. The activity provided children hands-on opportunities to explore how water flows, erosion, effects of flooding, the consequences of human activities on water quality, and much more.

WCWRC staff participated in over 260 public education presentations and special event days throughout the reporting period. Events included:

- Home, Garden & Lifestyle Show Washtenaw County: March 2018 & 2019
- Chelsea Expo: March 2018 & 2019
- Rural Education Days: April 2018 & 2019
- Washtenaw County Environmental Excellence Awards: March 2018 & 2019
- City of Ann Arbor Mayor's Green Fair: June 2018 & 2019
- Huron River Day: July 2017, 2018 & May 2019

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- Dexter Daze: August 2017, 2018 & 2019
- University of Michigan Earth Fest: September 2018
- Ypsilanti Fall River Day: September 2018 & 2019

Water quality materials are distributed at these events, at presentations by the WCWRC and are also available for use by local government Community Partners for Clean Streams members upon request. Washtenaw County distributed over 13,000 public education materials during the reporting period. (<https://www.washtenaw.org/197/Reports-Publications>)

10. Promote County-wide Compliant Tracking and Response System

The Washtenaw County Environmental Reporting Line (734-222-3800) is in operation during business hours (Monday-Friday, 8:30 to 5:00) and staffed by the Washtenaw County Environmental Health Division. Emergencies are directed to 9-1-1. In addition, online reporting of non-emergency issues is available 24/7 at <https://washtenaw.org/196/Report-an-Issue>. Hard copy Information promoting the Environmental Reporting Line is available from the Water Resources Commissioner's Office in various brochures and is available, upon request, for use at municipal offices, events, etc.

11. N/A to Washtenaw County; Livingston County Household Hazardous Waste Program

12. N/A to Washtenaw County; Livingston County Prescription Drugs Disposal Program

13. N/A to Washtenaw County; Livingston County Electronic Waste Reduction Program

14. Stream and River Crossing Road Signs

Through a partnership with the Washtenaw County Water Resources Commissioner's Office, Washtenaw County Road Commission and local governments, 59 stream crossing signs were previously designed, produced and installed in highly traveled Phase II County road rights-of-way areas to promote watershed awareness to residents and visitors. During the reporting period the Washtenaw County Road Commission installed 6 "Protect Our Streams & Rivers" signs and 38 stream/drain name signs.

15. Washtenaw County Community Partners for Clean Streams

During the reporting period Washtenaw County continued the Environmental Excellence Partnership Program (E2P2) to assist businesses and non-profit organizations in recognizing, developing and implementing environmentally sound behavior in the areas of water quality protection, waste reduction & recycling and pollution prevention. Opportunities for participation in E2P2 include:

1. Community Partners for Clean Streams – 12 new members during the reporting period
2. Pollution Prevention
3. Waste Knot

The Community Partners for Clean Streams (CPCS) program is a voluntary, cooperative effort between the Washtenaw County Water Resources Commissioner's Office and Washtenaw County businesses, institutional landowners and multi-family residential complexes. The goal of the program is to help identify practical, cost-effective ways to protect Washtenaw County waterways through pollution prevention. CPCS is a cost-free initiative that provides information, technical advice and recognition to

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participants. There are currently over 130 partners in the program. For additional information visit: www.washtenaw.org/e2p2.

In 2018 CPCS started a mini-sponsorship program to provide monetary support to our CPCS members for small projects that work to improve water quality, prevent pollution and expand waste reduction and recycling efforts. Ten projects were sponsored in 2018 and 2019, five each year and included rain gardens, recyclable materials, etc. The sponsorship program is anticipated to continue in 2020.

16. Washtenaw County Pollution Prevention Inspections

Washtenaw County Pollution Prevention (P2) Inspections review chemical storage/handling practices, look for illicit connections, ensure compliance with relevant federal, state and local laws and provide a report and technical assistance where remediation is necessary. During the reporting period, over 660 inspections were conducted by the Washtenaw County Environmental Health Division. See <https://www.washtenaw.org/1573/Pollution-Prevention>.

17. Washtenaw County Issues of the Environment Radio Show

In collaboration with local partners (City of Ann Arbor, Eastern Michigan University), Washtenaw County uses the website www.washtenaw.org to bring environmental education to the public in a variety of forms. Information is distributed via newspaper articles, award-winning informational videos, television shows, and weekly radio programs. The *Green Media* website was developed to serve as a single resource for the County's educational outreach efforts. <https://www.washtenaw.org/375/Green-Media>.

"Issues of the Environment" Radio Show (WEMU – 89.1 FM)

The *Issues in the Environment* is a weekly radio program hosted by David Fair on WEMU, sponsored by the Washtenaw County Public Works Division and the Water Resources Commissioner's Office. Over 110 shows aired during the reporting period. Examples of the water quality related topics include: *Water Is Not Only Source Of PFAS, Expanding Lake Protections In The Huron River Watershed, Climate Change To Cause More Flooding In The Great Lakes Region, Mitigating Phosphorus Levels In Area Lakes And In The Huron River, Past And Future Impacts Of The Great Lakes Restoration Initiative, The Huron River, PFAS Contamination, And You, Ann Arbor Moves Forward In Addressing PFAS Chemicals In Drinking Water, Michigan Shoreline Stewards Program Protects Inland Lakes*, and many others. A complete listing of program topics can be found online at [https://www.washtenaw.org/340/Issues-of-the-Environment---Radio including past interviews](https://www.washtenaw.org/340/Issues-of-the-Environment---Radio-including-past-interviews).

The Green Room (CTN & WEMU – 89.1 FM)

The Green Room is a collaboration between the City of Ann Arbor's [Community Television Network \(CTN\)](#), the Washtenaw County Public Works Division and the Water Resources Commissioner's Office. Thirty-nine (39) radio and television shows aired during the reporting period. Each new TV episode on CTN airs throughout the month, typically 4-6 times per week. The show is also available for streaming online from the CTN webpages and/or YouTube. The show is produced by Barbara Lucas and Tim Nagae. Highlights of topics covered included: *Climate change, PFAS, Water Quality Plan for SE Michigan, Benefits of Trees, Proper Septic System maintenance and Smart Water*.

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Through her work with the County, Barbara also co-produces a monthly *Green Room* [radio show with WEMU 89.1FM's David Fair](#). A variety of topics were covered during the reporting period, including: *Pipelines* (5-part Series), *Urban Living Density*, *Climate Change*, and *PFAS*. The Green Room on WEMU – 89.1 FM received the 2019 Michigan Association of Broadcasters 1st Place award in the Public Radio Mini-Series category for its [PFAS series](#). The Green Room’s final show aired on WEMU in 2019.

A complete listing of episodes and the topics covered can be found online. See:

The Green Room TV: <https://www.washtenaw.org/365/TV-Show---The-Green-Room>.

The Green Room Radio: <https://www.washtenaw.org/363/Radio-Show>.

Additionally, a variety of environmental video projects produced by the Washtenaw County Environmental Health Division are available online. Videos such as *Water Quality: It’s in our Hands*, *Septic Systems and Water Quality*, and *Safe Disposal of Medications* are posted on the Washtenaw County website and can be viewed anytime:

<https://www.washtenaw.org/2373/Video-Resources>.



18. Washtenaw County Environmental Excellence Awards

The Environmental Excellence Awards were held in March 2018 & March 2019. Winners were selected to receive an award in the following categories: Water Quality Protection, Waste Reduction & Recycling, and Pollution Prevention. The Overall Environmental Excellence winner excels and participates in the Washtenaw County Community Partners for Clean Streams, WasteKnot and Pollution Prevention (if applicable) programs. Award winners in all three categories plus the overall winner, are provided in Table 1 below. Advertisement(s), press releases and website postings are used to recognize awards winners. See <https://www.washtenaw.org/415/Awards>.

Table 1: Environmental Excellence Winners for 2018-2019

	Overall Winner	Water Quality Protection	Waste Reduction & Recycling	Pollution Prevention
2018	Laura Rubin – HRWC (Leadership Excellence)	USGS Great Lakes Science Center	Food Gatherers	Pollard Banknote Limited
2019	Ann Arbor YMCA	Thurston Nature Center	Western Washtenaw Recycling Authority	O & W, Inc.

19. Washtenaw County Fats, Oil and Grease & Litter Reduction

Washtenaw County’s Community Partners for Clean Streams program highlights proper disposal of fats, oils and grease (FOG) in the Series 9 document. Food service educational materials are available to educate restaurants about FOG disposal and clean-up procedures. These packages include CPCS Series 9, a FOG brochure, and a FOG hauler listing. Customers are primarily directed to the electronic information

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rather than providing physical documents. Additionally, there have been over 390 pageviews to the FOG Information on the County website during the reporting period:

<https://www.washtenaw.org/838/Fats-Oils-Grease> & <https://washtenaw.org/1567/Fats-Oils-Grease-FOG>.

20. Washtenaw County River Safe Homes Program

The River Safe Homes Program began in 2007 and continues to offer Washtenaw County residents

(<https://www.washtenaw.org/riversafe>), user-friendly water quality protection information online that is geared to homeowners. Participants take an online survey to assess how the pollution prevention activities they already do and pledge to do can protect and improve water quality around their homes. The topics covered in the survey include:



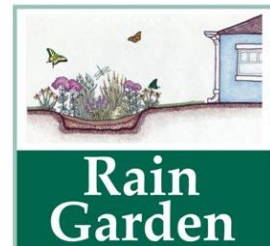
- Lawn Care
- Car Care
- Proper Pet Waste Disposal
- Household Hazardous Waste Disposal

Upon satisfactory completion of the survey, participants receive a “RiverSafe Home” logo (window cling) that may be displayed at their home. The purpose of the logo is to inform visitors about the water quality protection activities and commitment made by the homeowners who live there. A hard copy RiverSafe Home booklet and survey are also available for residents who do not have internet access.

During the reporting period, 346 RiverSafe Home surveys were completed. The City of Ann Arbor continues to partner with the WCWRC’s Office to promote RiverSafe Homes within the City by offering a Residential Stormwater Credit program. See <http://bit.ly/rshresidentcredit> for details.

21. Washtenaw County & City of Ann Arbor Residential Rain Garden Program

Since 2005 rain gardens have been designed and installed at residential, church, and institutional properties through the Residential Rain Garden Program. The project was initiated as a Clean Water Act 319 grant but has since been funded by both the County and the City of Ann Arbor and periodically by a grant from the Michigan Department of Environment, Great Lakes & Energy (formerly MDEQ).



Washtenaw County is also partnering with the City of Ann Arbor to maintain public rain gardens. Workdays are hosted and volunteers are recruited to maintain public rain gardens. See volunteer hours below.

	2017	2018	2019	Total
Rain Gardens Installed	78	59	82	219
Master Rain Gardeners Trained	159	99	160	418
Volunteer Hours in Public Rain Gardens	1,142	1,320	925	3,387

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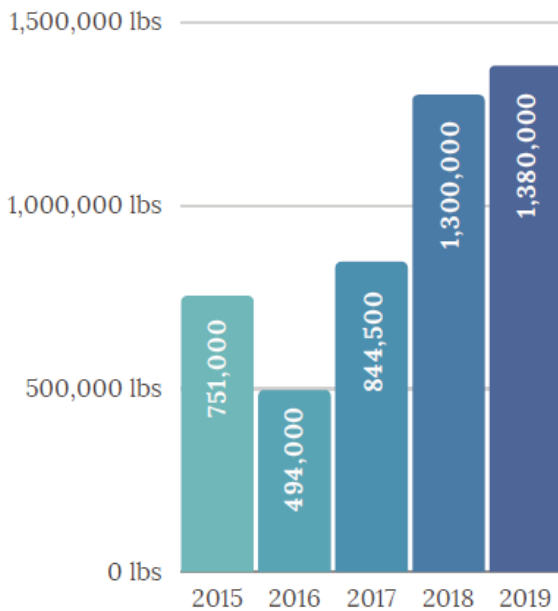


22. Washtenaw County Home Toxics Reduction Program

County Household Hazardous Waste Collection Events

The Washtenaw County Home Toxics Reduction Program has a permanent facility at 705 N. Zeeb Road that accepts household hazardous waste from the citizens of Washtenaw County. Examples of the

**Total Amount of Material Processed
 From All Diversion Programs**



household hazardous waste (HHW) materials that are accepted include: paints, aerosols, cleaners, motor oil, cooking oils (vegetable, canola, olive, etc.), pesticides, herbicides, fertilizers, paint thinner, solvents, varnishes, wood preservatives, mercury, fluorescent light bulbs, and home repair products. A complete listing of the acceptable and non-acceptable items can be found on our website at <https://washtenaw.org/287/Home-Toxics-Paint-Oil-Pesticides-more>.

Collection facility hours of operation take place the first 3 Saturdays of the month from 9:00 am until noon beginning in April and ending in November. Collection during the winter months (December-March) is available by appointment. Appointments are also scheduled year-round for those citizens unable to use the facility during regularly scheduled collection days. The Home Toxics Reduction Program household hazardous waste statistics for the reporting period were:

Table 2: Household Hazardous Waste (HHW) Collection Event Data

	2017	2018	2019	Totals
Number of Participants	4,220	4,762	5,135	14,117 participants
Household Hazardous Waste (pounds)	203,409	504,942	365,585	1,073,936 pounds HHW

In addition to the Saturday collection events, Clean-up Days to collect Household Hazardous Waste (HHW) were held in cooperation with the Washtenaw County Solid Waste Division, and local municipalities and universities. Eight (8) collection days were held in 2017-2019 at the following locations: EMU/Ypsilanti (2), Chelsea (2), Northfield Township (2), and Saline (2).

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Table 3: Clean-Up Day Collection Event Data

	2017	2018	2019	Totals
Number of Vehicles Served	2,290	2,666	2,400	7,356 vehicles
Pounds of Waste Collected	406,575	630,081	506,381	1,543,037 pounds

Additional information on HHW collected is available in the Washtenaw County Solid Waste Program Annual Reports available on our website <https://www.washtenaw.org/197/Reports-Publications>.

Waste Knot Program

Washtenaw County’s Waste Knot Program works to develop relationships with businesses to increase waste reduction and recycling activities. The program provides community-wide recognition and organization-based technical assistance along with value-added education to organizations that exhibit leadership in waste reduction and recycling or to organizations that desire to become leaders in waste reduction and recycling. Currently there are over 300 businesses participating in the E2P2 programs, including Waste Knot. For more information, please visit the Waste Knot Program website at <https://www.washtenaw.org/e2p2>.



23. Washtenaw County Drug Take Back Program

The Medicine Take-Back Program currently consists of twelve (12) participating pharmacies and eight (8) Big Red Barrel locations at Police & Sheriff locations that serve as collection points for the general public to take unused, expired or unwanted medicines for safe disposal.

Medicine Take-Back (medication + sharps)	Pounds
2017	3,973
2018	4,063
2019	1,390
Total pounds	9,426

The County’s website www.dontflushdrugs.com includes disposal locations and information on:

- Pharmaceutical Take-Back Program
- Mail-In Programs
- Big Red Barrel Program
- Locations Around Michigan
- Medication and Personal Care Product Disposal Guidelines (including our 4-min. video on proper disposal)

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Other Activities:

Promote Soil Testing

Beginning January 1, 2012, phosphorus fertilizer applications are restricted on residential and commercial lawns in Michigan, including athletic fields and golf courses statewide. This includes applications by both homeowners and commercial applicators.

The general rule in the Michigan Fertilizer Law is no phosphorus fertilizer may be applied on residential or commercial lawns, unless it meets an exemption. The sale of phosphorus fertilizers in the marketplace is not impacted. Phosphorus applications for agriculture, gardens, trees, and shrubs are exempted. In September 2011 HRWC participated in a phosphorus fertilizer workgroup coordinated by the Michigan Department of Agriculture & Rural Development. MDARD produced a homeowner brochure and additional phosphorus information (available at www.michigan.gov/mda-fertilizer and MSU-BePhosphorusSmart).

In 2012, the soil testing program transitioned to a web-based mail in program run by MSU Extension where consumers were directed to purchase (\$25) a soil test kit, mail-in their samples and get results by email which they then plug into a website tool for interpretation.

HRWC promotes the “go phosphorus free” messaging to the public as part of healthy lawn and garden practices in the Watershed Community Calendar (Activity #2), Information in Community Newsletters and on Websites (Activity #3), and Local Newspaper and Web Advertisements (Activity #4).

During the reporting period a total of 1,747 pageviews were recorded on HRWC’s lawn and garden landing page www.hrwc.org/take-action/at-home/lawn-garden, where fertilizer information and soil testing is promoted as a topic www.hrwc.org/take-action/at-home/lawn-garden/#fertilize-phosphorus-free

In addition, Washtenaw County promotes soil testing through programs and publications like: Community Partners for Clean Streams, RiverSafe Homes, Homeowners Handbook and the Rain Garden Program.

PEP Evaluation of Effectiveness

Washtenaw County’s evaluation of the overall effectiveness of the PEP includes a combination of both the accumulated measures of the PEP’s individual activities as reported above, and a measure of the effectiveness of the sum of all the activities through a coordinated survey conducted by the collaborating partners which will be administered once during the permit term (est. 2022).

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Washtenaw County’s PEP activities detailed in this section cover all ten public education topics required by our permit. A table noting the PEP topics covered by each activity follows:

Public Education Topics

1. Promote public responsibility and stewardship in the applicant(s) watershed.
2. 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.
3. Educate the public on illicit discharges and promote public reporting of illicit discharges and improper disposal of materials into the MS4.
4. Promote preferred cleaning materials and procedures for car, pavement, and power washing.
5. Inform and educate the public on proper application and disposal of pesticides, herbicides, and fertilizers.
6. Promote proper disposal practices for grass clippings, leaf litter, and animal wastes that may enter into the MS4.
7. Identify and promote the availability, location, and requirements of facilities for collection or disposal of household hazardous wastes, travel trailer sanitary wastes, chemicals, yard wastes, and motor vehicle fluids.
8. Inform and educate the public on proper septic system care and maintenance, and how to recognize system failure.
9. Educate the public on and promote the benefits of green infrastructure and Low Impact Development.
10. Promote methods for managing riparian lands to protect water quality.

Public Education Topic	PEP Activity #	PEP Activity Description
1-10	1	Public Information Materials
1-9	2	Watershed Community Calendar
1-10	3	Community Newsletters & Websites
1-9	4	Local Newspaper and Web or Other Advertising
10 primary, 1-9 secondary	5	Water Resource Protection Workshops
1 primary, 2-9 secondary	6	Promote/Support Volunteer Stream Monitoring
1,2,3	7	Promote/Support Stormdrain Labeling
(Not Required)	8	Riparian Land Management Information
1-9	9	Local/Regional Community Events
2, 3	10	County Wide Complaint Tracking and Response Systems
1	14	Stream and River Crossing Road Signs
1-9	15	Washtenaw - Community Partners for Clean Streams
10	16	Washtenaw County Pollution Prevention Inspections
1-10	17	Washtenaw County Issues of Environment Radio Show
1-10	18	Washtenaw County Environmental Excellence Awards
10	19	Washtenaw County Fats, Oils, Grease Reduction
1-10	20	Washtenaw County RiverSafe Homes Program
1,2,9	21	Washtenaw Co/Ann Arbor Residential Rain Garden Prg.
7	22	Washtenaw County Home Toxics Reduction
1, 7	23	Washtenaw County Drug Take-Back Program

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ILLICIT DISCHARGE ELIMINATION PLAN

Washtenaw County's IDEP was developed to prohibit and effectively eliminate illicit discharges and illicit connections (including the discharge of sanitary wastewater) to regulated Washtenaw County storm systems. Actions taken during the reporting period follow.

Storm Sewer System Map

An updated version of our storm sewer system map is online at <https://www.washtenaw.org/1197/MapWashtenaw>. Through our Geographical Information Systems (GIS) & Information Technology Department, Washtenaw County provides MapWashtenaw, which is an interactive, online mapping tool that allows access to the latest parcel maps and property data. A variety of county-wide information is available including parcels, aerial photos, topography, schools and natural features.

Illicit Discharge Identification and Investigation

Dry Weather Screening Program & Data Collection

IDEP field observations will be performed at regulated outfalls throughout the regulated MS4 area over a 5-year term. The goal is to screen approximately 20% of the regulated outfalls per year. Dry weather screening was completed on 96 of the 220 drain system outfalls/points of discharge during the reporting period.

Illegal Dumping/Spills

Washtenaw County Environmental Health received 86 calls reporting potential issues involving sewage, pollution, wells and pools. No discharges to the stormwater system were identified.

Time of Sale & Field Inspections

Washtenaw County's field inspections and Time of Sale (TOS) septic inspection and correction programs work to minimize and/or eliminate infiltration of sanitary sewer and septic systems into County drains. WCWRC Field Inspection Division notes identification and location of any sanitary sewer infiltration into County drains during drain inspections. WCEH's TOS program inspections are performed on well and septic systems county-wide by the Washtenaw County Environmental Health Division per the Regulation for Onsite Well and Sewage Disposal System Inspection at the Time of Property Transfer. In order to comply with the time of sale requirements, homes which are found to be in an unacceptable condition must take corrective action before WCEH will issue a time of sale authorization letter.

Washtenaw County Environmental Health Division performed 2,725 Time of Sale (Point of Property Transfer) inspections on well and septic systems county-wide. Septic system inspections were included in 2,304 of those inspections with 301 septic systems found to be in an unacceptable condition, requiring correction prior to approval. Of the 2,725 applications received during the reporting period 2,658 received approval.

Pollution Prevention (P2) Program

Washtenaw County's Pollution Prevention Program inspects facilities that store, manufacture,

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or use hazardous, toxic or polluting materials (5 gallons or greater). Inspectors ensure that facilities utilize and dispose of hazardous materials properly, thereby preventing environmental contamination. Over 660 inspections were conducted during the reporting period.

IDEP Training & Evaluation

Staff Training

All relevant Washtenaw County employees in the Water Resources Commissioner's Office will complete IDEP training during the permit term. Any new WCWRC employees involved in the IDEP program will complete IDEP training within one year of their date of hire. Two new WCWRC employees in Field Services received IDEP training at the October 2019 regional training event held at Lathrup Village.

Washtenaw County participates in the Southeast Michigan Regional IDEP Work Group and will host an Illicit Discharge Elimination Program workshop once during the permit cycle in conjunction with the Southeast Michigan Regional IDEP Work Group – Washtenaw, Wayne, St. Clair, Macomb & Oakland counties, the Alliance of Rouge Communities, the Alliance of Downriver Watersheds and SEMCOG.

Program for Determining Overall Effectiveness of IDEP Program

Dry weather screening continues to be performed on regulated County drains. Sampling is per approved procedures as well as other investigation techniques are available to track any potential illicit connections. Dye testing was authorized as part of Washtenaw County's MS4 permit and is another investigation tool. Field inspections resulted in 29 potential illicit connections, but no illicit connections were confirmed upon further investigation. Each IDEP program element/activity will continue to be evaluated periodically for program effectiveness.

Illicit Discharge Ordinances

Prohibiting Non-Stormwater Discharges & pollutants into the MS4

Discharges into Washtenaw County's drains are primarily governed by the Michigan Drain Code, Public Act 40 of 1956. This Act prohibits discharge of sewage, or various waste materials detrimental to drains, or pollution of the waters of the state receiving flow from the drains that can, "injure livestock, destroy fish life, or be injurious to public health."

Environmental Complaint Response

IDEP Tracking Data

Data is kept on file which documents all complaints received and the associated follow-up. As appropriate, the data also tracks field investigation reports, investigation outcome, outfall testing results and enforcement taken. In most cases the County works as a liaison with other municipalities for the resolution of illicit discharges.

Environmental Reporting Line

The County Environmental Reporting Line is a county-wide public reporting and response system for illicit discharges or improper disposal of materials into local storm drain systems. The Environmental Reporting telephone line (734-222-3800) is in operation during business hours (Monday-Friday, 8:30 to 5:00) and is staffed by the Washtenaw County Environmental Health Department. After hours

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emergencies are directed to call 911 for assistance. Calls under the jurisdiction of other entities and municipalities are referred accordingly. Washtenaw County Environmental Health received 86 calls reporting potential issues involving sewage, pollution, wells and pools, with no discharges to the stormwater system.

Dye Testing

Dye testing supports Washtenaw County's Illicit Discharge Elimination Program by providing another mechanism for investigation of discharge into the storm sewer systems. Authorization for dye testing was received as part of the MS4 permit and is permitted with use of the approved procedures.

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CONSTRUCTION STORMWATER RUNOFF CONTROL

In order to control wet weather discharges from construction activities, Washtenaw County has developed procedures and programs to: minimize soil erosion and control runoff from construction sites, ensure that appropriate soil erosion and sedimentation controls are included on site plans, and a process for receiving public notification of discharges from construction activities. The purpose of Washtenaw County's SESC Program is to manage soil erosion and subsequent sedimentation in order to promote the safety, public health and general welfare of the community through effectively sustaining the goal of clean water in Washtenaw County and the State of Michigan.

Soil Erosion and Sedimentation Control (SESC) Programs

Washtenaw County is mandated by EGLE to administer and enforce the soil erosion and sedimentation control requirements under Part 91 of the Natural Resources and Environmental Protection Act, Act 451 of the Public Acts of 1994. The Washtenaw County Board of Commissioners adopted the aforementioned Act and rules promulgated under the Act within the County's SESC Ordinance.

The County administers the SESC program to the following thirteen jurisdictions: Augusta Township, City of Dexter, Lodi Township, Northfield Township, Salem Township, City of Saline, Saline Township, Scio Township, Sharon Township, Superior Township, Webster Township, York Township, and Ypsilanti City. In addition to the WCWRC's County Enforcing Agency (CEA) status, the County is also an Authorized Public Agency (APA) for SESC program management on County projects.

1,074 SESC permits and waivers were issued during the reporting period. Additional information on the SESC program including forms, guidance, permit fee schedules, etc. can be found [online](https://www.washtenaw.org/232/Soil-Erosion-Sedimentation-Control) <https://www.washtenaw.org/232/Soil-Erosion-Sedimentation-Control>.

Notifications - Soil or sediment discharge to the MS4 from a construction activity

WCWRC received and investigated 177 complaints to the soil erosion control program during the reporting period. EGLE was notified on 14 specific cases, as appropriate.

Notifications - Discharge of other polluting material to the MS4 from a construction activity

The County will notify the EGLE district office or the Pollutant Emergency Alert System (PEAS) hotline of the discharge of other polluting materials, in excess of the MI Part 5 threshold reporting quantity, into the County's MS4 from a construction activity in accordance with the Washtenaw County Environmental Response Procedure. No notifications were made during the reporting period.

State of Michigan – Permit-by-Rule Notification

SESC applicants/permittees are advised of the State of Michigan Permit-by-Rule, in the Soil Erosion Permit Application, SESC permit and/or on the SESC website. Additional information on the SESC program including forms, guidance, permit fee schedules, etc. can be found [online at](https://www.washtenaw.org/soilerosion) <https://www.washtenaw.org/soilerosion>.

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POST-CONSTRUCTION STORMWATER RUNOFF CONTROL FOR NEW DEVELOPMENTS & REDEVELOPMENT

Washtenaw County WRC has a process to implement and enforce a program to address postconstruction stormwater runoff from all new and redevelopment projects that disturb 1 acre or more under its jurisdiction. All plats recorded with the Register of Deeds must conform to Act 288 of the Public Acts of 1967, as amended. Under this Act, the Water Resources Commissioner is responsible for ensuring that the drainage or stormwater management system is adequate for the development, and for protecting downstream landowners and resources.

Regulate Post-Construction Controls at New Development & Redevelopment Sites

Rules of the Washtenaw County Water Resource Commissioner (Rules)

The *Rules of the Washtenaw County Water Resource Commissioner* outline procedures and design criteria for stream channel protection, stormwater quality management, flood control, detention pond design and other best management practices. The *Rules* can be found on the WCWRC’s Office website at: <https://www.washtenaw.org/221/Rules-Design-Standards>. The Rules were issued in August 2014 and a revision was issued on October 17, 2016. Additional updates (10/17 and 1/18) were made to the fees, financial assurance mechanisms and the notification timeframe required for onsite appointments. No changes were made to the stormwater methodology or management requirements previously approved by EGLE.

Site plans under the jurisdiction of WCWRC are reviewed to ensure that they are in compliance with the Rules, including proposed long-term maintenance. During the reporting period, 660 plan reviews were completed, and 403 permits were issued.

PCSW				
	2017 (July-Dec)	2018	2019	Total
Number of Plan Reviews Completed	137	284	239	660
Number of Permits Issued	74	127	202	403
Number of Permit Submittals/ Resubmittals	63	297	127	487

Post-Construction Controls at County-owned Facilities

All property owned by Washtenaw County with new development or substantial redevelopment will adhere to the WCWRC Rules. Copies of the site plan reviews and approvals will be kept on file. Locations with water quality devices (e.g. swirl concentrators or other pretreatment measures) will be noted and maintained per manufacturer’s recommendations.

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POLLUTION PREVENTION AND GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS

Washtenaw County will implement a set of pollution prevention Best Management Practices (BMPs) for MS4 municipal operations, maintenance and training activities to control pollution from municipal operations to the maximum extent practicable, as required for municipal facilities and operations regulated under the MS4 permit.

Municipal Facility & Structural Stormwater Control Inventory & Updates

An inventory of County-owned or operated facilities within the MS4 regulated area with a discharge to surface waters of the State is maintained on file. The inventory of regulated facilities was reviewed in 2018 and 2019. Rain gardens were installed at 415 W. Michigan Avenue, the Hogback Service Center and at 4135 Washtenaw Avenue during the reporting period. These locations were added to the active inspection list.

Regulated Municipal Facility Map(s)

Maps with the location of regulated facilities and their stormwater structural controls are available at the following locations: Washtenaw County Western Service Center and/or Facilities Management.

Regulated Municipal Facility – Assessment of Potential for Pollutant Discharge

Each regulated WC facility was prioritized based on having high, medium, or low potential to discharge pollutants to surface waters of the state. The Municipal Facility Inventory & Assessment Procedure includes a listing of regulated County buildings. The assessment was reviewed in 2018 and 2019, as required. No changes in operations were identified during the reporting period.

Regulated Municipal Facilities with High Potential for Pollutant Runoff

Washtenaw County does not currently have any facilities identified as having “high” potential for discharge of pollutants.

Regulated Municipal Facilities with Medium or Low Potential for Pollutant Runoff

The Municipal Facility Inventory & Assessment Procedure includes BMPs utilized at regulated facilities with medium or low potential for the discharge of pollutants to surface waters of the state. The facilities will choose BMPs as appropriate to their facility’s staffing, budget and facility usage characteristics. No changes were made during the reporting period.

Structural Stormwater Control Operation and Maintenance Activities

The Structural Stormwater Control Operation & Maintenance Activity Procedure includes routine inspection, maintenance and cleaning frequencies based on the priority level assigned. The list was reviewed in 2018 and 2019. The list was updated to reflect the addition of 3 rain gardens during the reporting period. Maintenance activities occurred at 5 locations during the reporting period.

Structural Stormwater Control Effectiveness

The Structural Stormwater Control Operation & Maintenance Activity Procedure addresses routine

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inspection, maintenance and cleaning frequencies for catch basins and other structural stormwater controls. The procedure was reviewed in 2018 and 2019.

Proper Handling & Disposal of Operation and Maintenance Waste

Catch basins and other structural stormwater controls may be maintained using a vactor truck. A vactor truck dewatering/disposal program has been established. The WCWRC’s Office - Field Inspection Division coordinates disposal and dewatering of vactor waste at the City of Ann Arbor’s W.R. Wheeler Service Center. The usage of the vactor equipment is tracked using an hourly format. Vactor debris is decanted at the Wheeler Center and sent for landfill. Over 260 cubic yards of material was removed from the stormwater system during the reporting period.

Employee/Contractor Training

Training is provided to field services, parks and facilities employees periodically regarding the County stormwater program, good housekeeping procedures and pollution prevention. Drain inspectors receive IDEP training once during the permit term. Pollution prevention refresher training occurs annually for applicable Environmental Health staff. The County’s website includes general information for employees and the public regarding these topics. Presentations are made, upon request, to employee groups within the County.

Contractor & Vendor Training information is available on the Washtenaw County [website](#). Contractors/vendors are required to comply with the WCWRC’s Office *Rules* which outlines stormwater BMP requirements. Contracts are signed by the vendor and kept on file. In addition, Facilities Management is including stormwater training requirements in their contract language for vendors.

Staff Certifications

Certain job-specific certifications are held by necessary employees. SESC, Construction Stormwater and Industrial Stormwater certifications are kept on record at the WCWRC. Certified Operators follow:

Construction –

LASTNAME:	FIRSTNAME:	EMPLOYER:	C:	EXPIRATION
Cadenas	George E.	Washtenaw County	19328	2022
Castle	William A.	Washtenaw County	10884	2025
Dancer	Robert D.	Washtenaw County	14945	2025
Decker	Marc A.	Washtenaw County	09251	2025
Englehard	Benjamin J.	Washtenaw County	17325	2024
Fry	Michael S.	Washtenaw County	16563	2023
Fults	William R.	Washtenaw County	16019	2022
Griffin	Robert E.	Washtenaw County	11563	2021
House	Autumn N.	Washtenaw County	19337	2022
Lee	Katie A.	Washtenaw County	03760	2022
Marsik	Theresa M.	Washtenaw County	01488	2021
Miller	Scott A.	Washtenaw County	14515	2021
Peters	Jeffrey A.	Washtenaw County	20892	2024

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Rice	Heather N.	Washtenaw County	08491	2024
Sheehan	Harry	Washtenaw County	21256	2025
Streeter	David L.	Washtenaw County	14955	2025
Thiel	Kristi M.	Washtenaw County	19315	2022
Wilcox	Grayson W.	Washtenaw County	20879	2024

Industrial –

LASTNAME:	FIRSTNAME:	EMPLOYER:	I:	EXPIRES JULY 1:
Baranek	April R.	Washtenaw County	13827	2021
Fannon	Richard D.	Washtenaw County	13790	2021
Koloski	Lauren N.	Washtenaw County	13422	2020
Rice	Heather N.	Washtenaw County	04427	2025

IDEP Training

All relevant Washtenaw County employees in the Water Resources Commissioner’s Office will complete IDEP training once during the permit term. Two new WCWRC employees in Field Services received IDEP training at the October 2019 regional training event held at Lathrup Village.

Water Resources Commissioners Field Inspection Division Apprenticeship Program

The purpose of the Field Inspection Division Apprenticeship Program is to establish and maintain high work standards through the development of apprentices who have a complete knowledge of the technical and theoretical aspects of their trades. Successful completion of various training programs and educational course work is one component of this apprenticeship program. The other is on-the-job training in all areas of their trade. All Field Inspection personnel have completed or are currently completing the required curriculum.

Parking Lot Maintenance

Parking lot sweeping is contracted on an as needed basis. Lots are typically only swept prior to being resurfaced. Facilities staff manually remove litter outside each service day. The County does not own any bridges or roads.

Salt and ice melt are purchased pre-bagged, stored indoors and applied sparingly. Parking lot snow removal is a contracted service. During the reporting period, Parks used 192 tons of salt and deicers and Facilities used 719 tons.

Management of County-owned Vegetated Properties

All relevant staff and contractors are trained and certified applicators if using pesticides, herbicides and/or fertilizers as a function of their job responsibilities. 22 Parks and Recreation and 2 WCWRC employees are licensed for the application of pesticides and herbicides.

Washtenaw County does not currently fertilize at any parks or County-owned property. The only exception being Pierce Lake Golf Course which applies fertilizer only after soil testing and based on the amounts recommended per the soil analysis. Any future application at any site other than new lawn establishment will require a soil test.

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TOTAL MAXIMUM DAILY LOAD LIMITS

The permit requires that permittees identify and prioritize actions to reduce pollutants in stormwater discharges from MS4s to impaired waters, to meet Water Quality Standards. The activities included in this report are intended to make progress toward achieving pollutant load reductions for the TMDLs applicable within Washtenaw County.

The following TMDLs are applicable to the discharge from Washtenaw County’s MS4:

Name of TMDL	Pollutant of Concern
Ford and Bellville Lakes	Total Phosphorus
Geddes Pond (Huron River)	<i>E. coli</i>
Honey Creek	<i>E. coli</i>
Mallets Creek	Biota
Paint Creek	Dissolved Oxygen, <i>E. coli</i> , Biota
Rouge River	<i>E. coli</i> , Biota
Swift Run Creek	Biota

Additional Public Education Activities Related Specifically to E. coli and phosphorus TMDLs

HRWC regularly publishes articles in its quarterly newsletter the Huron River Report (circulation 2,200) that feature issues related to E. coli and phosphorus TMDLs. Articles related to these topics during the reporting period included the following:

- Green Infrastructure Takes Root! HRWC completes construction of new projects to improve creeksheds (Summer 2019)
- Lake Monitoring Expands in the ‘Shed, Volunteers capture data on 24 lakes in 2018 (Summer 2019)
- Ford and Belleville TMDL Update, EGLE to redevelop lakes pollution policy (Spring 2019)
- Taking the Pulse of the River, A partnership develops a remote watershed sensor network (Fall 2018)
- Safe Swimming in the Huron River, Stay healthy by deciding when and where to jump in (Summer 2018)
- Digging into Lakes, HRWC investigates harmful algal blooms in Brighton and Ore lakes (Spring 2018)
- Breathing Life Back into Norton Creek, Partners work to restore an impaired tributary (Spring 2018)
- New Rain Gardens in Swift Run! Green infrastructure to improve neighborhood creek and the Huron (Summer 2017)

Related blog posts at <https://www.hrwc.org/blog/> include:

- <https://www.hrwc.org/late-harmful-algae-blooms-hit-shed/>, October 10, 2018
- <https://www.hrwc.org/chemistry-flow-monitoring-program-wraps-up-2018-season/>, October 19, 2018
- <https://www.hrwc.org/what-does-it-take-to-test-the-waters-of-the-huron-river/>, October 22, 2019
- <https://www.hrwc.org/get-your-feet-wet-with-the-chemistry-and-flow-monitoring-program/>, March 7, 2019
- <https://www.hrwc.org/hrwc-launches-whole-farms-for-clean-water/>, August 19, 2019

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DATA & RESULTS

Washtenaw County collaborates with the Huron River Watershed Council, Friends of the Rouge and the Alliance of Rouge Communities for continued surface water quality monitoring. Data and monitoring reports from our partners follow.

Permittees within the Middle Huron River Watershed agreed to work with the Huron River Watershed Council to develop and conduct a water quality monitoring program to collect data and assess the water quality within the river and its tributaries. There are five stormwater related TMDLs in the middle Huron River watershed. While the current permit does not specifically require reporting on TMDLs, Washtenaw County and watershed partners have funded monitoring to determine progress toward meeting each TMDL. This monitoring program is also used determine status and trends of water quality within the Middle Huron River Watershed affected by stormwater discharges. HRWC submitted a plan for this monitoring as an appendix to Storm Water Management Plans (SWMPs), and subsequent permit applications, submitted by permittees within the watershed. That plan was titled “Middle Huron Stormwater Plan for Addressing Total Maximum Daily Loads (TMDLs).”

Subsequently, HRWC conducts water quality monitoring annually during the growing season at eleven long-term sites in the Middle Huron River and its tributaries. Long-term sites help HRWC to determine 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. They report the results of this monitoring following the inclusion of results through September. The most recent report is available at <http://www.hrwc.org/washtenaw-results>. Additional reports can be accessed at <http://www.hrwc.org/chemistryandflow>. Further, HRWC developed a geographically navigable, interactive data explorer web tool called Info Stream (<http://www.hrwc.org/maps>). This portal includes all water quality, habitat, biota and natural area information collected within the watershed, and it is continuously updated as data is generated and quality assured.

Much of this data analysis was also included in the evaluation of four water quality impairments within the watershed. Based on this analysis and discussion with watershed partners, implementation plans were developed and submitted to MDEQ for each of the following five TMDLs:

- [Ford Lake and Belleville Lake – impaired for excessive phosphorus](#)
- [The Huron River between Argo and Geddes Dams – impaired for pathogens](#)
- [Malletts Creek – impaired for aquatic life and habitat](#)
- [Swift Run -- impaired for aquatic life and habitat](#)
- [Honey Creek – impaired for pathogens](#)

HRWC and watershed partners have engaged in numerous projects to implement recommendations from these plans. An umbrella WMP was developed and revised for the entire Middle Huron River watershed in 2011. [Click here to view the 2011 Middle Huron River Watershed Management Plan](#). That plan is in the process of being revised in sections, starting with the middle (Ann Arbor-Ypsilanti) section.

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In general, monitoring data on watershed stressors shows the following key results in the Middle Huron River Watershed:

Concentrations and loading of total phosphorus to Ford and Belleville Lakes have been declining – the most recent loading analysis indicates a 40% reduction in phosphorus loading since the Middle Huron Partnership began in 1996. The most recent annual data indicates a decline in median concentrations down to 0.041 mg/l (mean=0.075 mg/l), which is below the TMDL target for Ford Lake. A few urban and suburban tributaries, including Boyden, Honey, Allens, and Traver Creeks, have also shown promising reductions in recent years. However, a broad examination of total phosphorus concentrations across the eleven long-term sites in the Middle Huron shows that concentration ranges vary quite a bit year to year. The bulk of the concentrations range between 0.03 mg/l and 0.1 mg/l, with a few samples exceeding this range by a considerable margin. Typically, these high concentrations are measured during or following rainstorms. As such, stormwater runoff is still a major pathway of overall phosphorus loading to the middle Huron River.

Mean concentrations of total suspended solids across the Middle Huron are well below sample standards. The vast majority of samples from long-term sites in the middle Huron River watershed had TSS concentrations below the target threshold. The mean TSS concentration across all sites for 2018 was 25 mg/l with a median of 6 mg/l, so most samples are quite clear of sediments throughout the watershed. Recent data even indicates declining TSS at urban tributaries, such as [Allens Creek](#). A few sites, namely [Malletts Creek](#) and [Swift Run](#), occasionally exceed the TSS standard during storms, likely due to erosion.

The data collected on bacteria (as *E. coli*) thus far indicate that all sites except three regularly exceed state standards. Long-term trends for *E. coli* in the Middle Huron are steadily declining at urban tributaries (see [Traver](#) and [Millers](#) Creeks, for example), but not suburban or agricultural tributaries.

Lastly, HRWC also coordinates a macroinvertebrate monitoring program, which analyzes benthic communities at 41 sites in the Middle Huron twice per year. Most of sites in the Middle Huron show a stable aquatic insect community, and some have shown significant improvements including highly urban creeks such as [Malletts Creek](#).

In addition to the TMDL-related parameters measured in the HRWC water quality monitoring programs, HRWC also observed the following results on non-regulated parameters:

- All eleven long-term monitoring sites had average values for dissolved oxygen that are within the normal range for Michigan surface waters.
- Six of the eleven long-term sites had average conductivity values that exceed the accepted limits, most of which were the urban sites.
- All eleven long-term sites exhibit measured pH values that are within the expected range for Michigan surface waters.

HRWC and Middle Huron Partners are also beginning to investigate emerging potential impairments including polyaromatic hydrocarbons (PAHs), per- and polyfluoroalkyl substances (PFAS), and

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microplastics. Insufficient data has been collected to report on status and trends of these substances at this time.

No additional watershed stresses beyond those listed above and others originally listed in the Middle Huron River WMP have been identified.

Monitoring reports for the Rouge River provide water quality data via the following website links, but can also be accessed at www.therouge.org and/or www.allianceofrougecommunities.com.

- [2017 Friends of the Rouge \(FOTR\) Fall Bug Hunt](#)
- [2017 Rouge River Ecosystem Monitoring](#)
- [2018 FOTR Fall Bug Hunt](#)
- [2018 FOTR Spring Bug Hunt](#)
- [2018 FOTR Stonefly Search](#)
- [2019 FOTR Fall Bug Hunt](#)
- [2019 FOTR Spring Bug Hunt](#)
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UPCOMING ACTIVITIES

- Washtenaw County will continue to implement the approved SWMP but acknowledges that planned activities and events have continued to be impacted by the COVID-19 pandemic.
- Actions/programs included in this report will continue.
- PEP activities will continue, and digital/web options may increase.
- Host IDEP training once during the permit term.
- Complete IDEP refresher training for WCWRC Drain Inspectors once during the permit term.
- Continue IDEP dry weather screening of regulated drains.

CHANGES TO BMPs & MEASURABLE GOALS

No changes to BMPs or measurable goals are proposed at this time.

CHANGES IN NESTED JURISDICTION AGREEMENTS

No nested jurisdictions are claimed as part of Washtenaw County's Phase II MS4 Stormwater Permit. No changes are anticipated.

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