

**Collaborative Public Education Plan
Biennial Report for:**

**Clinton River Watershed, Anchor Bay Watershed
and Lake St. Clair Direct Drainage**

Reporting Period:

FY 2022: April 1, 2022 – March 31, 2023

FY 2023: April 1, 2023 – March 31, 2024

Submitted: March 29th, 2024

**Submitted by the Clinton River Watershed Council on behalf of Macomb County,
Oakland County and the MS4 permit holders that participate in the
Clinton River Watershed Council's Stormwater Education Program**



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I. INTRODUCTION

This information is part of the watershed-wide Public Education Plan (PEP) developed to inform the public within the Clinton River watershed, Anchor Bay watershed and Lake St. Clair Direct Drainage about their role in protecting water quality and preventing stormwater pollution. The PEP is a requirement of the National Pollutant Discharge Elimination System (NPDES) permit administered by the Michigan Department of Environment, Great Lakes, and Energy. The permit regulates stormwater discharges from municipal separate storm sewer systems (MS4), in compliance with the provisions of the Federal Water Pollution Control Act (Clean Water Act), as amended (33 U.S.C. 1251 et seq), and Michigan Act 451, Public Acts of 1994, as amended, Parts 31 and 41. The goal of the MS4 program is to reduce the discharge of pollutants to surface waters of the State. This plan was created by the municipalities and other partners in the Clinton River watershed with the input of stakeholders, regulatory agencies, and professionals in the environmental education field. This plan outlines the public education goals and messages that must be communicated under the requirements of the NPDES Phase I and Phase II regulations.

II. PARTNERS

This Biennial Report details the educational activities and programs carried out for FY 2022 and FY 2023 in fulfillment of the watershed wide collaborative PEP and is submitted by the Clinton River Watershed Council (CRWC) on behalf of Macomb County, Oakland County and the MS4 permit holders that participate in the Stormwater Education Program facilitated by CRWC. MS4 permittees generally include the following municipal entities: cities, townships, villages, county agencies, universities, and school districts. Activities facilitated by the CRWC, Macomb and Oakland Counties, and the MSU Extension Office are reported on behalf of the following permit holders and their nested MS4's:

Avondale School District	City of Harper Woods	City of Warren
Charter Township of Chesterfield	City of Hazel Park	Independence Township
Charter Township of Clinton	City of Madison Heights	Macomb Intermediate School District
Charter Township of Harrison	City of Mount Clemens	Macomb Township
Charter Township Orion	City of New Baltimore	Macomb County
Charter Township of Oxford	City of Orchard Lake Village	Oakland County
Charter Township of Shelby	City of Pontiac	Oakland University
Charter Township of Washington	City of Rochester	Oxford Area Community Schools
City of Center Line	City of Rochester Hills	Rochester Community Schools
City of Keego Harbor	City of Roseville	Village of Lake Orion
City of Eastpointe	City of St. Clair Shores	Village of New Haven
City of Fraser	City of Sterling Heights	Village of Oxford
City of Grosse Pointe	City of Sylvan Lake	Village of Romeo
City of Grosse Pointe Farms	City of the Village of Clarkston	
City of Grosse Pointe Park	City of Troy	
City of Grosse Pointe Shores	City of Utica	

III. WATERSHED WIDE ACTIVITIES

Michigan Green Schools Program

Oakland County

FY 2022: For the 2021-2022 school year, 91 Oakland County schools earned the Michigan Green School designation by participating in a minimum of 10 out of 20 environmental and/or energy saving activities. 22 of the schools received the special designation of Emerald Schools by successfully participating in 15-19 activities and 46 schools participated in 20 or more activities to earn the special designation of Evergreen status. 19 of the 28 public school districts had schools represented. In addition, 8 of the schools were recognized for participation for all 15 years of the program.

FY 2023: For the 2022-2023 school year, 86 schools were designated Michigan Green Schools. There were 13 schools that also received the special designation of Emerald status by successfully earning an additional 15 points for extra activities and 51 schools earned the Evergreen status, by receiving an extra 20 points. 15 of the 28 public school districts were represented in the program this year.

Information on the program for Oakland County is available on Oakland Schools' Web site at:
<https://www.oakland.k12.mi.us/student-programs/environmental#:~:text=The%20Michigan%20Green%20Schools%20Program%20encourages%20public%20and%20private%20schools,designated%20a%20Michigan%20Green%20School>

Macomb County

FY 2022: 73 Macomb County schools earned Official Michigan Green School status for the 2021-2022 academic year.

FY 2023: 80 schools were able to take part during the 2022-2023 school year.

Information on the program for Macomb County is available via Macomb County's site at:
<https://bocmacomb.org/programs/macomb-county-green-schools/>

River Day

FY 2022: 15 recreation and stewardship events within the watershed as well as 3 outside of the watershed were promoted and publicized with approximately 535 attendees watershed-wide, and 100 T-shirts distributed to the public.

FY 2023: 20 recreation and stewardship events within the watershed as well as 4 outside of the watershed were promoted and publicized with approximately 643 attendees watershed-wide, and 425 T-shirts distributed to the public.

See Appendix E for a complete list of River Day activities and event locations for FY 2022 & 2023.

Clinton Cleanup

FY 2022: 17 volunteer trash cleanups were completed with 237 volunteers and approximately 2,124 pounds of trash were collected.

FY 2023: 15 volunteer trash cleanups were completed with 276 volunteers and approximately 1,287 pounds of trash were collected.

See Appendix E for a complete list of Clinton Clean Up activities and event locations for FY 2022 & 2023.

Keeping It Clean – Weekly Clean

FY 2022: 33 weekly cleanups, 336 volunteer hours and approximately 2,917 pounds of trash was collected from the Clinton River, its tributaries and surrounding park areas. Of the 33 scheduled cleanups, 2 were cancelled due to inclement weather.

FY 2023: 31 weekly cleanups, 517 volunteers and approximately 6,500 pounds of trash collected from the Clinton River, its tributaries and surrounding park areas. Of the 31 scheduled cleanups, 2 concluded early due to inclement weather.

See Appendix G for a complete list of cleanup dates, locations, and sign-in sheets for FY 2022 & 2023

Water Festivals

Clinton River Water Festival at Oakland University

FY2022: The 16th annual festival was held on May 20, 2022 at Oakland University in Rochester Hills. A total of 36 classes from 16 schools attended – a total of nearly 800 students and 153 teachers and chaperones were educated about the importance of water in their daily lives in the Clinton River watershed. A total of 37 different stations were visited by the classes represented by a variety of public and private water resource professional organizations.

- WRC Dirt Doctors presented to 5 classes, approximately 106 students
- Oakland County Parks presented "Wild About Watersheds" to 5 classes, approx. 123 students
- Oakland County Health Dept. presented "Groundwater Modeling" to 5 classes, approx. 94 students
- MSU-Extension Oakland County presented "All of Our Water is Connected and Ours to Protect" to 5 classes, approx. 123 students

FY2023: The 17th annual festival was held on May 19, 2023 at Oakland University. A total of 40 classes from 16 schools attended – reaching a total of just over 900 students and 169 teachers and chaperones. A total of 40 different stations were visited by the classes represented by a variety of public and private water resource professional organizations.

Lake St. Clair Water Festival at Macomb Community College

FY 2022: 776 participants attended including 647 students, 20 teachers/chaperones, and 31 volunteers.

FY 2023: 963 participants attended including 886 students, 33 teachers/chaperones, and 23 volunteers.

Stormwater Management Forums

FY 2022: In FY2022, CRWC hosted 4 Stormwater Management Forums targeted at municipal staff, elected officials, City Council members, engineers, consultants, planners, and EGLE staff. There was a total of 47 attendees and the locations were Macomb Intermediate School District on 6/16/22, Sterling Heights DPW on 11/17/22, and virtual on 9/15/22 and 3/16/23.

FY 2023: In FY2023, CRWC hosted 4 Stormwater Management Forums targeted at municipal staff, elected officials, City Council members, engineers, consultants, planners, and EGLE staff. There was a total of 83 attendees and the meetings were hosted at the Orion Township Municipal Center on 7/20/23, the Clinton Macomb Public Library North branch on 11/30/23, and virtually on 9/21/23 and 1/16/24.

See Appendix F for Stormwater Management Forum agendas and sign-in sheets for FY 2022 & 2023

Community Presentations and Workshops

FY 2022: 28 stormwater education presentations were held virtually, or in person, with 446 attendees.

FY 2023: 34 stormwater education presentations were held virtually, or in person, with 717 attendees.

See Appendix H for a complete list of dates, locations, flyers, and sign-in sheets for stormwater presentations for FY 2022 & 2023

Adopt-A-Stream (AAS) Training Workshops

FY 2022: 8 AAS volunteer trainings, 1 Stonefly Search volunteer training, 2 bug ID workshops, 56 attendees.

FY 2023: 9 AAS volunteer trainings, 1 Stonefly Search volunteer trainings, 2 bug ID workshops, 43 attendees.

See Appendix H for a complete list of dates, locations, and sign-in sheets for AAS trainings for FY 2022 & 2023

Adopt-A-Stream Water Quality Monitoring Program

FY 2022: 39 locations were monitored by approximately 250 volunteers.

FY 2023: 46 sites were monitored by approximately 490 volunteers.

See Appendix H for AAS training and event flyers.

Subwatershed Website

FY 2022/2023: Maintain web pages, update information, and verify participating community's links to this website. <https://www.crowc.org/clinton-river-watershed>. Metrics prior to December of 2023 are not available due to a transition of web host. Between December of 2023 and March of 2023, the page has seen 827 unique views. Users averaged 2 minutes and 21 seconds on page.

Stream Leaders Student River Monitoring Program

Students and mentors collect macroinvertebrates, test water chemistry, and observe stream morphology at their stream site to determine water quality. A table of monitoring dates, times, and locations is available from the CRWC upon request. Numbers for participation in the program have been slowly recovering since the COVID-19 pandemic. Since 2021 CRWC has made the program available in multiple ways to meet the needs of schools and bring the program to a more diverse audience. Live virtual opportunities along with public events have been implemented for this purpose.

FY 2022: Engaged 1,342 students, 50 teachers and mentors, and 16 schools.

FY 2023: Engaged 1,339 students, 41 teachers and mentors, and 17 schools.

RiverSafe LakeSafe

The RiverSafe LakeSafe (RSLs) program is a public education campaign that aims to educate and recognize watershed residents who incorporate best management practices at home to keep our freshwater resources clean and healthy. An annual program report and map of certifications is available from the CRWC upon request.

FY 2020: 25 new certifications, leading to a total of 141 RSLs certifications since the program's inception in 2016.

FY 2021: 5 new certifications, leading to a total of 146 RSLs certifications since the program's inception in 2016.

WaterTowns

FY 2022: 10th year of the WaterTowns™ (WT) initiative with a total of 30 communities committed resolutions to participating in the program. Two WT were established in 2022; Pontiac and Oakland County.

FY 2023: 11th year of the WaterTowns® (WT) initiative with two new communities joining the program; Warren and Oak Park. The WT program now has a total of 32 communities dedicated to enhancing water resources through education, engagement, and green stormwater infrastructure implementation. Keego Harbor as well as Center Line have made use of their mini-grants through the WaterTowns program at this time. Additional work was also done in Ferndale to create a parks best management practices manual, a rain garden replanting and student bioswale project were completed in Clarkston, a wet meadow restoration project was completed in Rochester, and assistance was provided to Eastpointe for a GSI retrofit on 9 Mile Rd.

Stormwater Education for Industrial and Commercial Facilities

FY 2022: Development and distribution of Best Management Practices flyers targeting Coal Tar Sealant and Concrete Washout. BMP flyers were distributed digitally via the Stormwater Monday email and as hard copies with the stormwater display. CRWC Maintains membership with the Sterling Heights Chamber of Commerce. Through Macomb County outreach, over 50 businesses were visited and given materials.

FY 2023: Development and distribution of Best Management Practices flyers targeting Food service and Clean Boating practices. BMP flyers were distributed digitally via Stormwater Monday email and as hard copies when communities host the stormwater display. CRWC

Maintains membership with the Sterling Heights Chamber of Commerce. Through Macomb County outreach, over 123 businesses were visited and given materials.

See Appendix D for copies of the BMP fact sheets.

Social Media Outreach

FY 2022: Tracking data available for Facebook: 1,354 Likes; 61 Comments; 423 Shares across 184 posts. Tracking available for Instagram: 1,513 Likes; 21 comments across 147 posts.

Tracking available for Twitter: 34 engagements; 1 comment across 8 posts.

FY 2023: Tracking data available for Facebook: 1,867 Likes; 72 Comments; 547 Shares across 334 posts. Tracking available for Instagram: 1,856 Likes; 26 comments across 232 posts.

Tracking available for Twitter: 348 engagements; 6 comments; 24 retweets across 134 posts.

IV. MACOMB COUNTY SPECIFIC ACTIVITIES

Public Works Presentations

FY 2022: 30 presentations were conducted in FY2022.

FY 2023: 25 presentations were conducted in FY2023.

Clean Boating

FY 2022/2023: Clean Boating events were planned and held by Lake St. Clair CISMA and Play, Clean, Go Group with one event taking place in 2022 and two taking place in 2023.

MSU Extension Understanding Groundwater

FY 2022: No programs surrounding groundwater were facilitated in 2022.

FY 2023: 162 students attended the Lake St. Clair Water Festival presentation surrounding groundwater presented by MSU Extension.

MSU Extension Water Conservation Program

Numbers gathered through Water Conservation Program delivered by Extension Educator Angela Scapini to Macomb County 4-6th graders. Angela started as a temp in August 2022, and became full time August 2023.

FY 2022: 41 students reached through the program.

FY 2023: 277 students reached through the program.

MSU Extension Master Gardener Program

FY 2022: 147 volunteers completed 7,910 volunteer hours.

FY 2023: 152 volunteers completed 7,386 volunteer hours.

MSU Extension Master Composter Program

FY 2022: Was not completed in 2022 due to a retirement.

FY 2023: Was not completed in 2023 due to a retirement.

MSU Extension Sea Grant Summer Discovery Cruises

FY 2022: Summer Discovery Cruises did not take place in 2022.

FY 2023: Summer Discovery Cruises returned to Lake St. Clair Metropark in summer of 2023. 152 participants attended a cruise.

MSU Extension 4-H Environmental and Outdoor Education

FY 2022: 1,917 youth and 150 volunteers engaged.

FY 2023: 1,162 youth and 115 volunteers engaged.

MSU Extension Public Education Classes

FY 2022: 810 programs completed with 6,976 participants.

FY 2023: 872 programs completed with 7,683 participants.

Facility Tours

FY 2022: 21 participants engaged in 2022.

FY 2023: 28 participants engaged in 2023. Organizations engaged include CRWC, Lake St. Clair CISMA, Planet Detroit, Romeo Academy, WSU EH Class, and Macomb County Interns.

Household Hazardous Waste Collection

FY 2022: 12 events were held, collecting 114,607 pounds of hazardous waste.

FY 2023: 12 events were held, collecting 114,207 pounds of hazardous waste.

Medication Disposal

FY 2022: 1,618 pounds of unused medication were collected.

FY 2023: 948 pounds of unused medication were collected through December 2023.

The Blue Economy Initiative

FY 2022: 1 event held; Sprint & Splash Event took place at the Lake St. Clair Metropark on August 13th, 2022.

FY 2023: 2 events held; Sprint & Splash Event took place at the Lake St. Clair Metropark on August 12th, 2023. The Bass, Brews, and BBQ festival also took place at Brandenburg Park July 27th-30th, 2023.

Lake St. Clair Initiative Circle the Lake Tour

FY 2022/2023: URL and maps are provided at events throughout the year.

Clinton River Blue Way Water Trail

FY 2022: Awaiting information from Macomb County

FY 2023: Awaiting information from Macomb County

Phragmites Invasive Removal

FY 2022: Macomb County staff attended 6 CISMA meetings in 2022.

FY 2023: Macomb County staff attended 6 CISMA meetings in 2023.

Spill Awareness

FY 2022: Attended 4 emergency response meetings.

FY 2023: Attended 4 emergency response meetings. Macomb County is also working to develop a Spill Response plan with US Army Corps of Engineers.

Bulletin Boards and Displays

FY 2022/2023: Clean water materials are printed and handed out for displays around the county, such as city halls, libraries, and other public spaces. Over 1,500 water quality cards, winter reports, and stormwater packets were distributed at events such as the Armada Fair and the Sterling Heights Senior Expo.

Macomb County Social Media Sites

FY 2022/2023: Macomb County's website can be found at www.macombgov.org and is updated regularly with news updates, educational resources, contact information, and more. Drain Commissioner's Facebook page has over 13k followers. Department and water quality posts average 2 per week.

Publications

FY 2022: Direct mail 246 pieces 2x a year to community leaders. Sent 200 letters to Sterling Relief neighbors advising of GSI improvements.

FY 2023: 150 letters to Sterling Relief neighbors. Stormwater Standards Manual emailed to 297 recipients. 246 pieces direct mailed to community leaders. 83 pieces sent out with annual report.

Riparian Information

FY 2022: 15 residents engaged through inquiries and at events. Over 100 inquiries received in 2022.

FY 2023: 12 residents engaged through inquiries and at events. Over 100 inquiries received in 2023.

Non-required Macomb County Activities

Board of Commissioners Earth Day Contest

FY 2022/2023: This activity has been discontinued post-Covid.

Green Macomb

FY 2022: Planted over 500 trees across 8 events, as well as saplings provided to student attending the Lake St. Clair Water Festival.

FY 2023: Planted over 500 trees across 8 events, as well as saplings provided to student attending the Lake St. Clair Water Festival.

HEART Freshwater Center

FY 2022: Testing/events occurred more than 2 times. Both Macomb County Health Department and Public Works Department utilize the lab for *E. coli* testing.

FY 2023: Testing/events occurred more than 2 times. Both Macomb County Health Department and Public Works Department utilize the lab for *E. coli* testing.

V. OAKLAND COUNTY SPECIFIC ACTIVITIES

Regional Stormwater Summit

FY 2022: The 8th Annual Stormwater Summit was held virtually on October 29, 2021 via Zoom. Speakers included representatives from WRC, SEMCOG, OHM Advisors, Drummon Carpenter, the City of Royal Oak, EGLE and the City of Grand Rapids. The agenda is available upon request.

FY2023: The 9th Annual Stormwater Summit was held on October 21, 2022 with approximately 170 attendees. Event details are available online at: <https://www.mi-stormwatersummit.com/>

Bulletin Boards

FY 2022/2023: Throughout FY 2022/2023, the WRC had a variety of information related to storm drain awareness on display in its main lobby. Information on the “Seven Simple Steps to Clean Water”, and copies of the “Waterfront Wisdom” Booklet, “Kids Clean Water Calendar” and “Oakland County 24-Hour Pollution Hotline” brochure are available year-round. The Alliance of Rouge Communities developed a variety of seasonal posters on protecting water quality with tips to consider for spring, summer, winter and fall. That poster was framed and hung in the WRC lobby beginning in FY 2017 and is rotated out seasonally.

Dirt Doctors Program

FY 2022/2023: Approximately 2,749 students and adults and 61 teachers in 283+ different presentations at 12 different events were reached in FY 2022. The Dirt Doctors attended events in Ann Arbor, Bloomfield Hills, Detroit, Farmington, Macomb, Pontiac, Rochester Hills, and Royal Oak. There were no pre-/post-surveys for the program disseminated in FY2022.

Drain Detectives Program

FY 2022/2023: Approximately 3,300 students, adults and teachers in 660+ different presentations at 14 different events were reached in FY 2023. The Dirt Doctors attended events in Ann Arbor, Bloomfield Hills, Detroit, Macomb, Pontiac, Rochester Hills, Royal Oak, Walled Lake and West Bloomfield Twp. There were no pre-/post-surveys for the program disseminated in FY2023.

A pre-recorded Dirt Doctors program was put together in September 2020 and as of September 30, 2023, it has been viewed 221 times. The pre-recorded program is available online at:

<https://www.youtube.com/watch?list=PLxN0wQGF96CL-c9anor-74HawzUbqXk61&v=aOOQjrSD8vq&feature=youtu.be>

Enviroscape Watershed Model Program

FY 2022: Approximately 34 students, teachers and Girl Scout leaders in two (2) different presentations at two (2) different events were reached in FY 2022. In addition, the Rouge River Water Festival was held virtually for 47 classrooms and 1,062 students and the virtual Watershed Model Demonstration link was shared with teachers. WRC staff also presented the Enviroscope watershed model at events in Oxford and Novi. There were no pre- or post-evaluations administered in FY 2022.

FY 2023: In FY 2023, the program reached more than 1,064 students, teachers and parents in more than 118 presentations at four different events in Bloomfield Hills, Rochester Hills and Walled Lake. There were no pre- or post-evaluations administered in FY 2023.

In order to reach people virtually, a 32 minute pre-recorded Enviroscope Watershed Model demonstration was created in September 2020 and is available online at:

<https://www.youtube.com/watch?list=PLxN0wQGF96CL-c9anor-74HawzUbgXk61&v=ipllqsx1Zvc&feature=youtu.be>. As of September 30, 2023, the video has been viewed 448 times.

E-newsletter Articles

FY 2022/FY 2023: The WRC's E-Newsletter reaches nearly 2,650 individuals via e-mail and includes the following groups:

- State Representatives
- State Senators
- SWAGs
- County Commissioners
- City Council members including Mayors (those that OC has emails for)
- Township & Village Trustees/Council (those that OC has emails for)
- Township Supervisors
- Township Clerks
- Township & City Treasurers
- WRC Staff
- Media contacts (small list)
- Folks that have signed up for various updates on our WRC web site subpages (a lot of overlapping emails and a number of CVT DPW folks)
 - In FY 2022/2023, two (2) "In the Flow" Employee Newsletters were distributed to approximately 318 WRC staff and available upon request. The 2022 and 2023 Kids' Clean Water Calendar contest was highlighted in the Winter 2021/Spring 2022 and 2022/Spring 2023 Editions.
 - In FY 2022/2023, WRC distributed three (3) E-newsletters. Digital copies of the E-newsletters are available upon request.

Household Hazardous Waste Information

FY 2022: In FY 2022, the Oakland County Planning & Local Business Development Dept. sponsored four (4) household hazardous waste disposal days: April 30, June 4, July 23 and September 24, 2022. The April 30 and September 24 collection events were held at the Oakland

County Service Center in Pontiac, June 4 at Oxford Middle School in Oxford and July 23 at Kensington Church in Orion Township. A total of 641,797 pounds of household hazardous waste was collected during the four collection events.

FY 2023: In FY 2023, the Oakland County Planning & Local Business Development Dept. sponsored four (4) household hazardous waste disposal days: April 29, June 3, July 22 and September 16, 2023. The April 29th event was held at Pine Knob Music Theatre in Independence Twp; the June 3rd event was held at Oxford Middle School in Oxford, the July 22nd event was held at Kensington Church in Orion Township and the September 16th event was held at the Oakland County Service Center in Pontiac. A total of 507,324 pounds of household hazardous waste was collected during the four collection events.

Since the program began in 2003, residents of almost 69,000 households have disposed of more than 9 million pounds of hazardous materials which have been recycled or disposed of properly. There are two solid waste authorities in the southern portion of the county that handle the waste for several member communities. One of these authorities holds several household hazardous waste collection events for residents, while the other offers year-round service for residents of its member communities. A few communities offer their own collection events each year.

Information on household hazardous waste disposal in Oakland County is available online at: www.nohaz.com. There were 35,755 website hits in FY 2022 and 29,327 website hits in FY 2023 to the County's Household Hazardous Waste Recycling Information.

Kid's Clean Water Calendar Contest

FY 2022: A total of 586 children across Oakland County participated in the 2022 Kids' Clean Water Calendar Contest. A total of 5,500 calendars were distributed across Oakland County. Drawings were submitted from classes representing 27 schools (31 classes). There were also 26 separate entries from individual residents.

An online gallery of the 2022 contest winners is available at:

<https://www.oakgov.com/government/water-resources-commissioner/resources/education/kids-clean-water-calendar-contest/2022-contest-gallery> In

FY 2022, there were a total of 1,689 hits to the Calendar Contest website.

FY 2023: A total of 718 4th and 5th graders across Oakland County participated in the 2023 Kids' Clean Water Calendar Contest. A total of 5,500 calendars were distributed across Oakland County. Drawings were submitted from students representing 42 schools (41 classes) and there were also 39 separate entries from individual residents.

An online gallery of the 2023 contest winners is available at:

<https://www.oakgov.com/government/water-resources-commissioner/resources/education/2023-contest-gallery>

In FY 2023, there were a total of 1,508 hits to the Calendar Contest website.

Natural Resources Education Program

FY 2022/2023: Oakland County Parks continues to display and distribute O CPR 'Stop Aquatic Hitchhikers' Brochures and educational items which provide ID and control information for the top AIS found at O CPR parks and species of emerging concern including Eurasian watermilfoil,

purple loosestrife, curly leaf pondweed, European Frogbit and starry stonewort. These brochures are kept and distributed via contact stations and boathouses at parks that have public boat access. OCPRC also operated two mobile boat wash stations across the County from late May to late September that provided educational information about aquatic invasive species including prevention, identification and decontamination practices.

Oakland County Environmental Stewardship and Water Resource Websites

FY 2022/FY2023: WRC, Oakland County Planning (OCPLBD), and Oakland County Parks (OCPRC) maintain environmental stewardship and/or water resource information on their Web sites at:

- OCPLBD: <https://www.oakgov.com/community/community-development/environmental-stewardship> (a total of 1,306 website hits in FY 2022 and 2023)
- WRC: www.oakgov.com/riparian (a total of 1,545 website hits in FY 2022 and 2023)
 - WRC 24-Hour Pollution Hotline: <https://oakgov.com/government/water-resources-commissioner/stormwater/24-hour-pollution-hotline> (a total of 1,209 website hits in FY 2022 and 2023)
- OCPRC: <https://oakgov.com/community/oakland-county-parks/get-involved/natural-resources-management> (a total of 1,738 website hits in FY 2022 and 2023)

In FY 2018, Oakland County Information Technology developed a Seven Simple Steps to Clean Water Story Map and that is available at:

<https://oakgov.maps.arcgis.com/apps/Cascade/index.html?appid=1676f95c659d408e94bf73096db93387>; a link to the Story Map is on WRC's "Seven Simple Steps to Clean Water" website at: <https://oakgov.com/government/water-resources-commissioner/resources/education/seven-simple-steps-to-clean-water>. The page also promotes the 24-Hour Pollution Hotline and viewers can explore land use changes from 1940 vs. 2017 imagery within Oakland County.

There were 280 website hits in FY 2022 and 184 website hits in FY 2023 to the WRC's Seven Simple Steps to Clean Water website. The Storymap received 129 website hits in FY 2022 and 100 hits in FY 2023. To date, the Storymap has received 1,000 views.

Lakefront Lifestyles Magazine Advertisements and Articles:

FY 2022/FY2023: The Lakefront Lifestyles magazine gets mailed to 15,600 lakefront homeowners on any of 226 inland lakes in west and central Oakland County. The magazine is also reported to make 40,000 monthly ad impressions on the Lakefront website at: www.oaklandlakefront.com.

WRC coordinated and funded the publication of the following educational advertisements in the Oakland Lakefront magazine during FY 2022/2023:

- April 2022/2023 - Pet Care (pet waste management)
- May 2022/2023 - Storm Drain Awareness (Oakland County's 24-Hour Pollution Hotline is also advertised within this ad)
- June 2022/2023 - Earth-friendly Landscaping (promotion of the use of native plants)

- July 2022 - Car Care
- August 2022** - Household Hazardous Waste (proper disposal and chemical alternatives)
- September 2022** - Septic Maintenance

**NOTE: Due to a family matter, the publisher was unable to publish the August and September editions of the Lakefront Lifestyles magazine in FY 2023; therefore, only 4/6 ads were published and invoiced for FY2023.

-A total of \$5,070.00 was spent on ads in FY 2022 (six ads at \$845 ea.)

-A total of \$3,580.00 was spent on ads in FY 2023 (four ads at \$895 ea.)

In FY 2022/2023, a total of 18 articles and ads related to water and natural resource management were published in the Lakefront Lifestyles magazine.

Publicize Environmental Related Events

FY 2022/FY 2023: A total of 10 events were publicized on the bulletin board in the WRC lobby in FY 2022 and 2023. A complete listing of these events is available upon request. Many events were also shared via social media during FY 2022/2023 between WRC, OC Parks, OC CISMA and partner organizations.

Recreational Vehicle Waste Dumpsites

FY 2022/FY 2023: The WRMD website has a link to RV dumpsites in MI and is available at: <https://www.oakgov.com/community/community-development/waste-recycling/waste-recycling-resources> (under the "Statewide" dropdown, then click on "Recreational Vehicle Dump Stations in Michigan"). A searchable list of RV dump sites in Michigan is also available online at: <https://www.sanidumps.com/>. There were 2,460 website hits in FY 2022 and 4,591 website hits in FY 2023 to the County's Waste and Recycling Resources website.

Riparian Information Distribution

To date, more than 17,000 Waterfront Wisdom booklets have been distributed.

An excel spreadsheet that details the distribution list is available upon request.

FY 2022: There were 713 website hits during FY 2022 on WRC's website for riparian education.

FY 2023: There were 832 website sites during 2023 on WRC's website for riparian education.

Solid Waste Plan

In late 2022, the Michigan legislature passed a package of bills to update Michigan's solid waste management laws. The old Solid Waste Management Plans will become Materials Management Plans with an emphasis on using materials to the fullest and best use before discarding them. The Director of the MI Department of Environment, Great Lakes & Energy (EGLE) officially called for these Plans to be initiated on January 8, 2024. The first few tasks of this process are administrative in nature and the Oakland County Planning & Local Business Development staff are working with the Board of Commissioners staff to start these tasks. This process is expected

to take 3-4 years. Oakland County continues to participate in EGLE and SEMCOG workgroups to learn as much about this process as possible. Oakland County will submit an RFP for a consultant to assist in writing this plan later in 2024.

FY 2022: 404 hits to the County's Solid Waste Plan website.

FY 2023: 453 hits to the County's Solid Waste Plan website.

The county's current Solid Waste Plan is available at:

<https://www.oakgov.com/community/community-development/waste-recycling/solid-waste-plan>.

Inland Lake Natural Shoreline Education Program

Several educational programs were held on understanding lake ecology and the importance of natural shorelines on inland lakes. Programs were held for lake residents, natural resource professionals, lake managers, elected and appointed government officials, and educators. The Introduction to Lakes Online course ran two times, once between January- March 2022 with 61 out of 524 participants from Oakland County and January- March 2023 with 31 of 317 participants from Oakland County. Topics included lake ecology, watersheds, shorelines, water law, aquatic plants, and citizen involvement. There were also three live chat sessions during each course.

Lake ecosystem content was also included in the virtual Michigan Conservation Stewards Programs held in Fall 2021 in which 42 individuals were enrolled in the Oakland cohort.

A Michigan Natural Shoreline Partnership training (days of in-class training and one summer field installation day) for contractors was held at Camp Petosega in Alanson, Michigan on 10/19/2022 through 10/21/2022 to train shoreline contractors how to design and install natural shorelines on inland lakes. Another training was held on March 6-7, 2023 at Michigan State University with field demonstration taking place on June 6 in Paw Paw, MI on Paw Paw Lake in which 26 participants were trained.

During FY2022-3, the following number of lakes in Oakland County were enrolled in the Cooperative Lakes Monitoring program each year: 2022 (22); 2023 (25). Full information about the Cooperative Lakes Monitoring Program can be found here: <https://micorps.net/lake-monitoring/>.

In 2023, the Clean Boats, Clean Waters Program, funded through the Great Lakes Initiative and is a partnership between MSU Extension and the Michigan Department of Great Lakes and Energy, awarded up to \$3,000 to organizations communicating aquatic invasive species prevention information through outreach materials and in-person educational events to boaters. In 2023, the Lakeville Property Owners Association received funding to support installing a CD3 roadside boat cleaning station at the Lakeville Lake DNR Boat launch, hosting educational events, and sharing information and resources with property owners.

MSU-Extension hosts a website dedicated to learning all about Michigan inland lakes at: <https://www.canr.msu.edu/michiganlakes/online-learning>

FY 2022: There were 226 website hits.

FY 2023: There were 269 website hits.

Operation Medicine Cabinet

There are currently 36 drop-off sites throughout Oakland County where unused pharmaceuticals can be properly disposed of, including the following:

Oakland County Sheriff's offices (13) in Addison Twp, Brandon Twp, Commerce Twp, Highland Twp, Independence Twp, Lyon Twp, Oakland Twp, Orion Twp, Oxford Twp, Pontiac, Rochester Hills and Springfield Twp; additionally, partner law enforcement agencies Auburn Hills PD, Beverly Hills Village Dept. of Public Safety, Birmingham PD, Bloomfield Hills Dept. of Public Safety, Bloomfield Twp. PD, Clawson PD, Farmington Hills PD, Ferndale PD, Franklin PD, Hazel Park PD, Holly PD, Huntington Woods Dept. of Public Safety, Keego Harbor PD, Madison Heights PD, Oak Park PD, Orchard Lake PD, Oxford Village PD, Rochester PD, Royal Oak PD, South Lyon PD, Troy PD, West Bloomfield PD, White Lake PD and Wixom, who all serve as OMC drop-off sites.

New in FY 2017, a GIS-based online application is available for the public to see drop-off sites throughout the county and is available at:

<https://oakgov.maps.arcgis.com/apps/webappviewer/index.html?id=db4052d9ca5c4e1798a7dfd2a54e3c25>.

FY 2022/2023: There were 1,613 website hits in FY 2022 and 1,232 in FY 2023 to the Operation Medicine Cabinet website at: <https://www.oakgov.com/government/sheriff/community-services/domestic-safety/operation-medicine-cabinet>.

VI. COMMUNITY SPECIFIC ACTIVITIES

Presentations and Displays

MS4 permittees are required to host an education stormwater display at least once during the five-year permit cycle. CRWC circulates a free standing, subwatershed specific display that covers topics relating to stormwater runoff and protecting water quality. The display can be requested via a survey distributed monthly through the Stormwater Monday listserve, via email, or phone call. Presentations are scheduled annually (2) per subwatershed but are also readily available to communities upon request. The table below shows the distribution of the display among the participating MS4 communities.

Municipality/District	Start Date	End Date	Location	Subwatershed Display Hosted
Village of New Haven	3/15/2022	4/15/2022	City Hall	AB

City of Hazel Park	3/16/2022	3/30/2022	City Hall	RR
City of Orchard Lake Village	3/21/2022	4/18/2022	City Hall	CM
City of Grosse Pointe	4/4/2022	4/25/2022	City Hall	LSC
City of Madison Heights	4/4/2022	4/25/2022	City Hall	RR
City of Troy	4/25/2022	5/23/2022	Community Center	RR
City of Rochester	5/2/2022	5/31/2022	Department of Public Works	SP
Charter Township of Chesterfield	5/9/2022	5/26/2022	Township Hall	AB
Oxford Village	6/7/2022	7/5/2022	Township Hall	SP
Macomb Township	6/8/2022	7/6/2022	Township Hall	NB
City of Harper Woods	6/24/2022	7/22/2022	Township Hall	LSC
Oxford Township	7/18/2022	8/1/2022	Township Hall	SP
Oxford Community School	8/29/2022	9/26/2022	Oxford Community School	SP
Oakland University	10/3/2022	10/31/2022	Oakland Center	CM
City of Sylvan Lake	11/7/2022	11/29/2022	City Hall	CM
Warren	11/29/2022	1/12/2023	City Hall	RR
Shelby Township	12/1/2022	5/24/2023	Department of Public Works	CREW
Lake Shore Public Schools (MISD)	1/10/2023	1/24/2023	Administration Center	LSC
Lake View Public Schools (MISD)	1/24/2023	2/7/2023	Jefferson Middle School	LSC
Roseville Community Schools (MISD)	2/7/2023	2/21/2023	Roseville Admin Building	LSC
Eastpointe Public Schools (MISD)	2/21/2023	3/7/2023	EPS Administrative Center	LSC
Oxford Township	4/3/2023	5/24/2023	Oxford Township Hall	PC
Hazel Park	4/26/2023	6/1/2023	Hazel Park City Hall	RR
Rochester	5/19/2023	6/2/2023	Van Hoosen Farms	SC
Rochester Hills	5/19/2023	6/2/2023	Van Hoosen Farms	SC
City of Eastpointe	6/1/2023	6/19/2023	Townhall	LSC
Village of Oxford	8/21/2023	9/18/2023	Village offices	SC
Avondale Schools	10/2/2023	10/6/2023	Admin Building	CM
Oxford Community Schools	10/30/2023	11/30/2023	Admin Building	SC
Utica	2/1/2024	2/29/2024	City Hall	CREW
Rochester	2/15/2024	2/29/2024	City Hall	CM

Regional Public Education Materials

Educational materials such as SEMCOG tip cards, dog waste bags with Seven Simple Steps to Clean Water print, and educational flyers are available to communities upon request via a survey distributed monthly through the Stormwater Monthly (formerly Monday) listserve. These materials are also provided when communities host the stormwater display. Permittees track distribution using tracking tool Appendix B.

Subwatershed Website

Website link: <https://www.crowc.org/clinton-river-watershed>. Metrics prior to December of 2023 are not available due to a transition of web host. Between December of 2023 and March of 2023, the page has seen 827 unique views. Users averaged 2 minutes and 21 seconds on page.

Community Information

CRWC will distribute a minimum of (4) educational articles, brochures, or fact sheets annually. Communities and school districts will publish via print or digital media. 42 unique flyers were included in monthly newsletters to communities and school districts through 2022 and 2023, including 4 flyers targeting commercial and industrial sectors. See Appendix D for resources distributed. Permittees report distribution using tracking tool Appendix B. Resources are also available on the “Resources” pages of the CRWC website at <https://www.crowc.org/resource-library>.

See Appendix D for copies of all BMP fact sheets.

Household Hazardous Waste Information

If applicable, permittees provide working links to websites and report via Appendix B.

Recreational Vehicle Waste Dumpsites

If applicable, permittees provide working links to websites and report via Appendix B.

Riparian Information Distribution

If applicable, permittees provide working links to websites and report via Appendix B.

VII. APPENDICES

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APPENDIX A

PEP Activities Table

Contents

PEP Activities Table

PEP TOPIC	BMP IDENTIFIER	BMP DESCRIPTOR	PARTNER COLLABORATION	TARGET AUDIENCE	Key Message(s) Addressed Green =High Priority Orange= Medium Priority Yellow= Low Priority										FREQUENCY	RESPONSIBLE PARTY	MEASURABLE GOAL	
					PEP Element A - Personal Watershed Stewardship	PEP Element B - Ultimate Storm Water Discharge Locations and Potential Impacts	PEP Element C - Public Reporting of Illicit Discharges	PEP Element D - Car, Pavement PowerWashing	PEP Element E- Pesticides, Herbicides, Fertilizer Education	PEP Element F-Grass Clippings, Leaf Litter, Animal Waste Disposal	PEP Element G - Waste Management Assistance	PEP Element H- Septic System Maintenance	PEP Element I - Benefits of Green Infrastructure LID	PEP Element J - Mgt. of Riparian Lands				PEP Element K - Commercial, Industrial, Institutional Education
Watershed Wide Activities																		
A-C, E-G, I, J	Michigan Green Schools Program	This program was signed into law at the state level in 2006. The program encourages public and private schools to participate in energy savings and environmental activities to be designated as "Michigan Green Schools".	YES	K-12th grade students and teachers	x	x	x		x	x	x		x	x	Annually	Oakland Macomb	Minimum participation of 100 schools annually in each county.	
A-G, I,J	River Day	CRWC will recruit, host and promote events. MS4 permit communities will promote River Day events.	YES	Citizens including the general public and county and municipal employees	x	x	x	X	x	x	x		x	x	Annually	CRWC	Promote and publicize a minimum of 15 events annually.	
A,B,C,J, K	Clinton Cleanup	CRWC will recruit, host and promote events. MS4 permit communities will promote Clinton Clean Up events. Recruitment of volunteers is targeted to the general public, as wells as commerical, industrial and corporate partners.	YES	Citizens including the general public and corporate employees/volunteers	x	x	x							x	x	Annually In September	CRWC	Host a minimum of 12 events annually 150 volunteers and 150 bags of trash removed.
A,B,C,J, K	Weekly Clean	CRWC will recruit, host and promote weekly clean up in the watershed. Recruitment of volunteers is targeted to commerical, industrial and corporate partners.	YES	Citizens including the general public and corporate employees/volunteers	x	x	x							x	x	33-34 weeks a year	CRWC	Host weekly events beginning in April through the third week of November, with a total volunteer count of 375 and approximately 3,000 lbs of trash removed annually.
A-G, I,J	School Program - Clinton River Water Festival at Oakland University	Participate in the Clinton River Water Festival at Oakland University, providing staff for event planning, registration, volunteer guiding, and presentations at the festival. CRWC and Oakland County representatives serve on the planning committee that meets a minimum of 5 times annually. This water festival educates students in the Oakland County portion of the Clinton River watershed.	YES	4th-5th grade students, teachers; corporate volunteers	x	x	x	x	x	x	x		x	x	Annually in May	Oakland CRWC	Maintain a level of 1100 students per year plus 150 adults chaperones and teachers and 100 volunteers.	

A-G, I,J	School Program - Lake St. Clair Water Festival at Macomb Community College	Participate in the Lake St. Clair Water Festival, providing staff for event planning, registration, volunteer guiding, and presentations at the festival. CRWC and Macomb County Public Works representatives serve on the planning committee that meets a minimum of 10 times annually. This water festival educates students in the the Clinton River, Lake. St. Clair, and Anchor Bay (sub)watersheds.	YES	4th-5th grade students,teachers; corporate volunteers	x	x	x	x	x	x	x	x	x	x	Annually in May	Macomb CRWC	Maintain a level of 1500 participants.
A-J	Stormwater Management Forum	CRWC will plan, promote, and host quarterly stormwater management forums. These forums bring decision makers and stakeholders within our watershed together to share information and discuss relevant topics in stormwater management.	YES	County and Municipal Employees, NGO/NPO employees, MS4 permittees, City Councils, engineers, city planners, public works operators, industrial and commercial facilities management and employees.	x	x	x	x	x	x	x	x	x	x	Quarterly	CRWC	Quarterly forums, at least 1 presenter at each forum with a minimum of 15 attendees.
A-K	Stormwater Education: Community Presentations and Workshops	Presentation on watersheds, stormwater pollution, green infrastructure, and lifestyle practices that preserve and protect water resources. (CRWC will host a minimum of 2 in each subwatershed.) Topics will vary and will be based on host subwatershed requests. CRWC will communicate with webmasters and communication staff of the MS4 permittees community to ensure promotion of events.	YES	Citizens including the general public and county and municipal employees	x	x	x	x	x	x	x	x	x	x	Annually	CRWC	Minimum 14 per year (2 per subwatershed). Attendance is tracked via sign-in sheets and submitted in the biennial report.
A,B,C,J	Adopt-A-Stream Training Workshops	Adopt A Stream training includes one 3-hour workshop on watersheds, stormwater pollution, watershed friendly practices, and training in volunteer monitoring procedures including macroinvertebrate collection and physical assessment. (Minimum of one 3 hr workshop per subwatershed) Bug Identification Workshops are also held to ensure that each team has at least one bug certified member.	YES	Citizens including the general public and county and municipal employees	x	x	x						x		Continuous	CRWC	Minimum 7 AAS trainings annually (1 per subwatershed). Minimum 2 Bug ID trainings annually.
A,B,C,J	Adopt-A-Stream Volunteer Water Quality Monitoring Program	Coordination of volunteer monitoring teams at pre-selected sites.	YES	Citizens including the general public and county and municipal employees	x	x	x						x		Biannually	CRWC	Monitor a minimum of 35 locations, with a minimum of 100 volunteers on the first Saturday in May and the first Saturday in October.

A-K	Subwatershed Website	Hosted by CRWC website; features subwatershed map, photos, description, events and links to education resources.	YES	Citizens including the general public and county and municipal employees	x	x	x	x	x	x	x	x	x	x	x	Continuous	CRWC	Continue to maintain page and update information and verify participating communities links to this website. Website admin (CRWC) can view number of website hits and will submit in biennial report.
A-C,E,F,I,J	Stream Leaders Student River Monitoring Program	The mission of the Stream Leaders program is to raise young people's awareness of the importance of water quality; and to help cultivate a connection to a Great Lakes stewardship identity. This is accomplished through a multidisciplinary, place-based initiative that provides students with an educational experience in water quality monitoring, data interpretation, and citizen action. Students and teachers perform biological, physical, and chemical stream monitoring assessments. They then interpret and analyze stream data and submit it to CRWC to corroborate.	YES	K-12th grade students, teachers and chaperones	x	x	x		x	x			x	x	Program is continuous; Actual monitoring events in April/May and October.	CRWC	Retain participation of a minimum of 3,100 students and 20 schools per year, weather permitting.	
A, D-F, H-J	RiverSafe LakeSafe	Educational outreach survey tool offering homeowners the opportunity to become certified "RiverSafe LakeSafe" by CRWC if they commit to the series of household water quality BMPs at home that reduce stormwater pollution and protect local fresh surface waters. Encourage MS4 permit communities to become certified and promote through City Council, beautification boards, planning committees, or other local committees.	YES	Home/Property owners	x			x	x	x		x	x	x	Continuous	CRWC	add a minimum of 10 new certifications a year	
I-K	WaterTowns	CRWC's place making initiative focused on connecting communities to their waterways through education, green infrastructure, history, art and ecology. Municipalities are equipped with complete shovel ready green infrastructure project designs custom for their community and are given the opportunity to implement a GI project, providing an educational opportunity for the public to get involved through native plantings, educational signage, etc.	YES	Municipal Employees, property developers, general public									x	x	Continuous	CRWC	bring on a minimum of 2 new communities a year to the WaterTowns program	

I-K	Stormwater Education: Industrial and Commercial Facilities	Provide educational materials and BMP fact sheets to industrial and commercial facilities. Target 2 industrial/commercial sectors per year. Distribute BMP information via email that is created specifically for each sector.	YES	Employees and property owners at industrial and commercial facilities. Property developers, planners, engineers.	x														Macomb; Oakland; CRWC; MS4 Permittes	Target 2 sectors per year. Distribute BMP fact sheets through annual email blast to designated contact at each facility. Track distribution via list of businesses and emails sent.
I-K	Stormwater Education: Industrial and Commercial Facilities	Attend Regional Chamber of Commerce Networking events to build relationships with business owners and share information related to stormwater pollution prevention for business/industry.	YES	Employees and property owners at industrial and commercial facilities. Property developers, planners, engineers.	x														CRWC	Attend a minimum of 2 events annually.
A-K	Social Media Outreach	Use social media platforms (Facebook, Twitter, Instagram) to collaborate among partners for cross promotion of events, fundraisers, news, education, and community announcements.	YES	Citizens including the general public and county and municipal employees	x	x	x	x	x	x	x	x	x	x	x	x	x		CRWC	Track total monthly response and interactions such as likes, comments, and shares on Facebook, likes, responses, and retweets on Twitter, and likes on Instagram.
Macomb County Specific Activities																				
A-K	Public Works Presentations	Presentations are offered to school and adult groups. These presentations educate citizens on pollution prevention in our waterways in order to improve the quality of life and promote economic prosperity with clean water.	YES	General Public in Macomb County	x	x	x	x	x	x	x	x	x	x	x	x			Macomb	30 presentations per year
A-D,K	Clean Boating	Inform and promote clean boating practices with including pollution prevention, spill notification and invasive species control	YES	General Public	x	x	x	x											Macomb	Meet with local boating association once a year and hand out 50 flyers promoting current pollution prevention initiatives.
A,K	MSU Extension Understanding Groundwater	This presentation targets 4th through 6th graders. Using a groundwater model and hands on activities, students review basic water knowledge, learn what groundwater is, the surface/groundwater connection and the importance of protecting and conserving groundwater resources.	YES	Elementary students and educators	x														Macomb	Participation is tracked, based on school requests for the program and availability of staff
A-D, G,H,K	MSU Extension Water Conservation Program	Designed for 1st through 3rd graders. The children explore water conservation topics such as where water comes from, how to use water wisely, and how to protect and conserve this precious resource.	YES	Elementary students and educators	x	x	x	x											Macomb	100 classroom presentations per year

A,E,F,I,K	MSU Extension Master Gardener Program	The Michigan State University Extension Master Gardener Program is an adult horticulture education and volunteer leader training program. Volunteers are committed to improving the quality of life in Michigan through horticulture-based volunteerism and beautifying communities throughout the state.	YES	Citizens	x				x	x			x	x	Annually	Macomb	50 active volunteers providing 2,000 hours of volunteer service.
A,E,F,I,K	MSU Extension Master Composter Program	The Master Composter course instructs residents about yard waste composting and reduction. This shows the importance of improving your yard at little cost, with little odor or attracting critters, and teaches how to reduce waste that must be disposed. This program gives correct knowledge that can be shared through volunteer activities.	YES	General Public	x				x	x			x	x	Annually	Macomb	5 active volunteers providing 100 hours of volunteer service.
A-C, E,F,J,K	MSU Extension Sea Grant Summer Discovery Cruises	Summer Discovery Cruises offer anyone interested in exploring Lake Erie, the Detroit River and Lake St. Clair the opportunity to get out on the water for an education experience.	YES	General Public	x	x	x		x	x			x	x	Seasonally	Macomb	250 participants per year
A,E,F,K	MSU Extension 4-H Environmental and Outdoor Education	Programs focus on teaching environmental responsibility and stewardship. This 4-H program area provides educational opportunities for youth to enjoy the outdoors and learn about the interconnection of people and nature.	YES	Youth	x				x	x				x	Annually	Macomb	1,000 youth per year mentored and educated by 100 adult and teen volunteers to deliver their programs.
A-K	MSU Extension Public Education Classes	Homeowner classes on environmentally safe maintenance	YES	General Public	x	x	x	x	x	x	x	x	x	x	Annually	Macomb	25 attendees per year
A-K	Facility Tours	On-site tours of Macomb County facilities are available relating to environmental impacts to the Clinton River and Lake St. Clair. Tours focus on what the county is doing to improve our water resources and to educate the public on how they can help.	YES	General Public	x	x	x	x	x	x	x	x	x	x	Annually	Macomb	Engage 20 participants per year.
A,B,C,G	Household Hazardous Waste Collection	The Macomb County Health Department sponsors hazardous waste collection drop-off sites for proper disposal. This includes fluorescent bulbs, used oil & oil filters, mercury thermometers, PCBs, etc.	YES	Macomb County Residents	x	x	x				x				Annually	Macomb	Host six events per year and a collection goal of 100,000 pounds of waste from participating residents

A,G	Medication Disposal	Low concentrations of prescription drugs, including opiates, and over the counter medications have been detected in the drinking water supplies of 24 major metropolitan areas throughout the country, including Detroit. Contributing to the problem is the disposal dilemma faced by residents who want to safely dispose of unwanted medications without flushing them down the drain. The Macomb County Health Department is partnering with local pharmacies to accept unwanted and expired medications.	YES	General Public	x											Annually	Macomb	Collect 1,000 pounds of unwanted medication annually. Data is collected from sheriff's department.
A,I-K	The Blue Economy Initiative	Macomb County's Blue Economy Initiative is designed to protect and enhance Macomb County's assets, Lake St. Clair and the Clinton River Watershed. Its objectives are to increase public access and cultivate investment while maintaining high standards for environmental stewardship.	YES	General Public	x											Annually	Macomb	Annually host a lake event.
	Lake St. Clair Initiative Circle the Lake Tour	Macomb County Planning and Economic Development created this public/private, non-profit association to increase the awareness, protect, and develop the rich and diverse assets on and around this fresh water community.	YES	General Public	x											Annually	Macomb	Distribute 500 maps through municipalities and tourism events.
A,J	Clinton River Blue Way Water Trail	Macomb Count created a Blue Way Water Trail to increase awareness of the natural assets the county possesses and create opportunities to publicize and increase access to the Clinton River.	YES	General Public	x											Annually	Macomb	Distribute 200 water trail maps through the CRWC.
A,E,J	Phragmites Invasive Removal	The intent of the project is to protect coastal marshes (wetlands) within the St. Clair watershed through the control of common reed, or phragmites. Treatment includes aerial and ground application of herbicide, followed by either prescribed burning or mowing.	YES	General Public	x											Seasonally	Macomb	Attend 4 CISMA meetings per year.
A,B,J	Spill Awareness	Macomb County will promote a citizens awareness program for spill response and how to notify proper authorities for clean up if necessary.	YES	Homeowners, visitors, and business owners within Macomb	x	x										Annually	Macomb	Attend 1 Emergency Response meeting a year to update and report procedures.
A-K	Bulletin Boards/ Displays	Bulletin boards in the designated county buildings on clean water topics. Other related information is posted and/or materials are placed for public/county employees to take. Display booths at county events and other events as requested.	YES	General public, Macomb County employees	x	x	x	x	x	x	x	x	x			Quarterly	Macomb	flyers and topics to be rotated at least 4 times per year. Materials are counted before and after each event

A-C, G, I, J	Macomb County Social Media Sites	All the nested Macomb County departments keep the Macomb County communities informed on the many projects, services provided, and highlights some of the ongoing projects and services going on in the county through various forms of social media. These resources also provide updates about events and education the citizens can participate in around the county. The main county website is: http://www.macombgov.org/ .	YES	General public, Macomb County employees	x	x	x									Updated on a regular basis	Macomb	Provide working links to websites and pages. Track hits on websites and social media pages
A-K	Publications	Publicize environmental stewardship, pollution prevention, best management practices and other relevant environmental activities to Macomb County staff, the general public and business/industry	YES	General public, Macomb County employees	x	x	x	x	x	x	x	x	x	x	x	Annually	Macomb	distribute at least 150 publications through direct mailing or email each year
A-K	Riparian Information	Make available riparian landowner educational materials at events, meetings, and through mailings.	YES	General Public, Riparian Landowners	x	x	x	x	x	x	x	x	x	x	x	Annually	Macomb	Educate at least 12 riparian residents a year through inquiries.
Macomb County NON-REQUIRED Activities																		
A,B,G,K	Board of Commissioners Earth Day Contest	Macomb County will promote and sponsor an Earth Day contest for 4th & 5th grade students in the county.	YES	Elementary students	x	x										Annually	Macomb	Have at least 10 participants per year.
A,B,E,F,I<K	Green Macomb	The Macomb County Department of Planning & Economic Development is developing a new initiative to support green infrastructure efforts that strengthen the economic vitality, quality of life, and environmental wellbeing for those visiting, living, and working in Macomb County.	YES	General Public	x	x			x	x						Annually	Macomb	Plant 50 trees a year and attend one event per year.
A,J	HEART Freshwater Center	The HEART Freshwater Center is a unique alliance of agencies working together to study the Huron to Erie Corridor through research, education and training. The purpose of this research is to improve the ecosystems of these water bodies and the quality of life for the people who use them.	YES	General Public	x											Annually	Macomb	Work with lab two times a year on water quality event/testing.
Oakland County Specific Activities																		

A-C, G, I-K	Regional Stormwater Summit	This annual event, which debuted in 2013, features presentations on stormwater and watershed initiatives in the southeast Michigan and the Great Lakes region that are relevant in helping communities work together and gain insight into addressing the region's stormwater and watershed management challenges.	YES	Citizens including the general public and county and municipal employees	x	x	x									Annually in the Fall (September/October)	Oakland	Maintain a minimum 100 participants annually from southeast MI
A-K	Bulletin Boards	Bulletin boards in the WRC Public Works Building main lobby and framed posters in the vestibule of the WRC Water and Sewer Billing Office in Waterford are posted with information developed by the Southeast Michigan Partners for Clean Water on the "Seven Simple Steps to Clean Water" topics. Other related information is posted and/or materials are placed on the front desk of the Public Works Building main lobby for the public/county employees to take.	YES	General public, CVTs, county employees within Oakland County	x	x	x	x	x	x	x	x	x	x		Monthly	Oakland	Topics posted are tracked in an excel spreadsheet available upon request. Topics posted will be reported annually
A-C E-G, I	Dirt Doctors Program	The Dirt Doctors Program is an interactive program facilitated by WRC staff geared towards 4th and 5th grade students and teaches youth about how individual actions affect our waterways. The program focuses on the importance of soil erosion prevention and watershed stewardship.	YES	Oakland County 4th-12th grade students, teachers and chaperones	x	x	x		x	x	x					Annually	Oakland	Minimum of 25 programs annually
A-C, H	Drain Detectives Program	The Drain Detectives Program is an interactive program facilitated by WRC staff geared towards 4th through 12th grade students. It teaches students how pollution can get into our waterways, what to look for, how to detect it and how to trace the source of the pollution. Students learn how they can help prevent pollution and how to report pollution incidents through Oakland County's 24-Hour Pollution Hotline. Students also learn how water and pollution travel through the watershed.	YES	Oakland County 4th-12th grade students, teachers and chaperones	x	x	x						x			Annually	Oakland	Minimum of 5 programs over the permit cycle
A-J	Enviroscape Watershed Model Program	The Enviroscape watershed model teaches students about watersheds and how individual actions affect our waterways, as well as how pollution moves throughout a watershed. Students are taught how to prevent pollution through everyday actions. The model is programming is facilitated by WRC staff The Enviroscape is also made available to the public to borrow for presentations.	YES	General public, Oakland County students	x	x	x	x	x	x	x	x	x			Annually	Oakland	Minimum of 10 programs annually

A-C, G, I, J	E-newsletter Articles	<p>WRC releases an electronic newsletter to the public, CVTs, elected officials and county employees on a quarterly basis (the E-newsletter has taken the place of the WRC Watermark newsletter). This newsletter keeps Oakland County communities informed on the many projects and services provided by the WRC and highlights some of the WRC's ongoing projects and services. It also provides updates about the evolving role of the WRC office.</p>	YES	General public, CVTs, elected officials, and county employees in Oakland County	x	x	x										Published quarterly	Oakland	Minimum of 4 newsletters annually
A-K	Household Hazardous Waste Information	<p>Continue to publicize information on the NO HAZ, Resource Recovery and Recycling Authority of Southwest Oakland County (RRRASOC) and Southeastern Oakland County Resource Recovery Authority (SOCRRA) programs to citizens and employees of Oakland County on WRMD's Web site (www.oakgov.com/waste/nohaz). NO HAZ, RRRASOC and SOCRRA provide safe disposal of household hazardous waste to Oakland County municipalities to the maximum extent practicable (as budget allows). The WRC will continue to distribute HHW brochures.</p> <p>WRC also provides an ad on household hazardous waste disposal in the Oakland Lakefront magazine and has information in its Waterfront Wisdom publication and on their Web site at www.oakgov.com/riparian.</p>	YES	Residents	x												Annually	Oakland	<p>Maintain working links to Web sites and track number of website hits annually</p> <p>Hold a minimum of four collection events per year</p> <p>Collect and properly dispose of a minimum of 200,000 pounds of household hazardous waste per year</p>
A-K	Kids' Clean Water Calendar Contest	<p>The Kids' Clean Water Calendar contest is open to all 4th and 5th grade students in all schools within Oakland County. Themes for drawing entries surround the Seven Simple Steps to Clean Water campaign topics developed by SEMCOG. The contest promotes the students to learn about watershed stewardship and how our daily actions impact our waterways.</p>	YES	General public, Oakland County 4th and 5th grade students	x	x	x	x	x	x	x	x	x	x	x	x	Annually	Oakland	<p>Achieve participation of a minimum of 600 students per year</p> <p>Distribute a minimum of 5,000 calendars per year throughout Oakland County</p>

A, I, J	Natural Resources Education Program	Special programs are offered by Oakland County Parks and Recreation Commission (OCPRC) staff throughout the year which provide opportunities for the community to participate in ongoing stewardship efforts. Programs take place at the Oakland County Parks as well as other locations in Southeast Michigan. Stewardship opportunities are posted on OCPRC's Web site at: www.destinationoakland.com	YES	General public, visitors to the area	x													Annually	Oakland	Hold a minimum of 10 stewardship events per year with participation from a minimum of 200 individuals per year
A-K	Oakland County Environmental Stewardship and Water Resource Web sites	WRC, Oakland County Planning and Economic Development Services (OCPEDS), Road Commission of Oakland County (RCOC), OCPRC and MSU-Extension Oakland County maintain environmental stewardship and/or water resource information on their Web sites at: www.oakgov.com/es , www.oakgov.com/riparian , https://www.oakgov.com/parks/getinvolved/Pages/Natural-Resource-Management.aspx , http://www.rcocweb.org/Environmental/Environmental.aspx , and http://www.oakgov.com/msu/ . Information will also be provided via the Be Phosphorus Smart! Web site, which is a portal to information on phosphorus and its role in and impacts on crops, turf and lawn care, and stormwater (http://www.bephosphorusmart.msu.edu/)	YES	General public, CVTs, county employees	x	x	x	x	x	x	x	x	x	x	x	x	x	Annually	Oakland MSUE Oakland	Provide working links to Web sites and track number of website hits annually
A	Oakland Lakefront Magazine Advertisements	Public education messages are placed in the Oakland Lakefront magazine. The messages include pet care, fertilizers, household hazardous waste disposal, earth-friendly landscaping, car care and storm drain awareness. Oakland Lakefront is published monthly and reaches approximately 17,000 homeowners on the waterways of Oakland County.	YES	General public, riparian landowners	x	x	x	x	x	x	x	x	x	x	x	x	x	April through September	Oakland	Place six (6) ads per year Reach a minimum of 13,000 lakefront residents per ad per year
A-K	Publicize Environmental-Related Events	Publicize environmental stewardship and other relevant environmental activities to WRC staff and the general public through in-house bulletin boards in WRC lobby. Oakland County also has a Web portal where this information is available at: https://www.oakgov.com/parks/getinvolved/Pages/Natural-Resource-Management.aspx	YES	General Public, visitors to the area, WRC staff	x													Annually	Oakland	Publicize a minimum of 20 natural-resource related events per year Maintain working links to Web sites and track number of website hits annually

G	Recreational Vehicle Waste Dumpsites	Post links and/or locations to recreational vehicle (RV) waste dumpsites in the region on Southeast Michigan Council of Government's (SEMCOG) Ours to Protect Web site at: www.semco.org/OursToProtect_HouseholdWaste.aspx and provide a link to Michigan RV dump sites (www.rvdumps.com/mi.htm) on Oakland County Waste Resource Management Division's Web site at: www.oakgov.com/waste/ .	YES	Residents, visitors to the area													Annually	Oakland	Provide working links to Web sites and track number of website hits annually to Oakland County's Waste and Recycling Resources page will be tracked annually
A-K	Riparian Information Distribution	Distribute riparian landowner educational material (i.e. Waterfront Wisdom brochure) at events, meetings, and through mailings. Maintain WRC's riparian education Web site (www.oakgov.com/riparian)	YES	General Public, Riparian Landowners	x	x	x	x	x	x	x	x	x	x	x	x	Annually	Oakland	Maintain working links to Web sites and track number of website hits annually Distribute a minimum of 100 Waterfront Wisdom booklets per year
A, G	Solid Waste Plan	Continue to implement Oakland County's Solid Waste Plan which establishes an enforceable program and processes that when implemented will minimize future adverse impacts upon public health, the environment and the landscape as a result of the generation, handling, processing and disposal of Act 451, Part 115 non-hazardous solid wastes.	YES	Residents	x							x					Annually	Oakland	Provide working link to Web site and track number of website hits annually
A-K	Inland Lake Natural Shoreline/Education Program	The MDEQ and MSU-Extension has spearheaded the development of the Michigan Natural Shoreline Partnership (MNSP). Each year, education and outreach is provided to inland lake homeowners and shoreline landscape contractors on the following topics: the importance of natural shoreline landscapes on Michigan's inland lakes, healthy lake ecosystems, understanding the shoreline, shoreline invasive plants, planning a natural shoreline landscape, design ideas for a natural shoreline landscape, plant selection, planting stock and site preparation, natural shoreline success, and Michigan rules and regulations. In Oakland County, a partnership has formed between the WRC, MSU-Extension, OCPRC, Clinton River Watershed Council, Wild Ones, Oakland Conservation District and MDEQ to offer programming locally.	YES	General Public, Riparian Landowners	x	x	x	x	x	x	x	x	x	x	x	x	Annually	Oakland	Report annually: -Number of programs held -Number of attendees -Workshop partners Host and participate in at least one program annually in Oakland County

	Operation Medicine Cabinet	The Oakland County Sheriff's Office launched "Operation Medicine Cabinet" in July of 2009 to provide citizens a venue to properly dispose of expired and/or unused prescriptions at several different locations throughout Oakland County. This program helps to reduce the environmental impacts of prescription drugs in our waterways that can have detrimental effects on fish, frogs and other aquatic life. Additional information is available at: www.operationmedicinecabinetmi.com		General public														OC Sherriff's office and participating CVT's	Maintain a minimum of 30 participating CVTs in the program. Maintain working links to website and track number of website hits annually Report on the number and location of participating CVTs
	Community Specific Activities	These items are to be reported by the communities in the SWMP. ALL items will be implemented by each community.																	
A-J	Presentations and Displays	Provide displays and presentations for water quality-related events upon request and availability of staff time display to public at least once in the next 5 years.		Citizens including the general public and county and municipal employees	x	x	x	x	x	x	x	x	x	x	x	Minimum of once during 5-year permit cycle		MS4 Permittees; CRWC	Host display once during permit cycle
A-K	Regional Public Education Materials	Distribute resources available from SEMCOG including: Seven Simple Steps to Clean Water brochures, tip cards and kids activity sheets. Topics include: fertilizer, car care, pet care, household hazardous waste disposal, earth-friendly landscaping, water conservation and storm drain awareness. Materials are avialable on the Ours to Protect Website. at http://www.semcog.org/ourstoprotect.aspx		Citizens including the general public and county and municipal employees	x	x	x	x	x	x	x	x	x	x	Annually		MS4 Permittees; CRWC	Distribute educational materials (pamphlets, brochures, tip cards) on request from MS4 permit communities, on various topics at community facilities and events. MS4 communities have an excel spreadsheet to track distribution.	
A-K	Subwatershed Website	Hosted by CRWC website; features subwatershed map, photos, description, events and links to education resources. MS4 permittees will provide links to the CRWC website of their own websites.		Citizens including the general public and county and municipal employees	x	x	x	x	x	x	x	x	x	x	Continuous		MS4 Permittees; CRWC	Provide working links to Web sites. MS4 permit communities have an excel document to track link locations and website hits.	
A-K	Community Information	Write or distribute articles about watersheds, green infrastructure, watershed friendly practices for homeowners, and other stormwater pollution related topics for publication into existing municipal newsletters, enewsletters and websites; Four articles per year will be given to MS4 permittees from CRWC for publication in newsletters and other publications. MS4 permittees will distribute these article to the public each year via print or digital media.		Citizens including the general public and county and municipal employees	x	x	x	x	x	x	x	x	x	x	Annually		MS4 Permittees; CRWC	Publish via print or digital media 4 articles per year.	

A,C,G	Household Hazardous Waste Information	<p>Continue to publicize information on the NO HAZ, Resource Recovery and Recycling Authority of Southwest Oakland County (RRRASOC) and Southeastern Oakland County Resource Recovery Authority (SOCRRA) programs to citizens and employees of Oakland County on WRMD's Web site (www.oakgov.com/waste/nohaz). NO HAZ, RRRASOC and SOCRRA provide safe disposal of household hazardous waste to Oakland County municipalities to the maximum extent practicable (as budget allows). Oakland County MS4 permittees will also promote.</p> <p>The WRC will continue to distribute HHW brochures.</p> <p>WRC also provides an ad on household hazardous waste disposal in the Oakland Lakefront magazine and has information in its Waterfront Wisdom publication and on their Web site at www.oakgov.com/riparian.</p>		Residents	x		x				x					Continuous	MS4 Permittees	Provide working links to websites. MS4 permit communities have an excel document to track link locations and website hits.
A,G	Recreational Vehicle Waste Dumpsites	<p>Post links and/or locations to recreational vehicle (RV) waste dumpsites in the region on Southeast Michigan Council of Government's (SEMCOG) Ours to Protect Web site at: www.semco.org/OursToProtect_HouseholdWaste.aspx or provide a link to Michigan RV dump sites (www.rvdumps.com/mi.htm) on Oakland County Waste Resource Management Division's Web site at: www.oakgov.com/waste/. MS4 may add this to thier SWMP</p>		Residents, visitors to the area	x						x					Continuous	MS4 Permittees	Provide working links to websites and track number of hits. MS4 permit communities have an excel document to track link locations and website hits.
A-J	Riparian Information Distribution	<p>Distribute riparian landowner educational material (i.e. Waterfront Wisdom brochure) make available to their public via mailings or through their website. events, meetings, and through mailings. MS4 may add this to thier SWMP</p> <p>Maintain WRC's riparian education Web site (www.oakgov.com/riparian)</p>		General Public, Riparian Landowners	x	x	x	x	x	x	x	x	x	x	x	Continuous	MS4 Permittees	Provide working link to website and track number of hits. MS4 permit communities have an excel document to track link locations and website hits.

APPENDIX B

Community Tracking Spreadsheet

Contents

Community Tracking Spreadsheet

APPENDIX C

Letters of Commitment

Contents

Macomb County Public Works Office Letter

Oakland County Water Resources Commissioner Letter

Michigan State University Extension Letter



Candice S. Miller

Public Works Commissioner
Macomb County

March 15, 2023

Lishba Varughese
Christine Caddick
EGLE-Water Resources Division
Southeast Michigan District Office
27700 Donald Court
Warren, MI 48093

RE: Watershed-wide Public Education Plan Submittal for the Clinton River Watershed

Dear Lishba Varughese & Christine Caddick:

The Macomb County Public Works Office is writing to affirm its commitment to assist communities in implementing the collaborative Public Education Plan (PEP) that has been developed for the storm water permit holders within the Clinton River Watershed.

The Macomb County Public Works Office understands that the PEP is a requirement of the National Pollutant Discharge Elimination System (NPDES) permit administered by the Michigan Department of Environmental Quality. The permit regulates stormwater discharges from municipal separate storm sewer systems, in compliance with the provisions of the Federal Water Pollution Control Act (Clean Water Act), as amended (33 U.S.C. 1251 et seq), and Michigan Act 451, Public Acts of 1994, as amended, Parts 31 and 41.

The Macomb County Public Works Office is included as a responsible party for the implementation of a variety of actions in the PEP because many of our activities and programs offer excellent opportunities for engaging the public in watershed education and environmental stewardship.

If you have any questions, please feel free to contact Jeff Bednar, Environmental Resources Manager, at jeff.bednar@macombgov.org or (586)493-0685.

Sincerely,

A handwritten signature in black ink that reads "Candice S. Miller".

Candice S. Miller, Commissioner
Macomb County Public Works

March 7, 2023

Ms. Lishba Varughese
Ms. Christine Caddick
EGLE – Water Resources Division
Southeast Michigan District Office
27700 Donald Court
Warren, MI 48093

RE: Watershed-wide Public Education Plan Submittal for the Clinton River Watershed

Dear Ms. Varughese and Ms. Caddick:

The Oakland County Water Resources Commissioner's Office (WRC) is writing to affirm its commitment to assist communities in implementing the collaborative Public Education Plan (PEP) that has been developed for the stormwater permit holders within the Clinton River Watershed.

The WRC recognizes that the PEP is a requirement of the National Pollutant Discharge Elimination System (NPDES) administered by the Michigan Department of Environment, Great Lakes and Energy (EGLE). The permit regulates stormwater discharges from municipal separate storm sewer systems, in compliance with the provisions of the Federal Water Pollution Control Act (Clean Water Act), as amended (33 U.S.C. 1251 et seq), and Michigan Act 451, Public Acts of 1994, as amended, Parts 31 and 41.

Oakland County is included as a responsible party for the implementation of a variety of actions in the PEP because many of our activities and programs offer excellent opportunities for engaging the public in watershed education and environmental stewardship.

If you have any questions, please feel free to contact me at 248-858-5264.

Sincerely,



Jacy L. Garrison
Environmental Planner

March 21, 2023

Ms. Kaleigh Snoddy
Clinton River Watershed Council
1115 W Avon Rd.
Rochester Hills, MI 48309

Re: Clinton River Watershed Collaborative Public Education Plan

Dear Ms. Snoddy,

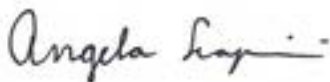
The Michigan State University (MSU) Extension assists communities in water related education programs that can be helpful in implementing the collaborative Public Education Plan (PEP) that has been developed for the stormwater permit holders within the Clinton River Watershed.

MSU Extension recognizes that the PEP is a requirement of the National Pollutant Discharge Elimination System (NPDES) administered by the Michigan Department of Environmental Quality. The permit regulates stormwater discharges from municipal separate stormwater sewer systems, in compliance with the provisions of the Federal Water Pollution Control Act (Clean Water Act), as amended (33 U.S.C. 1251 et seq), and Michigan Act 451, Public Acts of 1994, as amended, Parts 31 and 41.

MSU Extension is included as a responsible party for the implementation of a variety of actions in the PEP because many of our activities and programs offer excellent opportunities for engaging the public in watershed education and environmental stewardship. Furthermore, the programming and resources offered are science-based and delivered through a collaboration of academic staff, specialists, and faculty from Michigan State University in partnership with local organizations and agencies. When possible, programming is offered as both classroom and field-based learning opportunities, and is tailored to meet the specific areas of interest and needs of the target audience. These programs may include the Water Conservation Program, Summer Discovery Cruises, and Michigan Conservation Stewards Program.

If you have any questions, please feel free to contact me at (586) 469-5060 or scapinia@msu.edu.

Sincerely,



Angela Scapini
Extension Program Worker
Michigan Sea Grant, MSU Extension



Heather Triezenberg
Associate Director & Program Leader
Michigan Sea Grant, MSU Extension

Cc: Ed Scott, District 11 Director, MSU Extension
Dave Ivan, Director, Community, Food, and Environment Institute, MSU Extension

APPENDIX D

Educational Outreach Materials

Contents

4 Commercial BMP Fact Sheets

38 Other BMP Fact Sheets/articles distributed



CRWC

CLINTON RIVER WATERSHED COUNCIL



COAL TAR SEALANT HARMFUL TO THE ENVIRONMENT & HUMAN HEALTH

When rain falls and snow melts, the runoff produced picks up a variety of contaminants such as oil, metals, salts, pet waste, fertilizer, and grass clippings as it flows over roofs, roadways, sidewalks and lawns.

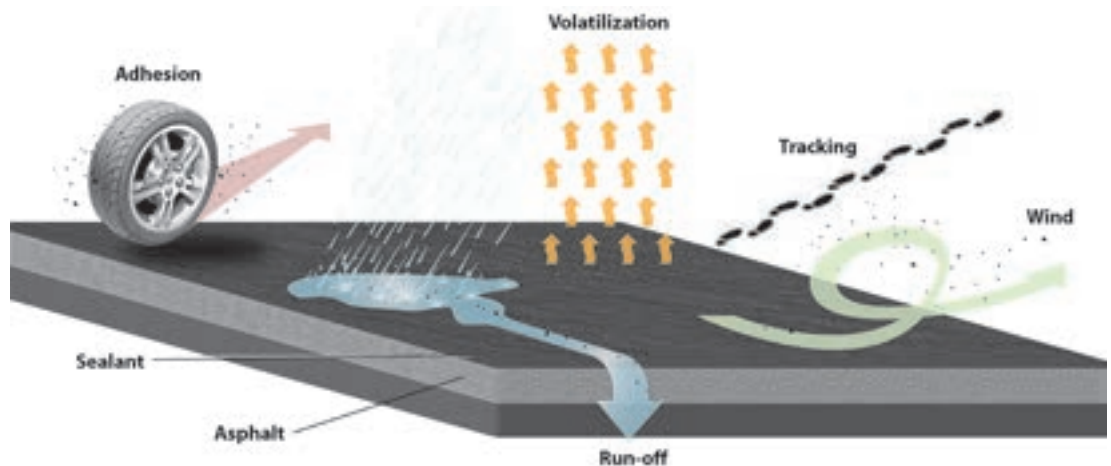
Stormwater runoff ultimately flows into storm drains.

Remember: storm drains lead directly to our local rivers and streams.

Coal tar sealant is applied to asphalt to seal the surface and prevent damage from everyday wear and tear. Coal tar sealant contains Polycyclic Aromatic Hydrocarbons (PAHs), which are known to be human carcinogens (cancer causing).

HOW DOES COAL TAR SEALANT GET INTO THE ENVIRONMENT?

Coal tar sealant particles containing PAHs can be spread in many ways. Particles can also be blown into the air by the wind, tracked indoors on the bottoms of shoes, and also stick to the bottoms of tires on cars and carried as we drive. Coal Tar enters local water sources through stormwater runoff. In warm weather, toxic PAH particles are released from the sealant into the air we breathe.



Original graphic courtesy of Aaron Hicks, City of Austin, Tex.

WHAT CAN I DO?

- Avoid using coal tar sealant whenever possible!
- Seek alternatives such as asphalt-based materials which contain lower concentrations of PAHs. Some local companies are currently using these options.
- Be proactive when talking about coal tar sealant as an environmental and health issue. Some cities and townships within the Clinton River Watershed have already banned all sealants that have a PAH concentration above 0.1%.

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CONCRETE WASHOUT BEST MANAGEMENT PRACTICES

When rain falls and snow melts, the runoff produced picks up a variety of contaminants such as oil, metals, salts, pet waste, fertilizer, and grass clippings as it flows over roofs, roadways, sidewalks and lawns.

Stormwater runoff ultimately flows into storm drains.

Remember: storm drains lead directly to our local rivers and streams.

WHAT IS CONCRETE WASHOUT?

Concrete washout water is the water that is leftover after cement work is done and the equipment has been cleaned up with water. Equipment that is commonly washed out after cement work includes: the drum from the concrete truck, the chutes and hoppers, wheelbarrows and hand tools. This wash water contains toxic metals and has a pH value near 12, making it very caustic and corrosive.

BEST MANAGEMENT PRACTICES (BMP):

Behaviors and practices used by individuals to prevent or reduce stormwater pollution impacts.



Daniel X. O'Neil

In order to minimize or eliminate the discharge of concrete waste materials into the storm drains, it is important to follow proper procedures and practices.

BEST MANAGEMENT OBJECTIVES:

1. When cleaning equipment, operators must retain all concrete wash water and solids in approved containers with leak proof designs so the wash water does not reach storm drains or soil surfaces that could runoff into local waterways or groundwater.
2. Collect 100% of concrete wash water and solids and recycle them to prevent materials from ending up in a landfill.



Silt Management Supplies, LLC.

Making sure all of the concrete equipment is cleaned out properly prevents the concrete washout from leaking into nearby surfaces. This prevents wash water from entering the waterways which can cause pollution problems in surface waters and the soil.

For more information and guidance on handling concrete washout:

- www.nrmca.org/operations/ENVIRONMENT/Courses_environmental.html
- www.epa.gov/npdes/pubs/concretewashout.pdf

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MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

This project has been funded wholly or in part through Michigan Department of Environment, Great Lakes, and Energy's Nonpoint Source Program using Watershed Council Support funds.



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CLEAN BOATING PRACTICES



NO SPILLS AT THE PUMP

Use an absorbent bib or collar, available at most boating shops, to collect any spills during refueling. Wipe up any drips from re-fueling. The Coast Guard recommends filling tanks to 90% to allow for expansion due to heat, and to prevent overfills.



DEALING WITH SPILLS

Immediately report any spills to the marina. In open waters, call the U.S. Coast Guard National Response Center (1-800-424-8802). Never use dish soap or detergent to break up a spill, as that just disperses the oil or gas, making it harder to collect. Spill responses will vary depending on location, material, and amount spilled.



BLACK WATER

This is the sewage from your on-board bathroom. While there are various systems available, dumping them directly into the lake is always illegal. Systems should be checked for leaks and manufacturer's guidelines must be followed.



GRAY WATER

Untreated water from your onboard sinks and showers, and the wastewater from cleaning your boat with detergents is a major pollutant of the marine environment. Use care to prevent gray water from impacting your local waters and wildlife.



WASTE DISPOSAL

Marine debris not only harms important habitats and wildlife, but also can cause damage to your boat. Prevent waste from entering our waterways by: reducing, reusing and recycling. Remember to take everything you bring on the water, off the water.



CLEAN WATER

Remember, eventually all the water poured down drains will drain out into the Clinton River and Lake St. Clair. We can all do our part by being aware of our relationship to our fresh waters!

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MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

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When rain falls and snow melts, the runoff produced picks up a variety of contaminants such as oil, metals, salts, pet waste, fertilizer, and grass clippings as it flows over roofs, roadways, sidewalks and lawns.

Stormwater runoff ultimately flows into storm drains.

Remember: storm drains lead directly to our local rivers and streams.

HOW DOES THE FOOD SERVICE INDUSTRY CONTRIBUTE TO STORMWATER POLLUTION?

- Dumping mop wash water, rinsing mats & kitchen equipment outdoors or down a storm drain.
- Poor dumpster management.
- Improper management of FOGs.

BEST MANAGEMENT PRACTICES (BMP):

Behaviors and practices used by individuals and businesses to prevent or reduce stormwater pollution impacts.



FOGS

- Don't discharge Fats, Oils & Grease (FOG) down sink drains, sinks, or storm drains.



GARBAGE BINS

- Be sure garbage cans, dumpsters and grease collection bins are leak free, and covered when not in use.



WASTEWATER DISPOSAL

- Dispose of wastewater containing fats, oils or grease into a grease trap or interceptor.
- Maintain trap or interceptor.



EDUCATE STAFF

- Post educational materials for employees.
- Label all storm drains: "Dump No Waste, Flows to River."



PROPER WASHING

- Wash mats somewhere that drains to a sanitary sewer area. Do NOT wash mats or equipment outside.



GREASE DISPOSAL

- Pour cooled grease into a large garbage can or container. Once grease has solidified, dispose of it with regular garbage.

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AUTO CARE BEST MANAGEMENT PRACTICES (BMP'S)

When rain falls and snow melts, the runoff produced picks up a variety of contaminants such as oil, metals, salts, pet waste, fertilizer, and grass clippings as it flows over roofs, roadways, sidewalks and lawns. Stormwater runoff ultimately flows into storm drains.

Remember: storm drains lead directly to our local rivers and streams.

HOW DO AUTOMOTIVE REPAIR AND MAINTENANCE BUSINESSES CONTRIBUTE TO STORMWATER POLLUTION?

- Incorrect storage of used and new vehicle fluids.
- Spills and leaks from auto maintenance such as, oil, gasoline, chemicals, grease and paint.
- Improper cleaning of work sites.

BEST MANAGEMENT PRACTICES (BMP):

Behaviors and practices used by individuals and businesses to prevent or reduce stormwater pollution impacts.



CHEMICAL SPILLS

- Never hose gas, oil or other chemical spills down the drain.



CONTROL LITTER

- Be sure workspace and surrounding areas such as parking lots are free of litter, debris and scraps that could end up in storm drains.



SPILL KITS

- Be sure to have properly stocked spill kits on hand.



EDUCATE STAFF

- Teach staff proper handling, storage and disposal of supplies, proper use of a spill kit, and where storm drains are located on the property.



DRY MOP METHOD

- Use a dry mop to soak up spills or cover in sawdust or kitty litter and sweep it up once dry.



CHEMICAL DISPOSAL

- Practice proper disposal of chemicals and automotive fluids.

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MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

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When rain falls and snow melts, the runoff produced picks up a variety of contaminants such as oil, metals, salts, pet waste, fertilizer, and grass clippings as it flows over roofs, roadways, sidewalks and lawns. Stormwater runoff ultimately flows into storm drains.
Remember: storm drains lead directly to our local rivers and streams.

HOW DO COMMERCIAL CAR WASHES CONTRIBUTE TO STORMWATER POLLUTION?

- Runoff of toxic chemicals such as hydrofluoric acid, phosphates from detergents, lubricants and oil.
- Debris and sediments washed from vehicles.
- Litter.

BEST MANAGEMENT PRACTICES (BMP):

Behaviors and practices used by individuals and businesses to prevent or reduce stormwater pollution impacts.



CHEMICAL USE

- Use sparingly and don't allow chemicals, lubricants and oils to spill out of containers.



CONTROL LITTER

- Pick up any litter in and around the car wash to keep it from entering storm drains and nearby waterways.



ROUTINE MAINTENANCE

- If your car wash has a grit trap, have it cleaned regularly, with sludge properly handled and disposed of.



EDUCATE STAFF

- Check out the EPA's safer choice guide for products www.epa.gov/saferchoice/products



ECO FRIENDLY DETERGENT

- Use biodegradable, phosphate free, fragrance free and dye free detergents.



CHEMICAL DISPOSAL

- Properly dispose of unused chemicals.

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LANDSCAPING & LAWN CARE BEST MANAGEMENT PRACTICES (BMP'S)

When rain falls and snow melts, the runoff produced picks up a variety of contaminants such as oil, metals, salts, pet waste, fertilizer, and grass clippings as it flows over roofs, roadways, sidewalks and lawns.

Stormwater runoff ultimately flows into storm drains.

Remember: storm drains lead directly to our local rivers and streams.

HOW DOES LANDSCAPING AND LAWN CARE CONTRIBUTE TO STORMWATER POLLUTION?

- Fertilizer and pesticide applications impact the ecosystem.
- Gas, oil and lubricant leaks from lawn equipment can pollute runoff.
- Excessive and or misdirected watering leads to surface runoff.

BEST MANAGEMENT PRACTICES (BMP):

Behaviors and practices used by individuals and businesses to prevent or reduce stormwater pollution impacts.



SAVE WATER



Be sure sprinklers are not watering the cement and are turned off during rain events.



TEST



Always perform a soil test before fertilizer addition.



MULCH



Mulch leaves and grass clippings into the lawn to add nutrients and control weeds.



CLEAN UP



After fertilizer or pesticide application be sure to sweep any excess from sidewalks and driveways back onto the lawn, to keep chemicals out of storm drains.



GO NATIVE



Plant native plants, especially along shorelines and streambanks, to improve water quality.



MAINTENANCE



Be sure lawn equipment is properly maintained, running efficiently and not leaking.



MOW HIGH



Never cut more than 1/3 the height of grass. Leaving grass longer allows for strong root development and less room for weeds.

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PADDLING SAFETY TIPS

Recreating in your watershed

One of the ways to ensure the protection of our lakes, rivers and streams is to get out and enjoy them! Summer is a great time to explore your watershed, and with the popularity of recreating on the Clinton River and adjacent tributaries increasing each year, you don't want to be the last one on the river.

The paddling conditions on the Clinton River are changing constantly due to weather and other environmental factors, and several sections are better suited towards more experienced kayakers.

Before you decide to venture out on to the water, it is important to educate yourself on some of the dangers of the river, and make the necessary preparations.



Visit our website to check out our paddling map!

Use the legend on the left side of the map to turn data layers off or on that give information about locations to launch, canoe and kayak liveries, river difficulty, recommended fishing locations, and more. Check out the map here:

<http://www.crowc.org/paddling/>.



ALWAYS PADDLE WITH THE PROPER EQUIPMENT.

Life vests, helmets, a whistle, a first aid kit and a phone are standard equipment.



NEVER PADDLE ALONE.

Always paddle with at least one other person, and do not become separated. Let someone know where and when to expect your return, in case of an emergency.



BE AWARE OF STREAM FLOW.

Check stream flow at the USGS gauge nearest to your intended trip. Visually check stream flow before you embark; if the river is too fast for your comfort level, wait until water levels are lower.



BE AWARE OF THE WATER TEMPERATURE.

Cold water is extremely dangerous. Learn about protecting yourself from hypothermia.



BE AWARE OF THE WEATHER.

Conditions can change rapidly. Be aware of forecasts and do not go out during thunderstorms or other adverse weather events. Stay alert to changing weather conditions.



BE AWARE OF THE DAYLIGHT.

Make sure you have enough daylight to comfortably finish your trip.



BRING A SPARE CHANGE OF CLOTHES IN A DRY BAG.

It is very likely you will get wet. Bring a spare change of clothes in a dry bag to avoid hypothermia.



WEAR PROPER FOOTWEAR.

Protect your feet from sharp river rocks; always wear footwear.



KNOW HOW TO SWIM.

Make sure you know how to swim before embarking on a river trip.



KNOW HOW TO GET HELP.

To get help, dial **911**. Bring a cell phone in a dry bag and make sure you are aware of your surroundings and can communicate your position to emergency responders.

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A CITIZEN'S GUIDE TO FALL LAWN CARE

When rain falls and snow melts, the runoff produced picks up a variety of contaminants such as oil, metals, salts, pet waste, fertilizer, and grass clippings as it flows over roofs, roadways, sidewalks and lawns.

Stormwater runoff ultimately flows into storm drains.

Remember: storm drains lead directly to our local rivers and streams.

Using responsible lawn care practices is one step toward cleaner rivers and lakes — even if you don't have waterfront property.

START WITH SOIL:



Perform a soil test to determine what your lawn needs. When necessary, use earth friendly fertilizers, which use low or no phosphorus, and fertilize in fall to build strong grass roots. Additional fertilizer before May is usually unnecessary. Raking $\frac{1}{2}$ inch of compost onto your lawn is a natural alternative to fertilizer.

WHAT YOUR LAWN NEEDS:



Cut your grass high (2 $\frac{1}{2}$ to 3 inches) to promote root growth and shade out weeds. Let grass clippings fall onto the lawn for extra nutrients, and be sure to sweep them off of paved surfaces and back onto the lawn. Light frequent watering prevents overwatering and allows root absorption.

YOUR LAWN'S ECOSYSTEM:



Avoid weed-and-feed combination fertilizer and weed control. These products can harm the beneficial insects and plants in your lawn. In addition, sweep fertilizer back onto the lawn, as excess fertilizer beads will wash down storm drains and into our rivers and lakes. Lastly, be sure to leave a “no fertilizer” buffer of at least 15 feet near lakes and rivers to maintain the natural balance of our freshwater ecosystems.

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A CITIZEN'S GUIDE TO GREEN INFRASTRUCTURE

When rain falls and snow melts, the runoff produced picks up a variety of contaminants such as oil, metals, salts, pet waste, fertilizer, and grass clippings as it flows over roofs, roadways, sidewalks and lawns.

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Remember: storm drains lead directly to our local rivers and streams.

Green Infrastructure (GI) is used to manage the quality and quantity of stormwater. Natural and porous surfaces help to capture and filter stormwater. This slows the flow to ease flooding and helps to filter out pollutants. Instead of stormwater entering storm drains directly from roofs, roadways, and sidewalks, the water is absorbed and processed in a more natural way.

TYPES OF GREEN INFRASTRUCTURE

- Downspout disconnection
- Rain barrels
- Rain gardens
- Planter boxes
- Bioswales
- Permeable pavements
- Green spaces
- Green roofs
- Urban tree canopy
- Land conservation

BENEFITS OF GREEN INFRASTRUCTURE

- Stormwater capture & retention
- Filtration by plants
- Reduced flooding & erosion
- Improved water and air quality
- Habitat creation for wildlife and pollinators
- Evapotranspiration
- Community development
- Beautification
- Increased property values
- Economic benefits
- Human health benefits



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MACHINE SHOP BEST MANAGEMENT PRACTICES (BMP'S)

When rain falls and snow melts, the runoff produced picks up a variety of contaminants such as oil, metals, salts, pet waste, fertilizer, and grass clippings as it flows over roofs, roadways, sidewalks and lawns.

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HOW DO MACHINE SHOPS CONTRIBUTE TO STORMWATER POLLUTION?

- Through improper storage of chemicals, paints, metals, and other substances (this can include storage on porous pavement, storage containers that aren't double walled, leaky containers, or a lack of secondary containment such as dykes or berms).
- Improper disposal of products from equipment maintenance, such as cleaning solvents, oil, grease, and fuel.
- Improper disposal of swarf (chips/turnings/filings/shavings) that results from subtractive manufacturing.
- An insufficient spill response plan, or improper hazardous spill management.

BEST MANAGEMENT PRACTICES (BMP):

Behaviors and practices used by individuals and businesses to prevent or reduce stormwater pollution impacts.



- Sweep fabrication areas regularly to avoid heavy accumulation of swarf and use dry clean up methods instead of washing areas down.



- Place batteries, hazardous materials, and waste in secondary containers to avoid spills.



- Write a spill response plan and train employees annually.
- Have readily available spill kits, which can prevent a spill from entering storm drains.



- Store metal parts and equipment indoors where not exposed to precipitation. If something must be stored outside, apply a temporary cover such as a tarp or canvas.



- Frequently check all containers for leaks, or potential holes.



- Consistently train employees on good housekeeping and proper hazardous material management techniques.



- Never dump anything other than clean water into a storm drain!

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A CITIZEN'S GUIDE TO WATERSHED FRIENDLY PET CARE

When rain falls and snow melts, the runoff produced picks up a variety of contaminants such as oil, metals, salts, pet waste, fertilizer, and grass clippings as it flows over roofs, roadways, sidewalks and lawns.

Stormwater runoff ultimately flows into storm drains.

Remember: storm drains lead directly to our local rivers and streams.

Stormwater runoff from lawns and sidewalks carries animal waste into our storm drains and out to our rivers and lakes. This is a source of bacteria that is harmful to human health and a source of excess nutrients that have a negative effect on water quality. Here are some simple tips to help keep our beaches and water clean.



DISPOSE OF PET WASTE



Whether in your yard, on a walk, or at the park, promptly pick up and dispose of your pet's waste in the trash.

PICK UP BEFORE WATERING THE LAWN



Pick up pet waste before watering your yard, cleaning patios or driveways.

SHARE THE MESSAGE



When at a dog park, community meeting, or talking with your friends, spread the word about the positive impact picking up after your pet can have on water quality.

DON'T TREAT DUCKS AND GEESE AS PETS



Feeding ducks and geese may seem harmless but it causes them to rely on humans for food and creates high populations. This increases the amount of animal waste produced, polluting our waters and beaches with harmful bacteria and excess nutrients.

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A CITIZEN'S GUIDE TO RAIN GARDENS

When rain falls and snow melts, the runoff produced picks up a variety of contaminants such as oil, metals, salts, pet waste, fertilizer, and grass clippings as it flows over roofs, roadways, sidewalks and lawns.

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Rain gardens are landscaping features designed to capture stormwater runoff from roofs, parking lots, lawns and roads.

HOW DO RAIN GARDENS IMPROVE WATER QUALITY?

- Rain gardens slow stormwater by collecting it before it enters storm drains. Once captured it can be soaked up by the plants or slowly move through the soil. This helps in areas where flooding is an issue.
- Plants in a rain garden use excess nutrients in stormwater, and help to keep other pollutants from entering streams, lakes and rivers.
- Not only do they improve water quality, rain gardens also provide habitat and food for pollinators and other wildlife.



Newly planted rain garden at the CRWC office in wet weather (left) and dry weather (right)

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A CITIZEN'S GUIDE TO HOUSEHOLD HAZARDOUS WASTE

When rain falls and snow melts, the runoff produced picks up a variety of contaminants such as oil, metals, salts, pet waste, fertilizer, and grass clippings as it flows over roofs, roadways, sidewalks and lawns.

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Some products we use in and around our homes can harm people and pollute our rivers, lakes and drinking water. These items are called "household hazardous waste". They need safe disposal and should never be dumped down storm drains, thrown in the trash or dumped on the ground. Some examples include cleaning products like bleach, tub and tile cleaners and drain cleaners, paint and automotive products like antifreeze and motor oil.



To safely dispose of these products, many communities host hazardous waste drop off events, or offer drop off locations. Check your city or township website or find your county information below:

Macomb County:

<https://bit.ly/3FnhJuv>

Oakland County:

<https://bit.ly/3FiZICZ>

Wayne County:

<https://bit.ly/3KOWZge>

To see if something is considered household hazardous waste, check your county website for a list, or look for words such as 'warning,' 'caution,' 'flammable,' 'toxic,' 'poison,' 'corrosive,' or 'oxidizer,' on the label.



POISON



EXPLOSIVE



CORROSIVE



FLAMMABLE

Be sure to store products in their original container with labels. Only buy what you need and will use. Never pour oil, paints, or chemicals directly down the sink or outside.

Consider using homemade, natural cleaning products.

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Springtime means spring cleaning for many of us. Whether you are cleaning inside the house, in the garage, out on the deck, or on the driveway, you can have an impact on water quality. Here are some simple steps for keeping our waterways healthy and clean while spring cleaning!

DON'T DUMP OR FLUSH MEDICATIONS



Expired or unused medication and personal care products should be disposed of properly. Take your unused pharmaceuticals to a drug take back program.

DISPOSE OF HOUSEHOLD HAZARDOUS WASTE PROPERLY



If you have old oil-based paint, solvents, dead batteries or other items from your garage or home, remember to dispose of them properly. This means no dumping in storm drains, flushing down toilets or throwing in the trash. Substances like these are considered household hazardous waste (HHW) and must be disposed of in a designated location to help protect water quality. Check your city or township's website for disposal days and locations.

SWEEP INSTEAD OF HOSE



If you are cleaning up your driveway or sidewalks, please remember to use a broom to sweep dirt and debris onto your lawn or into a trash can. When you hose the debris from your driveway or sidewalks, the runoff you create goes into storm drains and out to local rivers and streams.

USE NATURAL CLEANING PRODUCTS



If you plan to wash your outdoor furniture, windows, deck, car, etc., make sure the cleaning products you use are free of chemicals, phosphates and water-based only. Never do washing or rinsing on your driveway. Instead, do it on the grass and far from a river, lake or stream to prevent runoff from entering storm drains.

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Fertilizer from lawns can enter waterways through storm drains. This can add excess nutrients to water bodies causing an overgrowth of algae and aquatic plants. This leads to low oxygen levels and poor water quality. Use these tips to practice water friendly fertilizer use.

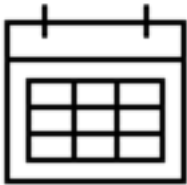
DO I NEED FERTILIZER?



The most accurate way to learn what nutrients, if any, your lawn needs is a soil test. Test kits are available for \$25 through MSU Extension. They can also be found online or at your local hardware store.

Correct watering ($\frac{1}{2}$ - $1\frac{1}{2}$ in./week), mowing (keep grass at 3 in.), and other lawn care practices can reduce or even eliminate the need for fertilizer.

WHEN SHOULD I BE FERTILIZING?



If you do need to fertilize, fall is a good choice for the health of your lawn. This will boost roots, helping with strong lawn growth in the spring.

Check the weather. Avoid applying fertilizer if there is rain in the forecast. This will help to keep fertilizer from washing into storm drains.

HOW DO I PICK THE RIGHT FERTILIZER?



Avoid “weed-and-feed” mixtures of fertilizer and herbicides, Use Earth friendly fertilizers, which have low or no phosphorus, and slow releasing nitrogen.

WHAT ELSE SHOULD I KNOW?



Be sure to sweep extra fertilizer beads off paved surfaces and back onto your lawn. When left unswept, unused fertilizer beads will end up in stormwater runoff and in our local rivers and streams.

Using compost instead of fertilizer is a good way to give your soil a boost naturally.



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A CITIZEN'S GUIDE TO LAND USE AND WATER QUALITY

When rain falls and snow melts, the runoff produced picks up a variety of contaminants such as oil, metals, salts, pet waste, fertilizer, and grass clippings as it flows over roofs, roadways, sidewalks and lawns.

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Stormwater runoff connects land use and water quality directly. Different land uses contribute different materials to stormwater runoff. These materials change the environment of the water body they enter.

RESIDENTIAL LAND USE



In suburban areas, many household items add nutrients to the water, such as fertilizer used on lawns, grass clippings, pet waste, and detergents. This causes an overgrowth of plant life and potentially hazardous algal blooms. When household hazardous wastes (cleaning products, paints, vehicle fluids) are improperly disposed of, or improperly stored, they can end up in storm drains and add toxic chemicals to the water.

URBAN LAND USE



Cities have lots of hard surfaces like roads and parking lots. Roads and parking lots don't allow water to soak into the ground. Instead, it moves quickly to storm drains which causes flooding. These surfaces also hold heat, warming stormwater as it passes over, causing large amounts of warm water entering waterways quickly. This can harm cool, or cold-water species such as trout. Runoff also contains harmful pollutants, like oil from cars, road salt, and litter.

AGRICULTURAL LAND USE



Animal waste and fertilizer from crops contain nutrients and can cause an overgrowth of plant life and algal blooms, which leads to low oxygen levels in the water. Some algal blooms* are also toxic to humans and ecosystems. Pest and weed killers used on farms can harm life in the water.

PARKS AND GOLF COURSES



Turf grass has shallow roots and are unable to soak up heavy rains, which can lead to flooding. These areas are mowed often and sometimes fertilized. Grass clippings and fertilizer contain nitrogen and phosphorous, which are nutrients that cause plants to grow. This leads to plant overgrowth, algal blooms, and low oxygen levels.

NATURE AREAS LIKE WETLANDS, PRESERVED FORESTS AND PRAIRIES



These green spaces are full of plants, trees, shrubs, and natural surfaces. They collect stormwater and filter pollutants. This helps prevent flooding and improves water quality. Natural areas help to keep our waterways healthy and clean, and reduce the amount of stormwater runoff.

**Harmful algal blooms as defined by the Environmental Protection Agency (EPA) are "a major environmental problem in all 50 states. Red tides, blue-green algae, and cyanobacteria are examples of harmful algal blooms that can have severe impacts on human health, aquatic ecosystems, and the economy".*

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A CITIZEN'S GUIDE TO RAIN BARRELS

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WHAT IS A RAIN BARREL?

A rain barrel is a device that collects rain water from your roof and stores it. It is placed under a downspout, with water from the downspout filling it up during a rain event. A nozzle near the bottom lets you access water when it is needed. Rain barrels can be purchased, or made at home using items found at a hardware store. The stored water can be used to water your garden or lawn.

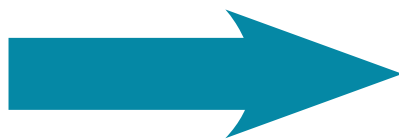


HOW RAIN BARRELS HELP YOUR HOUSE AND YARD:

- Save water
- Reduce pollution by reducing stormwater runoff
- Prevent wet spots near rain gutter outlets
- Provide water without chlorine, lime, or calcium which is great for gardens and lawns

WHAT ABOUT MOSQUITOES?

Having a screen over your rain barrel will prevent mosquitoes from getting in and laying eggs. You can also buy a mosquito control tablet with BTI, a naturally-occurring bacteria that targets mosquito larvae. BTI is harmless to plants, animals, and people.



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BEST MANAGEMENT PRACTICES FOR SCHOOLS

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HOW DO SCHOOLS CONTRIBUTE TO STORMWATER POLLUTION?

- Abundance of impervious (water can't soak through) surfaces
- Lawn care
- Litter
- Bus yards and maintenance garages

BEST MANAGEMENT PRACTICES (BMP):

Behaviors and practices used by individuals to prevent or reduce stormwater pollution impacts.



GO GREEN

- When re-paving parking lots, incorporate green islands with native plants and trees.



CLEAN UP

- Host clean up events with students, parents and teachers to pick up litter around the school.



PLANT POWER

- Allow mowed areas to grow, and install native plants to support wildlife and improve filtration of stormwater.



EDUCATE

- Include stormwater education in the classroom.
- Have students install a raingarden, plant native plants, or participate in a clean up activity.



SLOW THE FLOW

- Direct downspouts and paved areas to a raingarden or vegetated area.



SWEEP

- Sweep impervious surfaces like parking lots and garages to collect and dispose of salt and other debris.



STORE

- Practice good housekeeping such as storing chemicals indoors in regulated containers, correct labeling, and keeping a spill kit on hand.



CAPTURE

- Consider installing and maintaining catch basin filters.

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Scraping facilities and automobile salvage yards play an important part in recycling used materials to make our systems more environmentally efficient. They often deal with a variety of hazardous pollutants that can end up in our stormwater if not effectively managed.

HOW DO ACTIVITIES AT SCRAP METAL AND AUTO SALVAGE YARD FACILITIES CONTRIBUTE TO STORMWATER POLLUTION?

- Improper outdoor storage of vehicles, and parts with leaking engines, chipping paint, leaking hydraulic fluids, or bad batteries
- Improper disposal of filters, rags, and fluids associated with vehicle and equipment maintenance
- Improper disposal of washing, and steam cleaning wastewater from vehicle, equipment, and parts washing
- Spills and overfills of waste fluid due to operator error

BEST MANAGEMENT PRACTICES (BMP):

Behaviors and practices used by individuals to prevent or reduce stormwater pollution impacts.



Store cars, car parts and other items inside and out of the rain. This will help to keep pollutants out of storm drains. Tarps and canvas can act as temporary covers for materials being stored outside.



Store lead parts and batteries in a secondary, leakproof container.



Designate an area for equipment maintenance and cleaning. Use minimal cleaners and solvents. Never dump used cleaning water down storm drains. Use a utility sink that is connected to a sanitary sewer.



Use catch sleds, drip pans, or large plastic sheets to catch leaking fluids for proper disposal.



Safely remove pollutant sources (batteries, oil filters, fuel, mercury switches) as soon as possible when a vehicle enters the facility.



Practice good housekeeping, such as keeping updated logbooks, regular facility inspections, and employee training on best management practices.



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STORMWATER AND PLASTICS:

Stormwater can carry plastic waste to storm drains or directly into nearby water bodies. Once there, plastic waste can flow into the Great Lakes and ultimately our oceans. According to a study by the Rochester Institute of Technology, more than **22 million pounds of plastic pollution end up in the Great Lakes every year!**

Plastic waste does not go away, instead it breaks down into smaller pieces called microplastics. Microplastics are defined as plastic fragments less than 5mm in size (the top of a push pin). These microplastics are very small and have been found in drinking water and in the food chain.



YOU CAN HELP!

Here are some easy alternatives to common single-use plastics:

IF YOU USE	TRY THIS ALTERNATIVE
Plastic grocery bags	Store reusable bags in your car, backpack, or purse, and bring them shopping
Disposable coffee cups	Keep a reusable thermos, or mug with you—most coffee shops will fill it up for you too
Plastic straws	Try no straw, use a reusable straw, or use a compostable straw
Plastic water bottles	Fill up a reusable water bottle before you leave your house
K-cups or single serve coffee	There are reusable coffee pods available, which also cuts down on cost
Plastic sandwich bags	Switch to reusable food storage containers
Plastic cutlery	Keep reusable cutlery with you, such as camping cutlery that comes with its own carrying case to keep them in

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WHAT ARE INVASIVE SPECIES?

Invasive species are non-native species (species not naturally found in an area, and were introduced through human activities) that cause harm to humans, the environment, or the economy. It is important to know that not all non-native species are invasive, and must cause harm to be considered invasive. Invasive species can be transported by boats, fishing equipment, and by accidental release. Invasive species can spread to freshwater sources via stormwater too, by seedlings that get caught up in flood events.

WHO MANAGES INVASIVES?

In Michigan, they are called Cooperative Invasive Species Management Areas, or CISMAs. Visit lakestclaircisma.com for Macomb County, and oaklandinvasivespecies.org for Oakland County. To learn more about what to do when you find an invasive species, scan the QR code to the right of this text box. Below are some (but not all!) invasive species to keep a lookout for.



For more information on identifying and reporting invasive species



Black swallow wort
(*Cynanchum louiseae*)



Phragmites
(*Phragmites australis*)



European frogbit
(*Hydrocharis morsus-ranae*)



Didymo "Rock Snot"
(*Didymosphenia geminata*)



Water hyacinth
(*Eichhornia crassipes*)



Purple loosestrife
(*Lythrum salicaria*)



Japanese knotweed
(*Fallopia japonica*)
or
(*Polygonum cuspidatum*)



Asian bittersweet
(*Celastrus orbiculatus*)



Water lettuce
(*Pistia stratiotes*)



New Zealand
Mud Snail
(*Potamopyrgus antipodarum*)





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NATIVE PLANTS AND WATER QUALITY

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Stormwater runoff ultimately flows into storm drains.

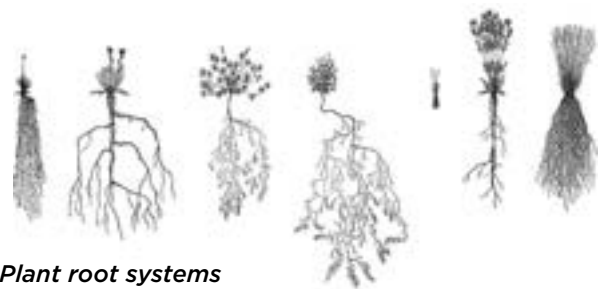
Remember: storm drains lead directly to our local rivers and streams.

WHAT IS A NATIVE PLANT?

- Found in nature
- In a given region
- Have evolved in their region over a long period of time, without human help
- Not brought to an area by people
- Grows unaided in its habitat



Butterfly milkweed, a plant native to southeast Michigan, with a monarch butterfly.



Plant root systems

HOW DO NATIVE PLANTS IMPROVE WATER QUALITY?

- Absorb stormwater
- Deep roots prevent soil erosion
- Filter stormwater pollutants, such as excess nutrients, heavy metals and chemicals

WHY SHOULD WE PLANT NATIVES?

Native pollinators, insects and animals have evolved over time with native plants. This has created healthy relationships within the ecosystem. Native plants can provide food and shelter to local wildlife, and wildlife can help spread native plants.

They are low maintenance and earth friendly to grow. Once established, native plants do not need fertilizer, pesticides, or excessive watering. This is because they are adapted to local soils and climate.

Shoreline protection using native plants is called a "riparian buffer. This is a planted strip along a shoreline, stream, or riverbank. This keeps the shoreline from washing away, provides habitat, and filters pollutants out before they enter the water.



Riparian buffer at Depot Park in Clarkston, MI.

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A CITIZEN'S GUIDE TO SELECTING A LAWN SERVICE FOR WATER PROTECTION

When rain falls and snow melts, the runoff produced picks up a variety of contaminants such as oil, metals, salts, pet waste, fertilizer, and grass clippings as it flows over roofs, roadways, sidewalks and lawns.

Stormwater runoff ultimately flows into storm drains.

Remember: storm drains lead directly to our local rivers and streams.

TIPS FOR HIRING A LANDSCAPE OR LAWN MAINTENANCE PROFESSIONAL

1. Before contracting for landscape (or any) work, ask for references, go look at the work, follow up and talk with the owners to hear their experiences.
2. Get the contract, guarantees, or warranties in writing.
3. Ask if they carry insurances for general liability, vehicles, workers compensation, and unemployment.
4. Do they have the appropriate local business licenses? A state Nursery Handlers License (required for anyone handling nursery stock)? A pesticide applicators license for pesticide spraying?
5. Is their equipment well maintained?
6. Be absolutely clear about the terms of payment and the date of completion.
7. Make certain the company office address and phone number are on the document/contract and know the name of the representative or designer who worked with you.



The Michigan Green Industry Association (MGIA) offers an certification program for lawn care professionals interested in offering a freshwater friendly lawn care program to their customers.

Participating lawn care companies may advertise “Healthy Lawn Care Program for Water-shed Protection”.



The MGIA Healthy Lawn Care Program includes:

- An initial on-site consultation
- Soil nutrient tests offered to new customers
- No phosphorous or low-phosphorous fertilizer options
- Slow-release nitrogen fertilizer options
- Advice to the customer on proper maintenance practices such as mowing and watering
- Fertilizer quantities of two, three, or four pounds per 1000 square feet, applied over the growing season
- Weed control
 - zero pesticides
 - spot-treatment for weeds and/or
 - one-time rescue operation for weed control

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When rain falls and snow melts, the runoff produced picks up a variety of contaminants such as oil, metals, salts, pet waste, fertilizer, and grass clippings as it flows over roofs, roadways, sidewalks and lawns.

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As the name suggests, stormwater begins in storm clouds as rain. Stormwater runoff is also created when snow melts in the spring. If the ground is a natural surface like in a forest, the water can soak into the ground and be absorbed by soil and plants. If the ground is hard, or impervious, like roads, and parking lots, water will run off and be directed somewhere else.



Depending on where rain falls determines what the stormwater runoff will pick up along the way. If rain falls on a farmer's field, it could pick up fertilizer or manure, or possibly pesticides and herbicides used to treat the field. If rain falls on an urban landscape, it could pick up litter, oils and gasoline, salts, and heavy metal contaminants. Natural landscapes pose little threat, as natural materials like leaves and plants are what may be picked up and washed into a river.



Stormwater eventually ends up in a storm drain, or runs off land into a nearby waterway. Storm drains take stormwater directly into rivers, lakes and streams, along with anything and everything the stormwater brought with it. In some cases, when cities have combined sewer systems, stormwater goes to a water treatment plant before being discharged to a waterway.



There are many negative effects of stormwater. Heavy metals and chemicals can permanently alter ecosystems. Excess nutrients from fertilizers can cause harmful algal blooms. Strong storms can bring flooding and fast-moving water, which cause erosion. Animal waste from pets or geese can lead to harmful bacteria in the water, which can make people and animals sick.

You can help improve stormwater runoff and water quality:

- Consider planting a rain garden, which will help absorb and filter the stormwater on your property.
- Clean up after your pets, don't let your grass clippings go down the storm drain, and be mindful of the salt you put outside in the winter. Anything on the ground outside can end up in the storm drains.
- Make sure to dispose of household hazardous wastes like paint, cleaners, and oils properly. Check your county's website for more information on disposal.

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KEEPING IT WATERSHED FRIENDLY IN THE WINTER

**5 TIPS FOR WINTER WEATHER
& CLEAN WATER!**

When snow and ice melt, dissolved salts on roadways are carried into adjacent storm sewers that enter our local rivers, lakes and streams. Once in the water there is no way to remove the chloride, and at high concentrations chloride harms fish and plant life.

Below are a few tips for keeping salt use down and waterways healthy

1

Shovel First: The more snow and ice you remove manually, the less salt you will have to use. Break up ice with an ice scraper or shovel snow off walkways, then decide if application of de-icer or salt is necessary to maintain traction.

2

Slow Down: Drive for winter conditions and be courteous to slow-moving plows. The slower they drive, the more salt will stay on the road where it's needed.

3

Use Sparingly: More salt does not mean less ice. Use less than four pounds of salt per 1,000 square feet (an average parking space is about 150 square feet). One pound of salt is approximately a heaping 12-ounce coffee mug. Also be patient; salt takes time to work. Applying more before allowing time to take affect will lead to unnecessary contamination.

4

Sweep It Up: If extra salt or sand is visible on dry pavement, it is no longer doing any work and will be washed away. The excess can be swept up and reused for the next snow or disposed of in the trash.

5

Wait For Warm Weather: Most salts stop working efficiently when the temperature is below 15 degrees. You can use sand instead for traction in these frigid conditions.



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ATTENTION!

ONLY RAIN DOWN THE DRAIN

NO

Mop water
Cleaning products
Salt
Soap
Soil
Leaves
Grass clippings
Grease
Produce
Oil
Solvents
Detergents
Sand
Fertilizer
Pesticides
Wastewater



Did you know that storm drains lead directly to local water bodies? This could be your subdivision's retention pond, the river running through your favorite park, or the lake where you like to fish or swim.

Whatever enters these drains will flow directly into these bodies of water.

**Do your part to protect
freshwater by keeping
ONLY RAIN IN THE DRAIN**



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When rain falls and snow melts, the runoff produced picks up a variety of contaminants such as oil, metals, salts, pet waste, fertilizer, and grass clippings as it flows over roofs, roadways, sidewalks and lawns. Stormwater runoff ultimately flows into storm drains. Remember: storm drains lead directly to our local rivers and streams.

HOW DO HOAs CONTRIBUTE TO STORMWATER POLLUTION?

HOAs are often responsible for management of retention and detention ponds and common spaces of neighborhoods. Improper management of retention and detention ponds can lead to the spread of invasive species, algal blooms, and the buildup of sediments.

BEST MANAGEMENT PRACTICES (BMP):

Behaviors and practices used by individuals and businesses to prevent or reduce stormwater pollution impacts.



EUTROPHICATION OR ALGAE BLOOMS

-
-

Algae found in neighborhood ponds are caused by excess fertilizer, pesticides, and grass clippings entering the water. Try to limit fertilizer usage and sweep lawn clippings off of sidewalks and driveways and back onto lawn.



INVASIVE SPECIES

-
-

Be sure to remove invasive species such as phragmites when possible. Replant these areas with native plants to ensure invasives stay out. Native plants will also help keep extra nutrients out of the water, preventing algae.



LACK OF WILDLIFE HABITAT

-
-

Many neighborhoods lack trees, shrubs, and grasses that are good for wildlife. Adding these plants, as well as bat boxes, bee houses, and bird houses can help different species thrive.



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DO IT YOURSELF RAIN BARREL

Using a rain barrel is a great way to take advantage of the stormwater that comes off of your roof. You can use the collected rainwater to water your lawn and your gardens! This prevents excess water from traveling over the ground and bringing pollutants to local waterways through storm drains.

PARTS NEEDED

- 55 Gallon food grade drum
- 3/4" thread hose barb for 1/2" inner diameter hose x2
- 5/8" Thread hose barb for 1/2" inner diameter hose
- 1/2" inner diameter vinyl hose (4 ft section and enough for your specific application)
- Hose clamps to fit vinyl hose outer diameter x2
- PVC pipe sealant
- Teflon tape
- 4" Atrium grate
- 7" Diameter screen material (for mosquito control)
- Optional: 2"x3" Flex-elbow downspout
- You can connect your rain barrel to your downspout however you like, but we've found this works well.

HOW TO ASSEMBLE A RAIN BARREL

1. Drill 2, 3/4" holes:
 - first hole: 2"-3" above the bottom for hose
 - second hole: 2" from top for overflow
2. Thread 3/4" hose barbs into top and bottom holes to check fit, then remove
3. Apply Teflon tape and PVC pipe sealant to both barb threads.
4. Completely thread barbs into holes. Let dry for 24 hrs.
5. Cut 4" diameter hole in center of top of barrel
6. Insert atrium grate into the hole so that it is nested inside of the barrel
7. Lay screen over spout adapter over grate and trim screen to size
8. Attach hose to lower barb with hose clamp
9. Attach 5/8" hose barb to free end of vinyl hose with hose clamp (garden hose would be attached to this end).

TOOLS NEEDED

- Drill
- 3/4" hole saw bit
- 4" hole saw bit, jig saw or equivalent
- Flat screwdriver
- Scissors
- Pliers

Example with spigot in place of bottom hose

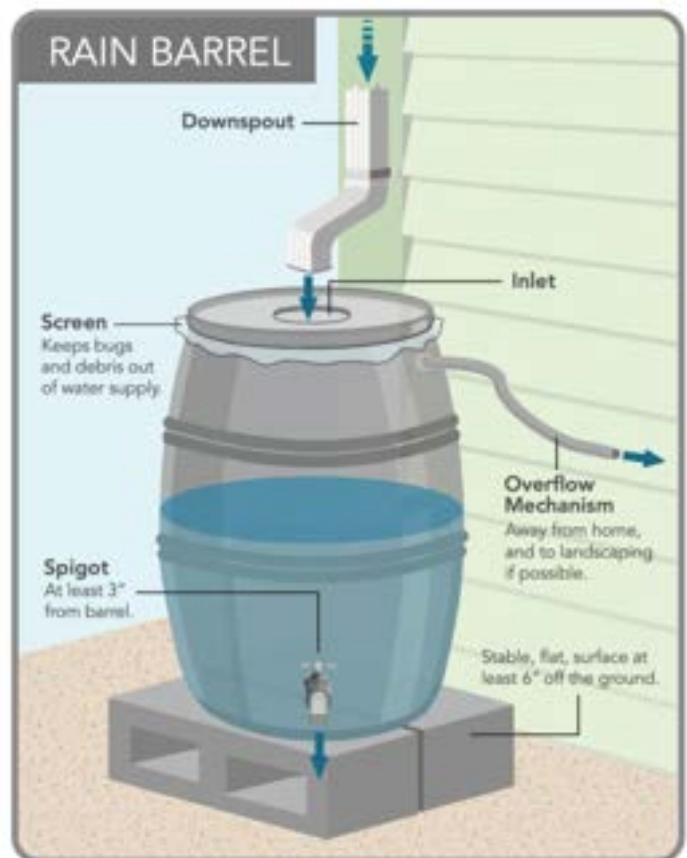


Image courtesy of the City of Palo Alto Stormwater Program

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A CITIZENS GUIDE TO PFAS

When rain falls and snow melts, the runoff produced picks up a variety of contaminants such as oil, metals, salts, pet waste, fertilizer, and grass clippings as it flows over roofs, roadways, sidewalks and lawns.

Stormwater runoff ultimately flows into storm drains.

Remember: storm drains lead directly to our local rivers and streams.

WHAT ARE PFAS, PFOS, AND PFOAS?

Per- and Polyfluoroalkyl substances (PFAS) are a group of man-made chemicals that have been used since the 1940s in industrial and commercial products. They are known as “forever chemicals” because of how slowly they break down in the environment, and the way they build up in the bodies of people and animals.

ARE PFAS CHEMICALS HARMFUL?

PFAS and other chemicals are known to cause harm in people, plants, and animals. They can interrupt hormone function, increase risk of some cancers, weaken immune systems, and can cause developmental delays. They are very difficult to remove once they have contaminated a site.

WHERE DO PFAS COME FROM?

PFAS chemicals are found in many products that are used every day. Some examples are, fire extinguishers, nonstick pots and pans, stain resistant fabrics, and many other products. PFAS ends up in water from improper disposal, or stormwater runoff carrying it from a source location, such as a factory or military training site.



Original graphic via Australia Department of Defense

WHAT IS BEING DONE TO REMOVE PFAS FROM THE ENVIRONMENT?

Several kinds of PFAS chemicals have been banned, though their replacements are still under review for their long-term effects on people and the environment. Many contaminated sites are being treated and managed by organizations such as the Environmental Protection Agency. Activated carbon filters, reverse osmosis, and ion-exchange treatments are several ways that PFAS is removed from drinking water.

To explore known PFAS contaminations across the US:
https://www.ewg.org/interactive-maps/pfas_contamination/map

For more information straight from EGLE:
<https://www.michigan.gov/pfasresponse>

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WHAT IS STORMWATER?

When it rains, water runs off roofs, roadways, sidewalks and lawns picking up oil, metals, salts, pet waste, fertilizer, grass clippings and other materials. Stormwater runoff ultimately flows into storm drains, which lead directly to our local rivers and streams.

HOW DO COMMERCIAL CAR WASHES CONTRIBUTE TO STORMWATER POLLUTION?

- Toxic chemicals such as hydrofluoric acid, phosphates from detergents, lubricants and oil.
- Debris and sediments washed from vehicles.
- Litter.

BEST MANAGEMENT PRACTICES (BMP): Behaviors and practices used by individuals to prevent or reduce stormwater pollution impacts.



CHEMICAL USE



Take care not to overuse, or allow chemicals, lubricants and oils to spill out of containers.



CONTROL LITTER



Pick up any litter in an around the car wash to keep it from entering storm drains and nearby waterways.



ROUTINE MAINTENANCE



If your car wash has a grit trap, have it cleaned regularly with sludge properly handled and disposed of.



EDUCATE STAFF



Check out EPA's safer choice guide for products <https://www.epa.gov/saferchoice/products>



ECO FRIENDLY DETERGENT



Use biodegradable, phosphate free, fragrance free and dye free detergents.



CHEMICAL DISPOSAL



Properly dispose of unused chemicals.



CLEAN BOATING PRACTICES



NO SPILLS AT THE PUMP

Use an absorbent bib or collar, available at most boating shops, to collect any spills during refueling. Wipe up any drips from re-fueling. The Coast Guard recommends filling tanks to 90% to allow for expansion due to heat, and to prevent overfills.



DEALING WITH SPILLS

Immediately report any spills to the marina. In open waters, call the U.S. Coast Guard National Response Center (1-800-424-8802). Never use dish soap or detergent to break up a spill, as that just disperses the oil or gas, making it harder to collect. Spill responses will vary depending on location, material, and amount spilled.



BLACK WATER

This is the sewage from your on-board bathroom. While there are various systems available, dumping them directly into the lake is always illegal. Systems should be checked for leaks and manufacturer's guidelines must be followed.



GRAY WATER

Untreated water from your onboard sinks and showers, and the wastewater from cleaning your boat with detergents is a major polluter of the marine environment. Use care to prevent gray water from impacting your local waters and wildlife.



WASTE DISPOSAL

Marine debris not only harms important habitats and wildlife, but also can cause damage to your boat. Prevent waste from entering our waterways by: reducing, reusing and recycling. Remember to take everything you bring on the water, off the water.



CLEAN WATER

Remember, eventually all the water poured down drains will drain out into the Clinton River and Lake St. Clair. We can all do our part by being cognizant of our relationship to our fresh waters!





WHAT IS STORMWATER POLLUTION?

When it rains, water runs off roofs, roadways, sidewalks and lawns picking up oil, metals, salts, pet waste, fertilizer, grass clippings and other materials.

This stormwater runoff ultimately flows into storm drains, which lead directly to our local rivers and streams.

HOW DO COMPOSTING FACILITIES CONTRIBUTE TO STORMWATER POLLUTION?

- **Sedimentation**- sediment particles and organic matter washed away from compost materials enter local water bodies, covering important aquatic habitat features and contributing to the loss of wetlands.
- **Pollutant Loading** – excess nutrients and chemical pollutants get carried to local waterways by stormwater, causing nutrient imbalance, eutrophication, and overall habitat degradation.

Composting facilities can negatively impact local waterbodies and wildlife through excess sedimentation, excess nutrients, and chemical pollutants.

This publication provides composting facilities best management practices (BMPs) on how to manage these facilities responsibly, to mitigate the illicit impacts of stormwater runoff.

WHAT?	HOW?	WHY?
Site Configuration	Aim to use natural slope of the land to separate stormwater and wastewater. Ensure slope still allows for plant growth to control sedimentation and stormwater runoff.	Strategic site configuration can limit the quantity of runoff carrying harmful pollutants into our waterways.
Exposure Reduction	Eliminate or minimize the amount of composting material exposed to precipitation. Roof structures are best, but tarps and canvas can act as a temporary solution.	Covering your compost materials from precipitation will reduce the amount of sediment, dissolved solids, nutrients, pathogens, and heavy metals washed into our stormwater system.
Vegetative Cover	Add native vegetation around your composting site.	Sediments, phosphorus, and other organic matter in stormwater can be reduced by adding native vegetation that slows water flow and promotes infiltration.
Rainwater Capture System	Add rain barrels or other rainwater harvesting system to roofed facilities to capture precipitation.	Capturing reduces the amount of stormwater runoff and provides facilities with a useable source of water for moisture control, dust control, or any other facility need.
Rain Garden	A shallow plot in the landscape filled with soil or mulch and various types of wetland-friendly native plants.	Rain gardens capture, hold, and filter contaminated stormwater runoff. Water that enters the rain garden is slowly filtered by the native vegetation to reduce the amount of suspended solids, excess nutrients, heavy metals, and other pollutants entering our waterways. Rain gardens can also enhance the habitat and aesthetic qualities of your landscape.

For more information visit www.crw.org



Green Infrastructure in the Watershed

What is Green Infrastructure & how does it affect the Clinton River Watershed?



What is Stormwater?

When it rains or snows the runoff that flows across parking lots, streets and other solid surfaces picks up pollutants like salt, oil, grease, fertilizer and pet waste. This runoff flows into storm drains which lead directly to our local rivers and streams.

What is Green Infrastructure?

Green Infrastructure (GI), according to the EPA, refers to a range of stormwater management systems that use vegetation, soils, or other permeable surfaces or substrate to store, infiltrate or evapotranspire stormwater and reduce flows to sewer systems or to surface waters.

Types of Green Infrastructure

- Downspout disconnection
- Rainwater harvesting
- Rain gardens
- Planter boxes
- Bioswales
- Permeable pavements
- Green spaces
- Green roofs
- Urban tree canopy
- Land conservation



Rain Garden at CRWC Office



Bioswale installation at Clinton Township Civic Center



NYC Highline

GI mimics natural systems to capture, soak up, filter and store water. GI aims to reduce stormwater surges and the amount of pollutants entering local waterways.

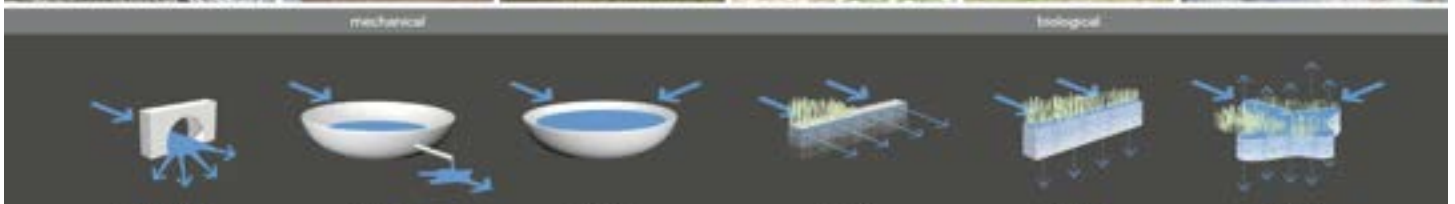


Image: uacdc.uark.edu

Flow Control Detention Retention Filtration Infiltration Treatment

For more information about GI and watershed-friendly practices visit CRWC.org



Green Infrastructure in the Watershed

What is Green Infrastructure & how does it affect the Clinton River Watershed?

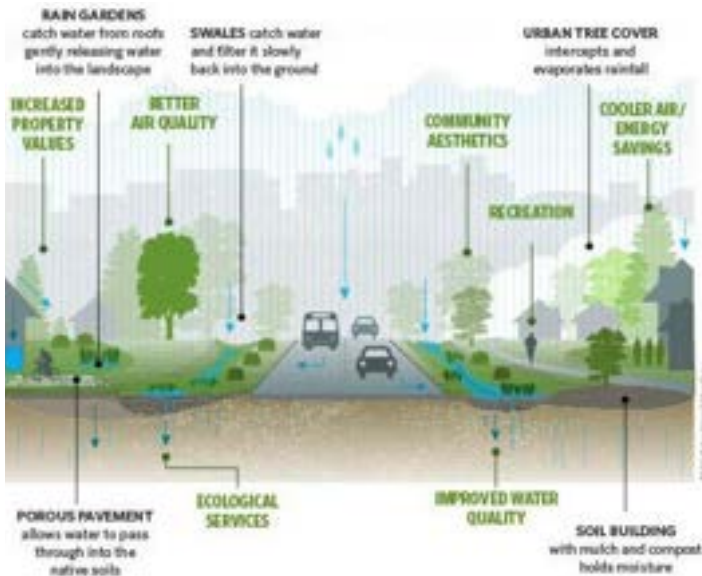


Image: natureworkseverywhere.org

Benefits of Green Infrastructure

- Stormwater capture & retention
- Filtration
- Reduced flooding & erosion
- Improved air and water quality
- Habitat creation for pollinators & wildlife
- Evapotranspiration
- Community development
- Beautification
- Increased property values
- Economic benefits
- Human health benefits

Communities that have Implemented GI projects:

- Clinton Township
- City of the Village of Clarkston
- Royal Oak
- Rochester Hills
- Sterling Heights
- Huntington Woods

Sterling Heights Island

Senior Center



Before



After

Rochester Hills Rain Garden

CRWC Office



Before



After

Green Infrastructure is a major component of CRWC's [WaterTowns® program](#), which is a community-based placemaking initiative that works to help improve water quality and adapt to climate change impacts for cities, towns and villages in the watershed.

CRWC's [RiverSafe LakeSafe program](#) also promotes GI systems and helps communities understand the benefits provided to homeowners and residents within the Clinton River watershed.

For more information about GI and watershed-friendly practices visit [CRWC.org](#)



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BMPs FOR HOMEOWNER ASSOCIATIONS (HOAs)

WHAT IS STORMWATER?

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HOW DO HOAs CONTRIBUTE TO STORMWATER POLLUTION?

- Improper management of retention & detention ponds
- Unintentional spread of invasive species
- Excess use of fertilizers, pesticides, herbicides, and road salt

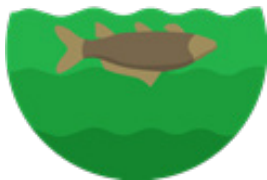
Homeowner Associations often inherit the responsibility of operating and maintaining stormwater infrastructure, such as detention basins, bioswales, and rain gardens. They also manage large areas of impervious surfaces. Limited knowledge of best management practices (BMPs) can lead these structures to fail in their purpose of managing stormwater. This publication is intended to provide HOAs with environmentally friendly solutions to mitigate stormwater pollution and increase the efficiency of their stormwater management tools.

MANAGEMENT TOOL

COMMON ISSUE

BEST MANAGEMENT PRACTICE

STORMWATER RETENTION POND



Eutrophication, or excessive algae growth.

Caused by excess nutrients (nitrogen and phosphorus) in fertilizer. Be sure to apply fertilizer in accordance with the label, and use low-phosphorus and slow-release fertilizers. Avoid the use of pesticides, herbicides, or fertilizers altogether, if possible.



Sedimentation, or the buildup of sediment in the pond or inlets and outlets.

Regularly inspect inlet pipes for sediment accumulation. If the sediment is blocking water flow, remove this sediment. Be sure to follow local and state regulations regarding dredging and sediment removal.



Invasive species like phragmites and reed canary grass can fill in a pond and lead to clogged inlets and outlets, flooding, sedimentation, and visibility issues.

Selectively remove invasive species such as phragmites and purple loosestrife. Reestablish this area with native vegetation. High plant diversity around your basin will improve wildlife habitat and reduce the risk of harmful algal blooms.



Excess road salt in stormwater runoff causes water quality issues and affects aquatic flora and fauna.

Avoid using road salt or use it sparingly. Store road salt on a flat, impervious surface and under a roof to avoid contributing to stormwater pollution.



Poor dumpster management leads to litter in stormwater runoff.

Be sure that dumpsters are emptied when full and the lids always remain closed. A “no-mow” zone or rain garden around stormwater systems can catch litter before it makes its way into our rivers.



Improper disposal of pet waste can lead to bacterial contamination in local streams and lakes.

Be sure to educate homeowners on the dangers of pet waste in our waters and encourage them to pick up after their pets. Supplying waste bags and trash cans in communal areas can help ensure the proper disposal of pet waste.



Excess grass clippings and other compostable waste can be a source of excess nutrients in our waters, leading to algae growth and eutrophication.

Educate homeowners on the proper disposal of compostable waste. Grass clippings and leaves should never be left on the sidewalk or in the street where they can easily wash into storm drains.



Communities often lack ample native wildlife habitat and are commonly overrun with harmful invasive species.

Rain gardens and native vegetation are excellent ways to boost wildlife habitat, increase aesthetically pleasing landscape, and curb the effects of stormwater runoff. Other ways you can increase the natural benefits in your community include implementing bird nesting boxes and native fish stockings.



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How to Build a Decontamination Kit for Invasive Species Prevention

Invasive species are plants, animals or fungi that are not native to Michigan and can cause harmful effects on our local economy, environment and human health (Michigan Invasive Species Program).

Invasive species can spread by hitching a ride on recreational equipment such as waders, kayaks, boats and fishing gear and other outdoor equipment. In order to limit the spread of invasive species, a cleaning or decontamination process is followed.

Invasive species can spread and invade new areas very quickly including lakes, rivers and streams. Many can survive out of the water for days or weeks at a time if not properly removed or cleaned from equipment. Terrestrial invasives can be spread by seeds or pieces of plants that may get caught on cloths or equipment.

Use the following kit content list to build your own invasive species decontamination kit.



- Kit Contents:**
- Towel or rag
 - Lint roller
 - Spray bottle with diluted bleach solution
Studies have shown formula 409 to be more effective on invasives such as the New Zealand Mudsnail (Potamopyrgus antipodarum)
•Diluted bleach solution - approximately 8 oz water to 2 oz bleach
 - Spray bottle with tap water
 - Brush
 - Hand sanitizer
 - Bleach wipes
 - Hoof pick
 - Safety glasses
 - Gloves (Latex, Nitrile or plastic)

Instructions

Follow this easy step-by-step procedure to clean your equipment and help prevent the spread of invasive species.

1. Clean and remove all debris, seeds, or plant material from your clothes and equipment using the brush, lint roller or hoof pick.
2. Spray or wipe down any water-resistant equipment used that day with 0.05% bleach solution (8 oz water to 2 oz bleach).
3. Let sprayed equipment soak for approximately 10 minutes.
4. Rinse with tap water and dry.

All decontamination efforts should take place on site before removing equipment from the area it was used. When using chemicals however, it is important not to spray the cleaning agent near any body of water. Move at least 10 - 15ft away from the water before using chemicals.



Image Source: msu.edu

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HOW DOES LANDSCAPING & LAWN CARE CONTRIBUTE TO STORMWATER POLLUTION?

- Fertilizer and pesticide applications.
- Gas, oil, and lubricant leaks from lawn equipment.
- Excessive and or misdirected watering leading to surface runoff.

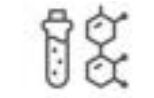
BEST MANAGEMENT PRACTICES (BMP): Behaviors and practices used by individuals to prevent or reduce stormwater pollution impacts.



SAVE WATER



Be sure sprinklers are not watering the cement and are turned off during rain events.



TEST



Always perform a soil test before fertilizer addition.



MULCH



Mulch leaves and grass clippings into the lawn to add nutrients and control weeds.



CLEAN UP



After fertilizer or pesticide application be sure to sweep any excess from sidewalks and driveways back onto the lawn, to keep chemicals out of storm drains.



GO NATIVE



Establish a buffer zone along shorelines and streambanks using native vegetation.



MAINTENANCE



Be sure lawn equipment is properly maintained, running efficiently and not leaking.



MOW HIGH



Never cut more than 1/3 the height of grass. Leaving grass longer allows for strong root development and less room for weeds.

A CITIZEN'S GUIDE TO NATIVE LANDSCAPING

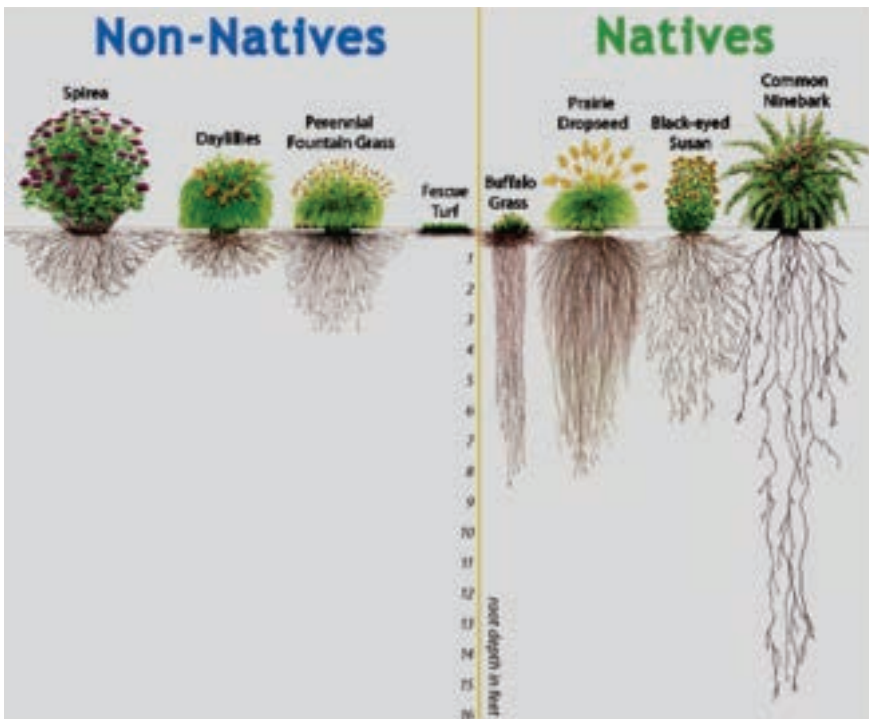


Many of the grasses planted most often for lawns aren't the best for protecting water quality. Native plants—those naturally found in southeast Michigan—actually help improve water quality, and they're an attractive alternative to Turfgrass. Native trees, shrubs, grasses and wildflowers encourage a healthier environment than non-natives or Turfgrass!

WHY SHOULD YOU PLANT NATIVE PLANTS?



While many non-native plants, such as the purple loosestrife, are colorful and attractive, they are considered "invasive" because they outcompete native species and disrupt wildlife habitat. Native plants, on the other hand, offer nesting sites and food for wildlife.



A garden of prairie wildflowers, for instance, will attract butterflies and hummingbirds to your backyard.

Best of all, natives are adapted to our local soils and climate, so they do not need excessive watering and require very little fertilizer or pesticides, which can pollute our waterways.

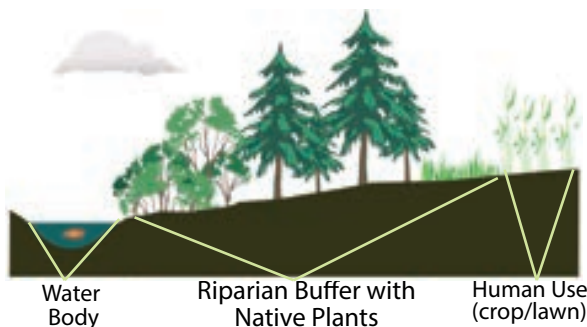


Native plants also have very deep roots that once established, prevent soil erosion and are very drought resistant. These are perfect for your riparian buffer.

Do you live next to a Lake, River or Stream? Consider using native plants to create a riparian buffer and help protect the water quality!

What is a riparian buffer?

A riparian buffer is an area adjacent to a body of water that is fully or partially protected from human disturbances and has the ability to safe guard the water body from pollution and/or habitat degradation.



- A riparian buffer is designed to:
1. Discourage geese from your lawn
 2. Reduce pollution runoff and imperviousness
 3. Create habitat
 4. Provide flood control

Native Lakescapes LLC. is a great resource within the Clinton River Watershed for designing natural and native shorelines. Visit their website for more information:
<http://www.nativelakescapes.com/>



WHAT PLANTS ARE NATIVE TO SOUTHEAST MICHIGAN?



Here is just a small sampling of plants native to southeast Michigan that are usually easy to find at native plant nurseries and suppliers.

- Ferns – Christmas, Maidenhair, Cinnamon, Ostrich, Royal, and Lady
- Grasses – June grass, Big bluestem grass, Purple love grass, Cord grass, and Wool grass
- Shrubs – Blueberry, Buttonbush, Dogwood, Fragrant sumac, Elderberry, Michigan holly, Serviceberry, Spicebush, and Raspberry
- Trees – American beech, Blackgum, Black walnut, Canada hemlock, Douglas fir, Flowering dogwood, Hawthorn, Hickory, Maple (Red, Sugar), Oak (Red, White), Ohio buckeye, Pawpaw, Sycamore, Tulip tree, White pine
- Wildflowers – Anemone, Black-eyed Susan, Blazing star, Columbine, Coral bells, Purple coneflower, and Woodland poppy



Lady Fern



Blazing Star



Dogwood

Anemone



Big Bluestem Grass



Coral Bells



For more information on Native Plants and Landscaping:

MSU Extension Master Gardener
<http://mg.msue.msu.edu/>

Michigan Native Plant Nursery
<http://www.nativeplant.com/>

EPA Landscaping Tips
<https://www.epa.gov/watersense/landscaping-tips>

MSU Extension Native Plant Hub
<https://www.canr.msu.edu/nativeplants/index>

Wild Ones
<http://www.wildones.org/>





CRWC

CLINTON RIVER WATERSHED COUNCIL

Paddling Safety Tips

One of the ways to ensure the protection of our lakes, rivers and streams is to get out and enjoy them! Summer is a great time to explore your watershed, and with the popularity of recreating on the Clinton River and adjacent tributaries increasing each year, you don't want to be the last one on the river.

The paddling conditions on the Clinton River are changing constantly due to weather and other environmental factors, and several sections are better suited towards more experienced kayakers.

Before you decide to venture out on to the water, it is important to educate yourself on some of the dangers of the river, and make the necessary preparations.



Visit our website to check out our [paddling map!](#)

Use the legend on the left side of the map to turn data layers off or on that give information about locations to launch, canoe and kayak liveries, river difficulty, recommended fishing locations, and more. Check out the map here:

[http://www.crwc.org/paddling/.](http://www.crwc.org/paddling/)

Recreating in your watershed



ALWAYS PADDLE WITH THE PROPER EQUIPMENT.

Life vests, helmets, a whistle, a first aid kit and a phone are standard equipment.



NEVER PADDLE ALONE.

Always paddle with at least one other person, and do not become separated.



BE AWARE OF STREAM FLOW.

Check stream flow at the USGS gauge nearest to your intended trip. Visually check stream flow before you embark; if the river is too fast for your comfort level, wait until it recedes.



BE AWARE OF THE WATER TEMPERATURE.

Cold water is extremely dangerous. Learn about protecting yourself from hypothermia.



BE AWARE OF THE WEATHER.

Conditions can change rapidly. Be aware of forecasts and do not go out during thunderstorms or other adverse weather events. Stay alert to changing weather conditions.



BE AWARE OF THE DAYLIGHT.

Make sure you have enough daylight to comfortably finish your trip.



BRING A SPARE CHANGE OF CLOTHES IN A DRY BAG.

It is very likely you will get wet. Bring a spare change of clothes in a dry bag to avoid hypothermia.



WEAR PROPER FOOTWEAR.

Protect your feet from sharp river rocks; always wear footwear.



KNOW HOW TO SWIM.

Make sure you know how to swim before embarking on a river trip.



KNOW HOW TO GET HELP.

To get help, dial **911**. Bring a cell phone in a dry bag and make sure you are aware of your surroundings and can communicate your position to emergency responders.

A CITIZEN'S GUIDE TO RAIN GARDENS



For more information contact CRWC!

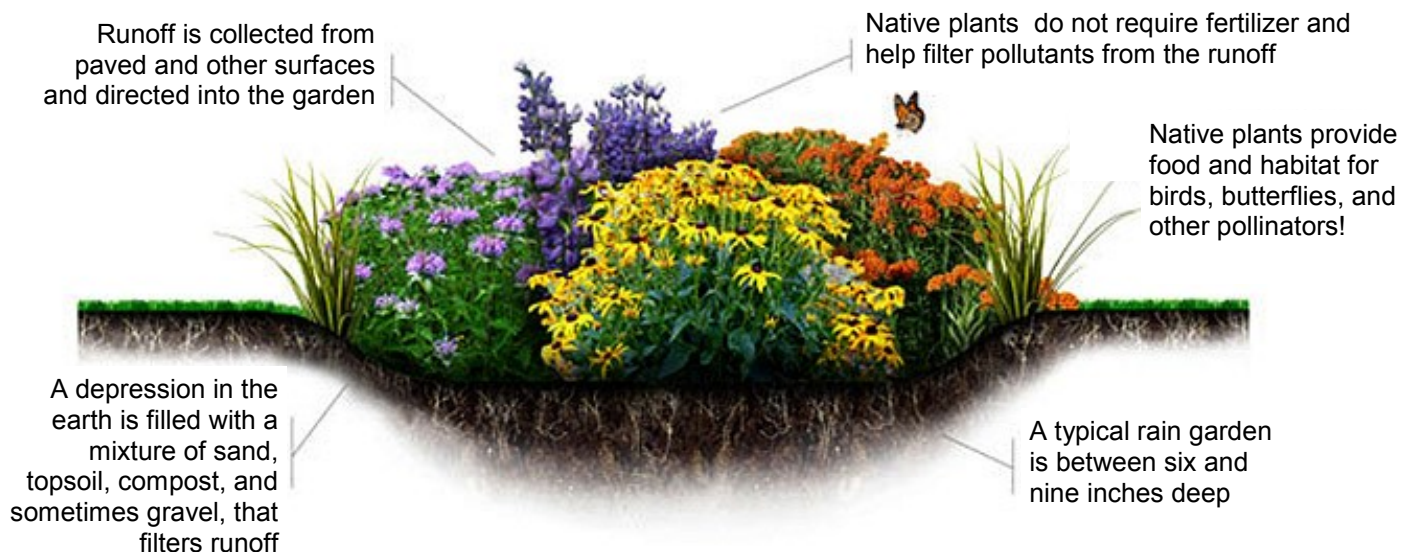
Phone: 248-601-0606

Email: contact@crwc.org

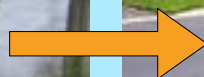
1115 W. Avon Road
Rochester Hills, MI 48309

Rain Gardens are beautiful landscaping features that manage your stormwater runoff. Their plants and soils absorb water runoff from roofs, parking lots, lawns and roads and help to filter out pollutants before they enter the rivers and streams. Rain gardens are an excellent way to boost your native plant populations as well! By planting a rain garden, you can help to protect local freshwaters by reducing and managing stormwater pollution on your property.

HERE IS A RAIN GARDEN:



USE A RAIN GARDEN TO TURN THIS ...



... INTO **THIS!**



THE “INS AND OUTS” OF RAIN GARDENS

CREATING A FUNCTIONAL DESIGN

1. **Put your rain garden in the right place** — Make sure that the slope of the area will direct water down into the desired location for your rain garden. Choosing an existing low area on your property is a good place to start.
2. **Size the rain garden correctly** — make sure that your rain garden can handle the amount of stormwater flowing into it.
3. **Evaluate existing soils** — soils must be able to filter and drain water easily such as sand, gravel and or regular potting soil. Clay is not good for rain gardens and will require some additional engineering.
4. **Create an attractive design** — select plants that are low-maintenance and native to your region. With a little research, it is possible to create a landscape design that is both beautiful and functional.

MAINTAINING A BEAUTIFUL RAIN GARDEN

Water — daily the first few weeks of planting. Then regularly water until plants are established. Make sure to water in periods of drought.

Weed — on a regular basis. Especially the first year. Avoid herbicides as they are detrimental to water quality.

Mulch — reduces weeding and watering and helps establish plants.

Keep salt and other chemicals OUT — salt destroys soil biology and damages plants. Chemical fertilizer and pesticides are also bad for water quality and are unnecessary when dealing with native plants. Keep these harmful products out of your rain garden.



USEFUL RESOURCES!

A guide to building a Rain Garden, complete with garden plans and plant lists for different levels of light and soil types on your property

<http://dnr.wi.gov/topic/shorelandzoning/documents/rgmanual.pdf>

Wildtype Native Plants in Mason, MI

<https://www.wildtypeplants.com>

The United States EPA has many good resources on Rain Gardens and Green Infrastructure

<https://www.epa.gov/soakuptherain/rain-gardens>



WHAT IS STORMWATER POLLUTION?

When rain falls and snow melts, the runoff produced picks up a variety of contaminants such as oil, metals, salts, pet waste, fertilizer, grass clippings as it flows over roofs, roadways, sidewalks and lawns. Stormwater runoff ultimately flows into storm drains.

HOW DO SCHOOLS CONTRIBUTE TO STORMWATER POLLUTION?

- Abundance of impervious surfaces
- Lawn care
- Litter
- Bus yards and maintenance garages

Remember: storm drains lead directly to our local rivers and streams.

BEST MANAGEMENT PRACTICES (BMP): Behaviors and practices used by individuals to prevent or reduce stormwater pollution impacts.



GO GREEN

- When re-paving parking lots, incorporate green islands with native plants and trees.



CLEAN UP

- Host clean up events with students, parents and teachers to pick up litter around the school.



PLANT POWER

- Allow mowed areas to grow, and install native plants to support wildlife and improve filtration of stormwater.



SLOW THE FLOW

- Direct downspouts to a raingarden or vegetated area to slow the flow of stormwater.



EDUCATE

- Include stormwater education in the classroom. Students can install a raingarden, plant native plants, or participate in a clean up activity.



SWEEP

- Sweep impervious surfaces like parking lots and garages to collect and dispose of salt and other debris.



STORE

- Practice good housekeeping such as storing chemicals indoors in regulated containers, correct labeling, and keeping a spill kit on hand.



CAPTURE

- Consider installing and maintaining catch basin filters.

A CITIZEN'S GUIDE TO WATERSHED FRIENDLY LAWN FERTILIZER



Over-fertilizing is a problem contributing to stormwater pollution in the Clinton River. Without realizing it, many landowners are applying fertilizers and pesticides when their lawns don't even need them! When applying fertilizer, it's important to know when it is needed and when it is not in order to avoid the excess fertilizer from entering the stormdrains and negatively affecting water quality.



DON'T GUESS... SOIL TEST!

Don't assume your plants need fertilizer. Perform a soil test. You'll save money and reduce the chance of over-applying. Michigan State University Extension offers easy-to-use soil nutrient testing boxes, and recommends a soil test every two or three years.

To find out more, check out:

Macomb County <https://msue.macombgov.org/>

[MSUE-Programs-AgricultureHorticulture](https://msue.macombgov.org/)

Oakland County <http://www.oakgov.com/msu/>

Clinton River Watershed council [http://](http://www.crw.org)

www.crw.org

HOW OFTEN, HOW MUCH?

It is possible to have a beautiful lawn by fertilizing only two or three times a year, or even not at all.

If you find you need to fertilize, you may choose to...

Apply twice a year: in late spring (late April or early May) and fall (September or October).

OR

Apply three times a year: in late spring (Memorial Day), early fall (Labor Day) and late fall (Thanksgiving)

Pointers for Pesticide Use

Correct watering, mowing and fertilizing habits can reduce many pest problems. But if you do choose to treat for insects, it is essential that you know your enemy before you apply pesticides! If possible, hand-pick the little buggers off the plants and identify the pest. The important part is to identify and treat only for the pests you have, at their most vulnerable stage.

For help identifying the bug that's been bugging you, check out the Michigan State University Pest Diagnostic website: www.pestid.msu.edu/

A general spraying of insecticide is ineffective, costly and may do more harm than good.

CHOOSING THE CORRECT FERTILIZER...

Use slow -release nitrogen fertilizers that provide a slow, steady source of nutrients for plants as well as low or no phosphorus fertilizers to help improve water quality. This also prevents the big spurt of growth common with synthetic fertilizers. Avoid “weed-and-feed” mixtures. These contain herbicides to control weed growth and are often applied where they aren’t needed.



EARTH-FRIENDLY FERTILIZERS

FOR WATER QUALITY PROTECTION – MARCH 2016

Recommended by SOCWA Healthy Lawns and Gardens Technical Advisory Committee

Criteria for designation as an earth -friendly fertilizer:

Low -phosphorus or no -phosphorus:

- Zero phosphorus
- Low -phosphorus manure or composted manure as defined in the Michigan Fertilizer Act

Slow -release nitrogen:

- Natural organic fertilizer; or
- Synthetic fertilizer with 40% or more water insoluble nitrogen (WIN). Or 40% of another controlled-release component

Fertilizers that are free of all pesticides including herbicides: no weed -and -feed.

BRAND NAME	N-P-K	% Slow -Release Nitrogen
ACO Fall Lawn Food	21-0-4	50%
Espoma Organic Lawn Food	9-0-0	84%
Fertrell Lawn Fertilizer – Custom Blend	5-0-5	70%
Grass Magic	15-0-7	70%
Jonathan Green Organic Lawn Fertilizer	10-0-1	95%
Safer Lawn Restore	10-0-6	76%
Milorganite	5-2-0	66%
Soil Science	5-0-7	High
Turf Nurture (small bag only)	15-0-7	75%

CORN GLUTEN PRODUCTS:

Bradford Organics - Luscious Lawn	9-0-0	85%
Espoma Organic Weed Preventer	9-0-0	91%
Jonathan Green Organic Weed Control	9-0-0	76%
Organica Lawn Booster	8-0-1	94%
Safe Lawn	9-0-0	91%

THE STATE OF MICHIGAN PHOSPHORUS FERTILIZER RESTRICTIONS FOR LAWNS

As of January 1, 2012, home and commercial lawn fertilizers containing phosphorus are subject to certain restrictions.

A person shall not apply any fertilizer with available phosphate (P2O5) to turf. Available phosphate may be applied at specified rates under the following instances:

When a soil test or plant tissue test indicates phosphorus is needed;

For new turf establishment using seed or sod;

A finished sewage sludge (biosolid), organic manure or a manipulated manure (like compost). The application rate is limited to 0.25 pounds of phosphorus per 1,000 square feet.

On golf courses whose manager(s) have completed a Michigan Department of Agriculture and Rural Development (MDARD) approved training program.

Local phosphorus fertilizer ordinances in existence before December 16, 2010 are grandfathered in.

Fertilizer cannot be applied to frozen soil or soil saturated with water.

Any fertilizer released onto a hard surface, such as a sidewalk or driveway must be cleaned up promptly.

The other phosphorus provisions in Public Act 299 include new definitions, setbacks from surface water, \$50 civil fines and outreach information.

For additional information, see <https://www.michigan.gov/mdard/plant-pest/fertilizer>

SOCWA Healthy Lawn Care Information

www.socwa.org/lawns_gardens.shtml



Call or email CRWC at:
248-601-0606 or contact@crwc.org
Office Hours: 9am -5pm, Mon -Fri
1115 W. Avon Rd.
Rochester Hills, MI 48309
www.crwc.org

APPENDIX E

Event Guides

Contents

River Day Guides for 2022 and 2023

Clinton Cleanup Guides for 2022 and 2023



ANNUAL RIVER DAY EVENT GUIDE



Thank You to Our Event Sponsors!



PREPADDLEBREWZA: *June 3rd, 6:00pm-9:00pm*
Blue Skies Brewery, Downtown Auburn Hills (3358 Auburn Road)
Join us at Blue Skies Brewery in Downtown Auburn Hills on Friday, June 3rd for all-you-can-eat pizza, a beer, cash bar, door prizes, and a donation to the Clinton River Watershed Council! \$25/person. Anyone is welcome to attend Prepaddlebrewza - you do not need to be a race participant to attend!
Register at <https://bit.ly/3wx8mV2>

PADDLEPALOOZA: *June 4th, 7:00am-12:30pm*
Riverside Park: 3311 Squirrel Ct., Auburn Hills 48326
It's time, once again, for the annual 8 mile Auburn Hills to Rochester Hills Paddlepalooza! Three events to choose from: Kayakers race (1 person), Canoeists race (2 person), or the Adventure Paddle (no race -no inflatables). A limited number of canoes and kayaks are available for rent, so don't delay. A hotdog lunch will be provided at the Rochester University Pavilion, just a short walk from where you exit the water.
Register at <https://bit.ly/3wx8mV2>
More information at <https://bit.ly/3yC8kOQ>

RAIN GARDEN MAINTENANCE:
June 4th, 9:00am-11:00am
Bay Court Park, Independence Township off of Andersonville Road
We will be weeding, mulching, and watering our existing rain gardens at Bay Court Park. Trash bags will be available. Water, gatorade, and snacks will also be provided.

CRWC TRASH RUN *June 10th, 9:00am-1:00pm*
Location TBD
Join CRWC and Clinton River Canoe and Kayak for an in-river clean up event. Volunteers will paddle down the Clinton River in canoes, picking up trash and debris. Registration is required, and volunteers must be at least 14 years old to participate.
Not recommended for those not comfortable maneuvering in the water. To register, visit <https://forms.office.com/r/wdVRC1F3X4>

AUBURN HILLS FISHING DERBY:
June 11th, 7:30am-10:30am
Riverside Park: 3311 Squirrel Ct, Auburn Hills, MI 48326
Join the City of Auburn Hills, Bass Pro Shops, Trout Unlimited & Detroit Area Steelheaders for the 18th Annual Fishing Derby. Kids 16 and under fish for rainbow trout. All anglers must bring their own equipment - NO fly rods, NO treble hooks or multi hooks. Catch and release only. For more information, contact Shawn Keenan at 248-364-6926 or skeenan@auburnhills.org or check the City of Auburn Hills website at www.auburnhills.org
Pre-registration required online at www.auburnhills.org

NEW HAVEN RIVER DAY CLEAN UP:
June 11th, 9:00am-1:00am
New Haven Village Hall (57775 Main Street)
Join the Village of New Haven for a group clean up. Volunteers will meet at the Village Hall at 9am. Please feel free to bring any equipment that you feel might be helpful. Additional equipment and light refreshments will be provided to volunteers. To register your group, contact the Village of New Haven at 586-749-5301 or Join the event on Facebook "Village of New Haven - River Day"

ART FISH FUN FESTIVAL: *June 11th, 11:00am-4:00pm*
Beaudette Park in Pontiac off of Orchard Lake Rd (786 Orchard Lake Rd)
Hosted by The Oakland County Water Resources Commissioner's Office, Pure Oakland Water, The Art Experience, and the City of Pontiac. A family friendly and FREE event that makes learning

about water fun through interactive art and education stations. The day kicks off with a park cleanup from 11am-noon. After, attendees will enjoy arts and crafts, games, face painting, live animals, bounce houses and so much more! BBQ lunch will be made available free of charge, guests can fish or learn to fish with Oakland County Water Resources Commissioner Jim Nash. Volunteers needed to help. Contact Alyssa Taube for more information at (248) 858-0678 or taubea@oakgov.com

CLINTON RIVER DAY *June 11th, 12:00pm-3:00pm*
Join us as we celebrate the Clinton River with fun, family-friendly activities. There will be an ice cream sundae bar, games, education stations, live animal presentations, macroinvertebrate exploration, and guided hikes! One lucky registrant will win a kayak! All ages. \$3 per resident / \$5 per non-resident. Children 2 and under are free.
People can register at <https://register.shelbytwp.org/> with code #RIVER.01

CLINTON TOWNSHIP RIVER DERBY:
June 11th, 6:00pm-7:30pm
Civic Center Pond, Clinton Township (40700 Romeo Plank Road)
If your child loves to fish, they cannot miss this event! We invite them to try and catch that big old elusive catfish or pile up the inches with a variety of pan fish! This event is celebrating Clinton River Watershed River Day and is a catch and release format. The contest is based on total inches caught and children do not need a fishing license to participate. Parents are welcome to assist, but children must reel in the fish. Prizes will be awarded, and everybody is eligible for door prizes. Register online at clintontownship.com/recreation or by visiting the Main Office at 40700 Romeo Plank Clinton Township, MI \$5.50 Resident // \$7.50 Non-Resident // Must Pre-Register dues to space available // Ages 16 & under // Bait Provided

BURGESS-SHADBUSH NATURE CENTER RIVER DAY CELEBRATION: *June 11th, 12:00pm-3:00pm*
Burgess-Shadbrush Nature Center, Shelby Township (4101 River Bends Drive)
It's time to celebrate the Clinton River with fun, family-friendly games, educational stations, live animal presentations and more. All ages are welcome to join us for guided hikes and macroinvertebrate exploration

SLOW ROW LO ANNUAL LAKE SIXTEEN CLEAN UP:
June 11th, 12:00pm-5:00pm
Lake Sixteen Boat Launch 1502-2102 Joslyn Rd, Orion Charter Township, MI 48360
Join us for our annual shoreline clean up. This cleanup is done via kayak or canoe. We paddle the perimeter of the lake and retrieved lost dog toys and other debris. Please meet at the public boat launch on Joslyn, south of Clarkston Rd. Each participant is required to pay Oakland County Parks user fee. Participants must also provide your own craft and PFD. If you have questions, please email Suzannealess@comcast.net or look up Slow Row LO on Facebook. We will paddle in most weather conditions; event will be cancelled due to high winds or lightning. Check SLOW ROW LO on Facebook for cancellation due to extreme weather.

CLINTON TOWNSHIP RIVER CLEAN UP:
June 11th, 10:00am-12:00pm
Budd Park, Clinton Township (19000 Clinton River Road)
Participants will meet at Budd Park in Clinton Township and help



with clean up along the banks of the Clinton River. Those that bring kayaks or canoes can get into the river and participate with clean up in the river. Pizza will be provided by the clerk. To register, email kaleigh@crwc.org

BROOKS, RIVERS & SEEDS...OH MY!:

June 11th, 11:00am-1:00pm

[Ray Township Library \(64255 Wolcott Road\)](#)

Join us at the Ray Township Public Library for a Children's Storytime followed by Native Seed Ball Making. Take your seed balls home, or come on a nature hike with us through the Ray Township Municipal Park and then into the Wolcott Mill Metropark where we will practice our native plant guerrilla gardening skills and throw your seed balls while we walk! We will walk down to the river where we will learn a little more about the North Branch and participants can partake in the free fishing weekend. We will have child-sized poles available for use. Register at <https://tinyurl.com/bersc95b>

CRWC FLY FISHING WORKSHOP:

June 12th, 9:00am-1:00pm

[Riverside Park, 3311 Squirrel Ct, Auburn Hills, MI 48326](#)

This is an event for the public of all ages and abilities to learn how to fly fish from the experts. Local chapters of Trout Unlimited will be here to walk you through the basics of how to fly fish or help refine your skills after a long winter season.

Not interested in fly fishing? There will also be informational booths set up by the Department of Natural Resources and CRWC staff for everyone to learn more about biodiversity that thrives in the Clinton River Watershed. Registration is only required for those wishing to learn how to fly fish. Register at <https://bit.ly/3Pn6o2g>

CRWC & PLANTS FOR ECOLOGY ANNUAL NATIVE PLANT SALE: June 12th 9:00am - 1:00pm

[CRWC Office, Rochester Hills: 1115 W. Avon Rd., Rochester Hills, 48309](#)

Support the Clinton River Watershed Council, Plants for Ecology and the watershed by purchasing native plants for your yard, or a friend's. Order online at <https://www.plantsforecology.com>

Sale runs June 4th through June 9th. Pick up is June 11th from 9am-1pm at the Clinton River Watershed Council, 1115 W Avon Rd. Rochester Hills. No plants for sale the day of.

This is a pre-purchase sale only.

Other Events //

BAY-RAMA FISHFLY FESTIVAL:

[Downtown New Baltimore](#)

The Bay-Rama Fishfly Festival is a fun-filled five-day event attended by over 50,000 people in downtown New Baltimore. We feature a large, clean midway, Festival Tent with live entertainment, Miss Bay-Rama Queen's Pageant, Kid's Day Fun, a large firework display on the waterfront, a spectacular parade along Green Street, and much more! For more information, visit www.bay-rama.com

FISHING BASICS: June 11th, 10:00am-12:00pm

[Kensington Metropark, West Boat Launch](#)

Come take advantage of Michigan's Free Fishing Weekend to spend a morning at the lake learning the basics of fishing. We'll discuss some of the fish species that can be caught in Kent Lake, as we learn how to properly bait a hook, cast a line, and reel in a catch. We will even show you how to hold a fish for that perfect photo opportunity! A fishing license is not required during this

weekend. All equipment and bait will be provided for the duration of the program. For ages 6 and up. \$6 per child, \$10 per adult and pre-registration is required by 4 p.m. the day before the program. Register at <https://bit.ly/3wwtLxO>

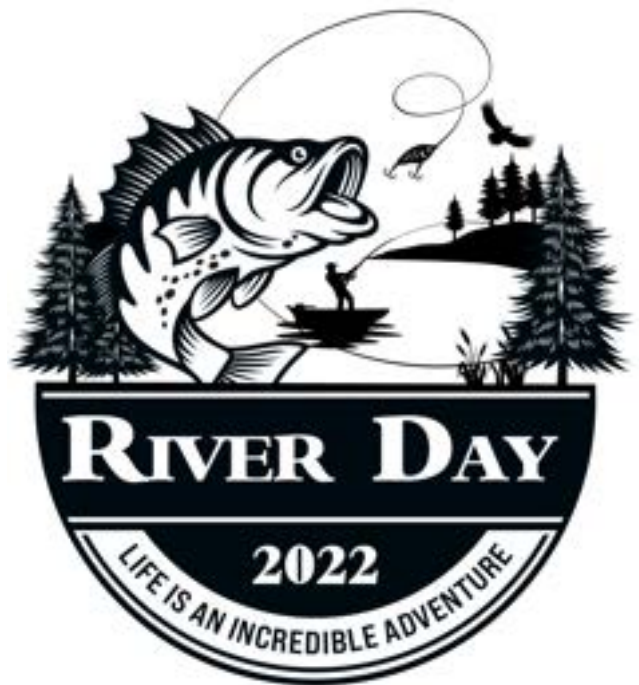
POND DIPPING: June 11th, 11:00am-12:00pm

[Indian Springs Metropark, Park Office Picnic Shelter](#)

What lives beneath the surface of the pond? We'll use dip nets and tubs to carefully catch and release some of the smallest pond creatures that spend all or part of their life in the water. We'll look to see what they can tell us about how healthy the pond is. Expect to walk approximately 1/2 mile on our nature trails. For ages 5 and up. Children must be accompanied by a registered adult. \$3 per child, \$5 per adult. Pre-registration is required by 4 p.m. the day before the program. Register at <https://bit.ly/3wwtLxO>

2022 RIVER DAY LOGO

Contest Winner!



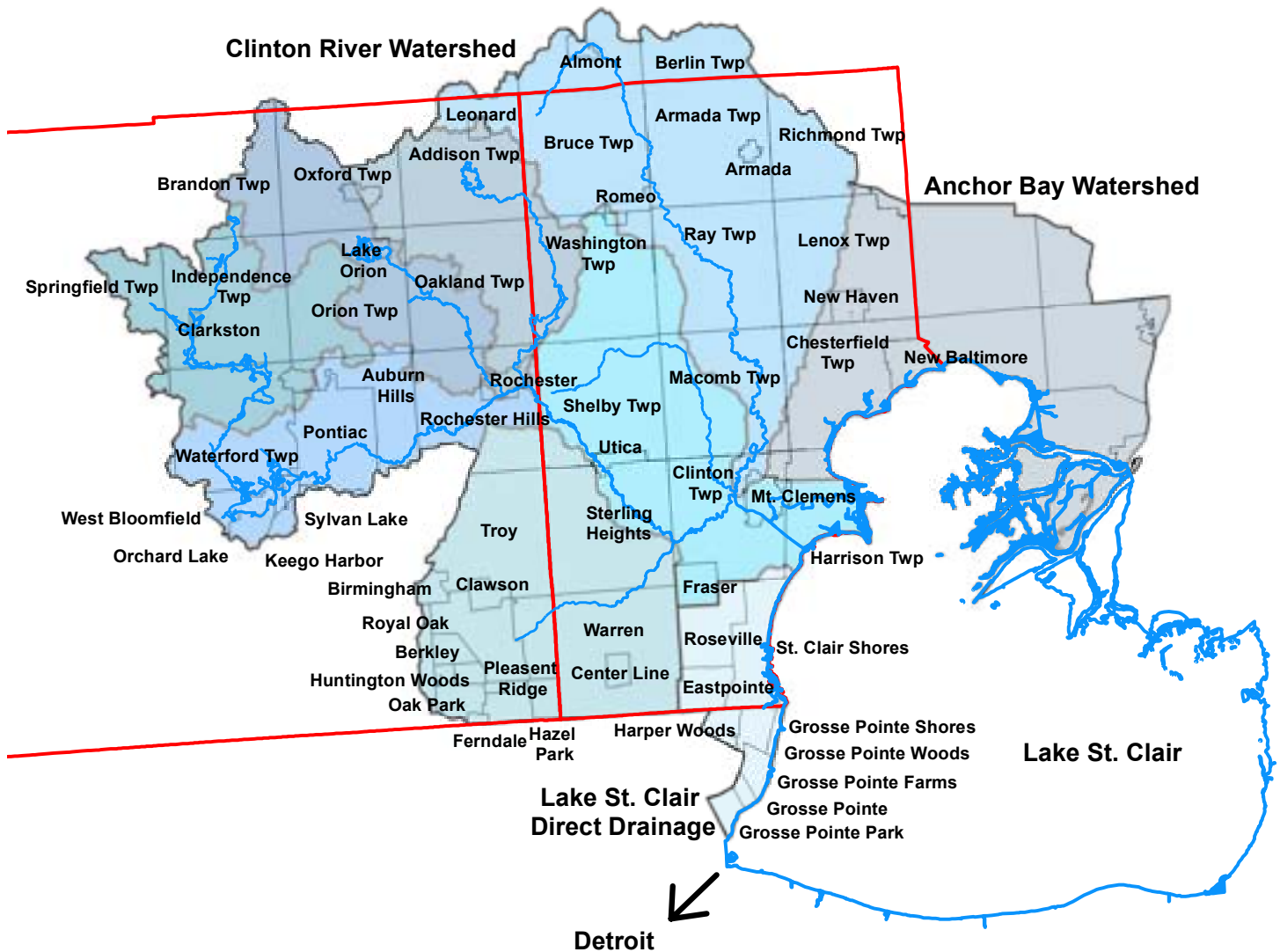
CRWC Would Like to Congratulate Katie Griffen!

Here is what Katie had to say about her design:

"When I was younger, I used to think that my house was the center of the world. As I got older, I began to understand that there were bigger things happening outside of my tiny bubble. I started learning about watersheds and how they connect us all. Regardless of where we live, we're always a part of a watershed. It's amazing to think about how our actions (or inaction) in one area can impact people miles away. I'm grateful for my education on watersheds because it's helped me become more mindful of my own actions - both at home and beyond. Every day, I try to do my part to help keep our watershed. When we take care of our watersheds, everything thrives!"



THE CLINTON RIVER WATERSHED



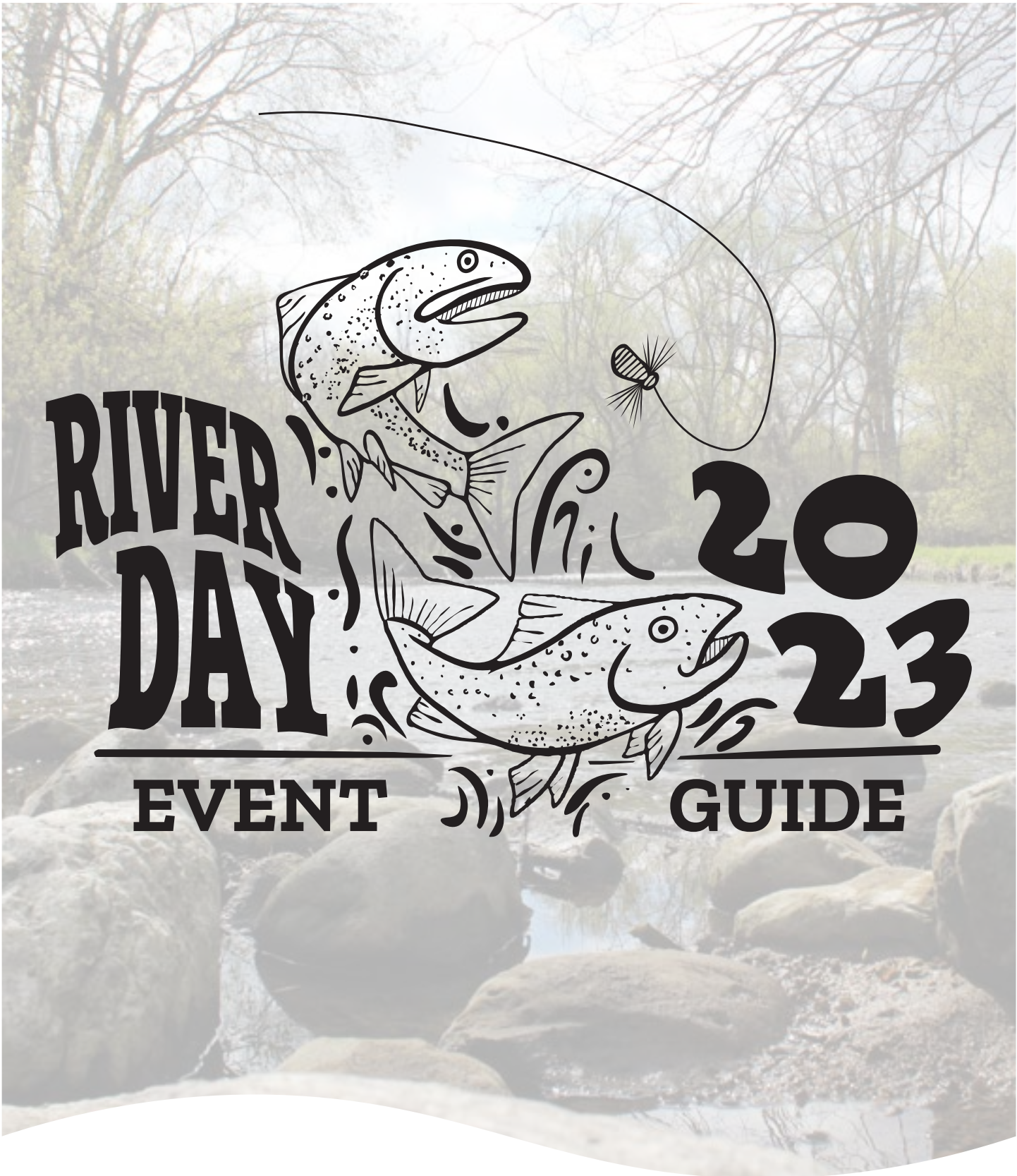
Visit us at CRWC.org

1115 W Avon Road / Rochester Hills
248-601-0606 FAX: 248-601-1280

Clinton River Watershed Council
@ClintonRiverWatershed

The Mission of the Clinton River Watershed Council (CRWC) is to protect, enhance and celebrate the Clinton River, its watershed and Lake St. Clair.





RIVER DAY

2023

EVENT

GUIDE

ABOUT RIVER DAY

River Day is designed to encourage appreciation and recreational use of the waterways of the Clinton River and Lake St. Clair. We celebrate the leadership of local citizens, organizations, and communities whose efforts are critical to protecting and enhancing the overall quality of the Clinton River watershed.

River “Day” began as a single program day that aligned with Michigan’s Free Fishing Weekend. Due to high interest and participation it quickly expanded to include events hosted throughout the month of June.

This June, River Day continues. Individuals, businesses, community groups, and local governments across the watershed are joining forces on to enhance and celebrate the Clinton River and Lake St. Clair. Activities range from nature hikes, fishing derbies, and outdoor education to river clean-ups, invasive species pulls, and native landscaping.

CONTRIBUTING ORGANIZATIONS

Events and programs from a variety of sources within the watershed are compiled by the Clinton River Watershed Council. Through this guide, popular opportunities that protect, enhance, and celebrate the Clinton River watershed are brought together in one place to help people access opportunities in their region.

This year, Friends of the Detroit River was instrumental in contributing events for the River Day Event Guide. We offer them thanks for their dedicated support.



SPONSORS

River Day would not be possible without the generous support of our sponsors. We offer them thanks for their contributions toward River Day and protecting, enhancing and celebrating the Clinton River watershed and Lake St. Clair.



DESIGN CONTEST

The cover art on this guide was created by Adam Awdish as part of the River Day Design Contest. The contest encouraged local artists to get involved in the promotion of River Day and celebrating the natural world through art.

Contestants at various skill levels throughout the watershed make submissions in a variety of formats. Submissions ranged from sketched line work to charcoal etchings to professionally designed vector art. For his submission, Adam used an iPad and app to create a digital sketch.

In Adam’s artist statement, he writes about his experience working in multiple mediums. “From photography to painting, charcoal art to mixed

media, my art spans across various mediums and forms, all of which focus on the captivating power and beauty of nature. I’m constantly exploring new artistic styles and messages, using Michigan’s landscapes as my muse.”

Designs were voted on at CRWC’s Annual Meeting on April 20, 2023 and Adam’s design received more than half of the votes. Adam said “I am thrilled to have won 2023 River Day logo contest, and even more honored that my illustration will represent the 2023 River Day events. It brings me joy to know that my art will be used to support the efforts of the CRWC and their dedication to preserving and protecting Michigan’s natural resources.”

EVENTS

Learn more about River Day events at:

CRWC.ORG/EVENTS/COMMUNITY/RIVER-DAY

PREPADDLEBREWSA

June 2, 2023 // 6:00 p.m. - 9:00 p.m.
Blue Skies Brewery • Auburn Hills

Join us at Blue Skies Brewery in Downtown Auburn Hills on Friday, June 2, for all-you-can-eat pizza, a beer, cash bar, and door prizes! All for a good cause - to raise funds for the Clinton River Watershed Council, which keeps our river healthy and clean! Register for \$25 per person. Anyone is welcome to attend Prepaddlebrewza - you do not need to be a race participant to attend!



Register at auburnhills.org/community/downtown/paddlepalooza/index.php.

BUDD & CANAL PARK RIVER CLEAN UP

June 3, 2023 // 9:00 a.m. - 12:00 p.m.
Budd Park • Clinton Township

Participants can bring their own canoes or kayaks to work in the Clinton River to remove trash and debris. Those that do not have their own vessel can help with clean-up along the shore of the river. Pizza, water, t-shirts, gloves provided. Waterproof boots, long sleeved shirts, and comfortable pants are highly recommended. Register at: [WHERE?](#).

PADDLEPALOOZA

June 3, 2023 // 7:00 a.m. - 12:30 p.m.
Riverside Park • Downtown Auburn Hills

It's time for the annual 8-mile Auburn Hills to Rochester Hills Paddlepalooza! Three events to choose from: the Kayakers race (1 person), the Canoeists race (2 people), or the Adventure Paddle (no race -no inflatables). Registration is required and a limited number of canoes and kayaks are available for rent, so don't delay.



Register at auburnhills.org/community/downtown/paddlepalooza/index.php.



CRWC NATIVE PLANT SALE

June 4 - June 9
CRWC office • Rochester Hills

Support the Clinton River Watershed Council, Plants for Ecology, and the watershed by purchasing native plants. Order online at plantsforecology.com. The sale runs from June 4 to June 9. Order pickup is on June 11 from 9:00 a.m. - 1:00 p.m. at the Clinton River Watershed Council, 1115 W Avon Rd. Rochester Hills. No plants will be for sale during pickup. This is a pre-purchase sale only.



PUDDLE JUMPERS

June 9, 2023 // 10:30 a.m. - 11:30 a.m.
Wint Nature Center • City of the Village of Clarkston

Children ages 3-6 can enjoy nature fun as they increase their love for the great outdoors. A naturalist will engage children with a story, nature talk and related activity. Each child will also make a craft to take home. June's topic is Pollinators. Call [\(248\) 858-0916](tel:2488580916) weekdays to register.

TRASH RUN

June 9, 2023 // 9:00 a.m. - 1:00 p.m.
Route and location provided after registration

Join CRWC and Clinton River Canoe and Kayak for an in-river clean-up event. Volunteers will paddle down the Clinton River in canoes, picking up trash and debris. Registration is required. Volunteers must be at least 14 years old to participate. This event is not recommended for those not comfortable maneuvering in the water.



Register bit.ly/3NKxodB.

SLOW ROW LO - RIVER DAY CLEAN UP

June 10, 2023 // 12:00 p.m.
Metamora-Hadley State Recreation Area

Slow Row Lo is a group of community Paddlers from the Lake Orion, Oxford, and Rochester areas. They are hosting a paddling clean-up on the lake at the Metamora Hadley Recreation Area at one of their scheduled paddles for the season. Bring your own canoe or kayak. No registration required.

RIVER DAY @ DINO HILL

June 10, 2023 // 10:00 a.m. - 2:00 p.m.

Dinosaur Hill Nature Preserve • Rochester Hills

Meander the trails and nature center at Dinosaur Hill Nature Preserve to find activity stations exploring macroinvertebrates, invasive species, fish, & more! You can even create a special river day craft. No registration required.

ART FISH FUN

June 10, 2023 // 11:00 a.m. - 4:00 p.m.

Beaudette Park • Pontiac

Hosted by the Oakland County Water Resources Commissioner's Office, Pure Oakland Water, The Art Experience, and the City of Pontiac, this family friendly and free event that makes learning about water fun through interactive art and education stations. The day kicks off with a park clean-up from 11:00 a.m. to noon.

After the clean-up, attendees will enjoy arts and crafts, games, face painting, live animals, bounce houses, and so much more! A BBQ lunch will be made available free of charge and guests can fish or learn to fish with Oakland County Water Resources Commissioner Jim Nash.

Learn more at artfishfunfestival.com.



BOOKS, RIVERS, AND FISH...OH MY!

June 10, 2023 // 12:00 p.m. - 1:00 p.m.

Ray Township Public Library • Ray Township

Join the Ray Township Public Library for a quick story, followed by a hike to the river and some fishing fun! Bring a pole or borrow one of ours (kid sized) and partake in free fishing weekend.

Sign up to let them know you're coming at: tinyurl.com/booksriverfish.



TURTLE TREK

June 10, 2023 // 1:00 p.m. - 2:30 p.m.

Lake St. Clair Metro Park • Harrison Township

Turtles are one of Southeastern Michigan's most interesting residents. Hear all about their relation to dinosaurs, unique adaptations, and get up close with some of the nature center's turtles. After the animal meet and greet you'll go for a hike through the marsh to find turtles out in the wild. This event is appropriate for all ages. Registration is \$3 per child and \$5 per adult, children under 2 are free!

Pre-registration is required by 4:00 p.m. June 9. Register at: bit.ly/3MkyzQ2.



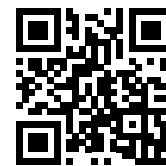
OSPREY HIKE

June 10, 2023 // 11:00 a.m. - 12:30 p.m.

Stony Creek Metropark, Nature Center • Shelby Township

Did you know that Ospreys suffered the same fate as Eagles and other birds of prey because of DDT insecticide use in the 1960s and early 1970s? Learn about the re-introduction of Ospreys to Stony Creek and other Metroparks beginning in 1999. From Kensington to Stony Creek, these birds have made a tremendous comeback. Learn why they are called fish-hawks and how they've adapted to living with people. You will then take a walk to the Inwood parking lot to view an active nest! This program is for ages 7 and up. Children must be accompanied by a registered adult.

Register for \$5 per adult and \$3 per child. Pre-registration is required by 4:00 p.m. June 9. Register at bit.ly/41tTiow.



CRWC WATERCRESS PULL

June 10, 2023 // 9:00 a.m. - 12:00 p.m.

Clinton River Watershed Council • Rochester Hills

Are you interested in removing non-native species from a local river? We need your help to clean up non-native watercress behind the Clinton River Watershed Office in Avon Creek! Waders will be provided. Walk-ins are welcome!

CLINTON RIVER DAY CLEAN-UP

June 10, 2023 // 2:00 p.m. - 4:00 p.m.

Burgess-Shadbush Nature Center • Shelby Township

Burgess-Shadbush Nature Center needs your help at a Clinton River clean-up! In partnership with the Clinton River Watershed Council, they are seeking volunteers to help remove trash around this beautiful waterway as they prepare the park for major upgrades. You can celebrate your hard work with ice cream and while they share details about the upcoming project that will make the park universally accessible to all water lovers. Meet at the River Bends Park - Fishing Site (49354 Ryan Rd) at 2:00 p.m. Free pre-registration is required to ensure they have enough supplies. A limited quantity of dairy/gluten free ice cream will be available, first come first served.

Register at: register.shelbytwp.org (RIVER.01).



CLINTON TOWNSHIP RIVER DERBY

June 10, 2023 // 6:00 p.m. - 7:30 p.m.

Clinton Township Civic Center - Clinton Township

If your child loves to fish, they cannot miss this event! The Clinton Township Civic center invites your family to go fishing at their children's River Derby.

The contest is based on total inches caught, whether that be the elusive giant catfish or a variety of panfish. A fishing license is not required to participate. Parents are welcome to assist, but children must reel in the fish. Catch and release only. Prizes will be awarded and everybody is eligible for door prizes. The cost to participate is \$7.00 for residents and \$9.50 Non-Resident. Must Pre-Register due to space available. This event is for people 16 years old & under.

Register online at register.clintontownship.com/ViewCourseActivityDetails.aspx?id=C3518 or by visiting the Main Office at 40700 Romeo Plank Clinton Township, MI



GO FISH!

June 11, 2023 // 9:00 a.m. - 11:00 a.m.

Marshbank Park • West Bloomfield Township

Join West Bloomfield Parks and Recreation on their fishing pier on Cass Lake to share in this great outdoor pastime! Never been fishing before? No problem! They will have staff on hand with a limited number of fishing poles provided for hands-on instruction to get you and your child started. Win a fishing themed prize if you catch the smallest or the largest fish! A simple craft and game will be available in case the fish aren't biting. Special guest; Mike McKinstry of "The Bassquatch Hunter" TV show, will be sharing great fishing tips! This program will be catch and release of ALL fish, so bring your camera to document your successes! This event is on the DNR's free fishing weekend, so no fishing license is required.

Register at: wbparks.org/event/go-fish/2023-06-11/.



EAGLES BY WAGON RIDE

June 11, 2023 // 1:00 p.m. - 2:30 p.m.

Stony Creek Metropark, Nature Center • Shelby Township

Learn the history of the marvelous comeback of bald eagles in the state of Michigan. Participants will meet at the Inwood Rustic Trail parking lot for a short wagon ride to the nesting site. This Eagle viewing tour is for those who don't want to walk that far but would still like to see where they are nesting. Bring binoculars if you have them. A limited supply will be available to borrow. This event is for individuals 18 years of age and older.

Register for \$5 per adult Pre-registration is required by 4:00 p.m. on June 10. Register at bit.ly/41BucVa.



BAY-RAMA FLYFISH FESTIVAL

June 21-25, 2023

Downtown New Baltimore

The Bay-Rama Fishfly Festival is a fun-filled five-day event attended by over 50,000 people in downtown New Baltimore. They feature a large, clean midway, a festival tent with live entertainment, Miss Bay-Rama Queen's Pageant, Kid's Day Fun, a large firework display on the waterfront, a spectacular parade along Green Street, and much more!

Learn more at bay-rama.com.



AUBURN HILLS FISHING DERBY

June 11, 2023 // 7:30 a.m. - 11:00 a.m.

Riverside Park • Auburn Hills

Join The City of Auburn Hills, Bass Pro Shops, Trout Unlimited & Detroit Area Steelheaders for the 18th Annual Fishing Derby. Children and youth (16 years old and under) fish for rainbow trout. All anglers must bring their own equipment. NO fly rods, treble hooks, or multi hooks are allowed. Catch and release only.

For more information and to register, visit auburnhills.org



LITTLE CRITTERS: FANTASTIC FROGS

June 24, 2023 // 10:00 a.m. - 11:00 a.m.

Lake St. Clair Metro Park • Harrison Township

This class for our youngest learners will ignite excitement for nature by focusing each month on a well-known animal, plant or natural occurrence. Through stories, games and nature play, kids will collect information about these fun topics. With this new knowledge, kids and families will gain confidence with outdoor nature play and experience the joy and wonder of nature.

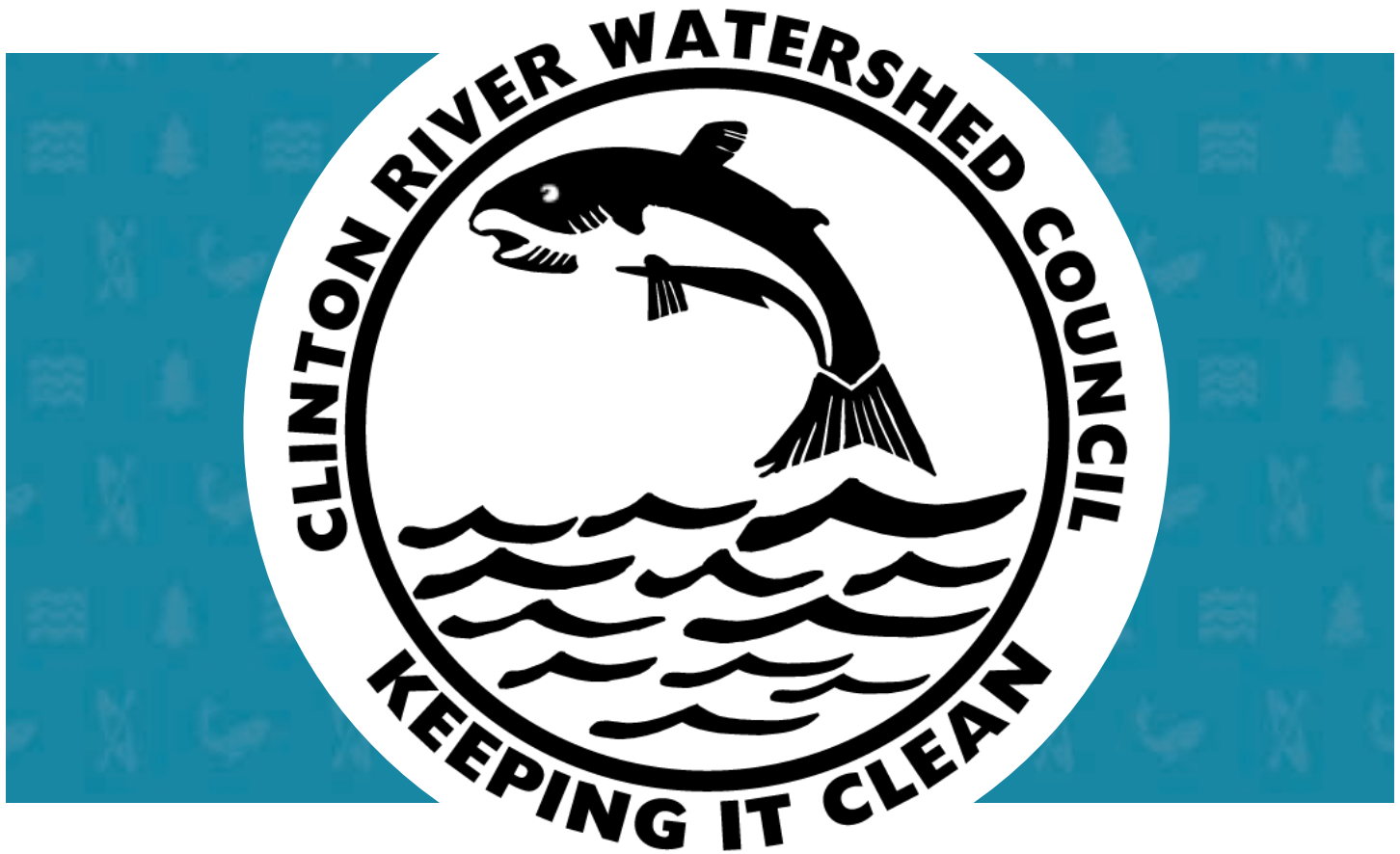
This event is for children 3-6 years old. Children must be accompanied by a registered adult. Register for \$3 per child and adults are free! Pre-registration is required by 4:00 p.m. on June 23.

Register at bit.ly/3MgaRnV.





21ST ANNUAL CLINTON CLEANUP EVENT GUIDE



Thank You to Our Event Sponsors!



TRASH RUN IN STERLING HEIGHTS:

September 16, 9:00am-1:00pm

Sterling Heights

Join the CRWC and Clinton River Canoe and Kayak (CRCK) for a trash run of the Clinton River! Volunteers will work in groups of two in canoes paddling down the Clinton River and picking up trash along the way. Wear comfortable clothes, sunscreen, and bug spray. Bring plenty of water and a snack.

Please be advised that depending on water levels and recent rain events, the water can move quickly in some areas and be difficult for a beginner to navigate. This stretch of the river is recommended for individuals with paddling experience and not for anyone under the age of 14. Canoes will be provided by CRCK. Exact paddling route will be determined week of, but will start in the Sterling Heights vicinity. Registration is REQUIRED to reserve a canoe and receive meeting location.

CLEAN UP OF THE CLINTON RIVER AT HAWTHORNE PARK IN PONTIAC:

September 18, 9:00am-12:00pm

Hawthorne Park, Pontiac (1400 Telegraph Rd.)

Join Genisys Credit Union for a clean up at Hawthorne Park in Pontiac. To register, email jgettel@genisyscu.org.

CLEAN UP OF THE CLINTON RIVER AT BEAUDETTE PARK IN PONTIAC:

September 17, 9:00am-12:00pm

Beaudette Park, Pontiac (786 Orchard Lake Road)

Join Genisys Credit Union for a clean up at Beaudette Park in Pontiac. To register, email jgettel@genisyscu.org.

CLEAN UP OF THE CLINTON RIVER AT HERITAGE PARK IN UTICA:

September 17, 9:00am-12:00pm

Heritage Park, Utica (44505 Van Dyke Ave)

Join Genisys Credit Union for a clean up at Heritage Park in Utica. To register, email jgettel@genisyscu.org.

RED LOTUS CLINTON RIVER CLEAN UP:

September 17, 10:00am-12:00pm

Eagles Landing, Rochester Hills

Join Red Lotus for a river clean up at Eagle's Landing. Bring a towel, change of clothes and water. If the water levels are too high, it will be too dangerous to go into the river and we would cancel. To register, email brian@redlotusyoga.com or call at 248.376.1239.

COMMUNITY CLEAN UP OF MURPHY PARK:

September 23, 1:00pm-3:00pm

Murphy Park, Pontiac (Martin Luther King Jr Blv S & Osmun St.)

Oakland County Water Resources Commissioner's Office staff, Reroot Pontiac, and community members team up to clean up Murphy Park in Pontiac! Volunteers will receive a free T-shirt, and the challenge of filling up an ENTIRE 3 cubic yard Bagster with collected refuse. To register, email taubea@oakgov.com



BUDD PARK TO CANAL PARK CLEAN UP:

September 24, 9:00am-12:00pm

Budd Park, Charter Township of Clinton (19000 Clinton River Rd.)

Join Clinton Township, CRWC, Clinton Township Clerk Kim Meltzer and Clinton Township Beautification Committee to clean up the Clinton River and surrounding areas from Budd Park to Canal Park in Clinton Township. Registration is REQUIRED. Email k.meltzer@clintontownship-mi.gov.

RIVER WOODS PARK AND SKATE PARK CLEAN UP:

September 17, 9:00am-12:00pm

River Woods Park, Auburn Hills (300 River Woods Drive)

Join the City of Auburn Hills in cleaning up River Woods Park, Skate Park, and the Clinton River. Volunteers are advised to wear work clothes and sturdy shoes. Advance notice of participation is appreciated but not required. To register, email skeenan@auburnhills.org or call at 248.364.6929

SIERRA CLUB ROCHESTER ECOS CLEAN UP:

September 17, 10:00am-12:00pm

NW Corner of Giddings and Perry W of I-75, S of Walton, Pontiac

As part of the 2022 Clinton Clean Up Day sponsored by the Clinton River Watershed Council, Sierra Club Rochester ECOs is organizing a river clean up event in Pontiac. We are going back to one of our Adopt-A-Stream monitoring locations where we have found a fair amount of garbage polluting the riverbank. Our cleaning efforts during previous years have had a positive impact on the area and we'd like to continue this work. You can make a difference in our water quality and the health of the Clinton River. Join us! NW Corner of Giddings and Perry W of I-75, S of Walton Pontiac, MI. Parking: Auto Zone parking lot across the street on Perry St. Bring your water bottle to stay hydrated and bug spray. To register, email rochesterecos@gmail.com.

City of Rochester Clean Up:

September 17, 9:00am-11:30am

Clinton River Trail Riverwalk

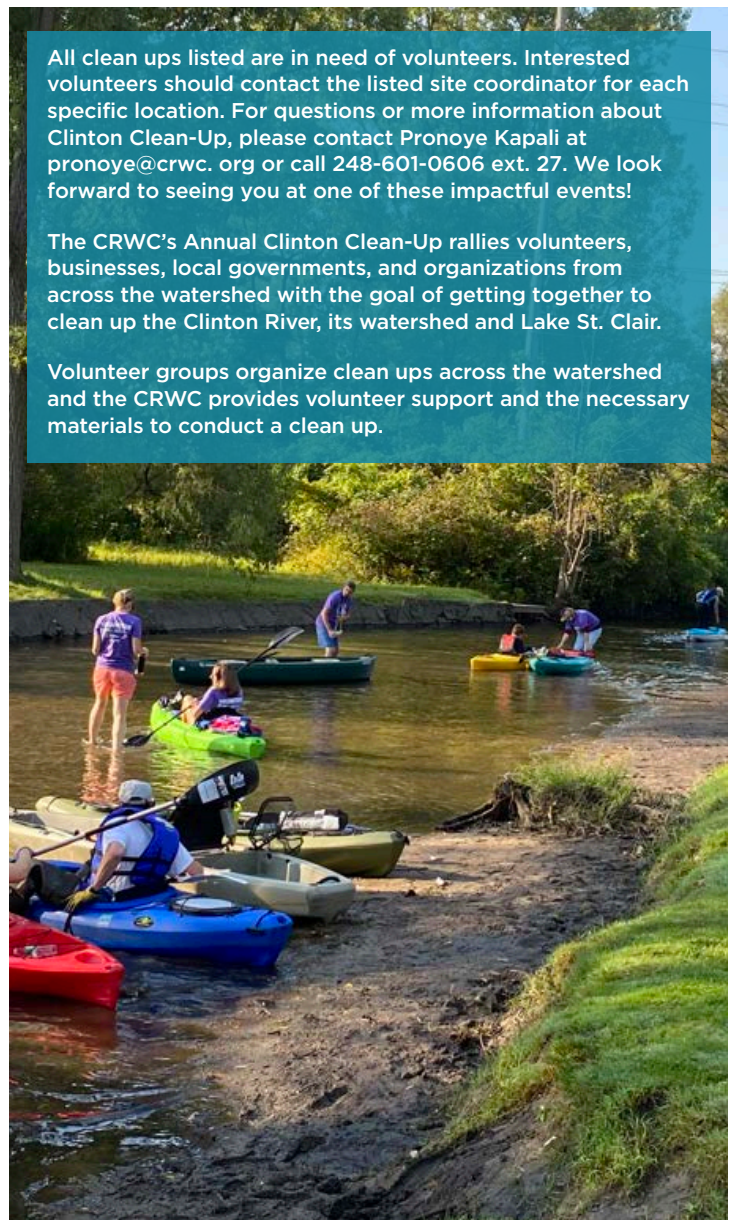
Trash and debris pickup at the Riverwalk and Clinton River Trail and Municipal Park. We will meet at the grassy lot across from the Rochester Fire Station on 2nd Street (2nd Street / Mill Street). For more details, contact Laura Gruzowski at lgruzowski@dlz.com



All clean ups listed are in need of volunteers. Interested volunteers should contact the listed site coordinator for each specific location. For questions or more information about Clinton Clean-Up, please contact Pronoye Kapali at pronoye@crwc.org or call 248-601-0606 ext. 27. We look forward to seeing you at one of these impactful events!

The CRWC's Annual Clinton Clean-Up rallies volunteers, businesses, local governments, and organizations from across the watershed with the goal of getting together to clean up the Clinton River, its watershed and Lake St. Clair.

Volunteer groups organize clean ups across the watershed and the CRWC provides volunteer support and the necessary materials to conduct a clean up.



THE CLINTON RIVER WATERSHED



The mission of the Clinton River Watershed Council (CRWC) is to protect, enhance and celebrate the Clinton River, its watershed and Lake St. Clair.

Visit us at CRWC.org

📍 1115 W Avon Road / Rochester Hills
📞 248-601-0606 📠 FAX: 248-601-1280

📘 Clinton River Watershed Council
📷 @ClintonRiverWatershed


CLINTON RIVER WATERSHED COUNCIL

Clinton Clean-Up

2023 **EVENT GUIDE**



📍 1115 W Avon Road, Rochester Hills
☎ 248-601-0606 🌐 crwc.org
f Clinton River Watershed Council
📷 @clintonriverwatershed

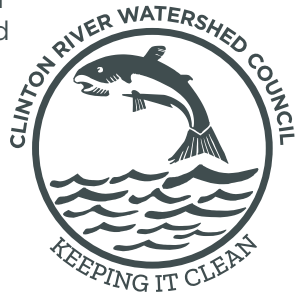
2023 CLINTON CLEAN-UP

WHAT IS THE KEEPING-IT-CLEAN PROGRAM?

The Keeping-It-Clean Program encourages watershed residents to directly get involved in improving the health and natural beauty of their watershed by participating in regularly scheduled over-land and in-water trash cleanups.

Keeping-It-Clean includes:

- Weekly Clean
- Trash Runs
- Private Clean-Ups
- Clinton Clean-Up



This guide includes information about Clinton Clean-Up, but more information about other Keeping-It-Clean events can be found at [CRWC.org](https://www.crowc.org) under **Events** → **Keeping-It-Clean**.



ABOUT CLINTON CLEAN-UP

The Clinton River Watershed Council's 22nd annual Clinton Clean-Up rallies volunteers, businesses, local governments, and organizations throughout the watershed to conduct a large clean-up effort throughout the watershed. Together, we remove trash and debris from local neighborhoods, parks, and green spaces.

Clinton Clean-Up consists of both public and private clean-ups led by various organizations. All public clean-ups (listed on the next page) are in need of volunteers to help improve the health and quality of our waterways.

Interested volunteers should contact the listed site coordinator for each specific location to register. Prior registration allows CRWC and site leaders to ensure the proper amount of grabbers, trash bags, gloves, and t-shirts are prepared for each location.



CLEAN-UP DRESS CODE

- Closed-toe shoes are required for your safety.
- No flip-flops, sandals or open-toed shoes unless operating a kayak.
- Wear clothes that can get dirty.
- Be mindful of the weather and dress accordingly.
- For hot days, we suggest bringing a good hat and an extra shirt.
- Bringing water and work gloves is also recommended.
- If a CRWC sponsor provides kayaks to support our clean-up efforts, kayaks are always on a first-come-first-served basis

LAST YEAR'S CLINTON CLEAN-UP RESULTS

2,124 lbs of Trash Collected

237 Active Volunteers



Clinton Clean-up would not be possible without the efforts of local individuals who step up to lead clean-ups. We thank all of 2023's clean-up coordinators.

Are you interested in leading a site near you next year? Anyone can be a clean-up coordinator. CRWC staff are happy to provide site coordinators with the guidance they need to be successful. To learn more about leading a site in 2024, please contact pronoye@crowc.org.

PUBLIC CLEAN-UPS

HAWTHORNE PARK

September 7, 2023 // 1:00 p.m. - 3:30 p.m.
1400 Telegraph Rd, Pontiac, MI 48340

Water Resources Commissioner Jim Nash invites you and his staff to spend the afternoon helping to clean-up Hawthorne Park in Pontiac. Email taubea@oakgov.com to register.

CLINTON RIVER CLEAN-UP WITH RED LOTUS YOGA

September 9, 2023 // 2:30 p.m. - 2:30 p.m.
Eagles Landing - 1015 S Livernois Rd, Rochester Hills

Help Red Lotus help mother nature at a river clean-up at Eagle's Landing. Bring a towel, change of clothes and water. Waders will be provided. If the water levels are too high, it will be too dangerous to go into the river and we would cancel. To register, email brian@redlotusyoga.com.

GALLOWAY LAKE PARK CLEAN-UP

September 9, 2023 // 10:00 a.m. -12:00 p.m.
Corner of Giddings and Perry Roads

As part of the 2023 Clinton Clean Up Day sponsored by CRWC, Sierra Club Rochester ECOs is organizing a river clean up event in Pontiac! They have chosen a site upstream of one of their Adopt-A-Stream monitoring locations. Clean-up efforts over the last several years have had a positive impact on the area and this group would like to continue this work to impact water quality in the watershed. Parking: You can park at the AutoZone parking lot located at 1511 N. Perry Rd. in Pontiac. The group will be across the street on Giddings Rd. For more information, contact rochesterecos@gmail.com.

RIVER WOODS PARK AND SKATE PARK CLEAN-UP

September 16, 2023 // 9:00 a.m. -12:00 p.m.
300 River Woods Drive, Auburn Hills, MI

Join the City of Auburn Hills in cleaning up River Woods Park, Skate Park, and the Clinton River. Volunteers are advised to wear work clothes and sturdy shoes. Advance notice of participation is appreciated but not required. To register, email skeenan@auburnhills.org or call at 248.364.6929.

TRASH RUN

September 8, 2023 // 10:00 a.m. - 2:00 p.m.

Join the CRWC and Clinton River Canoe and Kayak (CRCK) for a trash run of the Clinton River! Volunteers will work in groups of two in canoes paddling down the Clinton River and picking up trash along the way. Wear comfortable clothes, sunscreen, and bug spray. Bring plenty of water and a snack.

Please be advised that depending on water levels and recent rain events, the water can move quickly in some areas and be difficult for a beginner to navigate. This stretch of the river is recommended for individuals with paddling experience and not for anyone under the age of 14. Canoes will be provided by CRCK. Exact paddling route will be determined week of, but will start in the Sterling Heights area. Registration is REQUIRED to reserve a canoe and receive meeting location. To register, visit <https://bit.ly/3NKxodB>.



CITY OF ROCHESTER CLEAN-UP

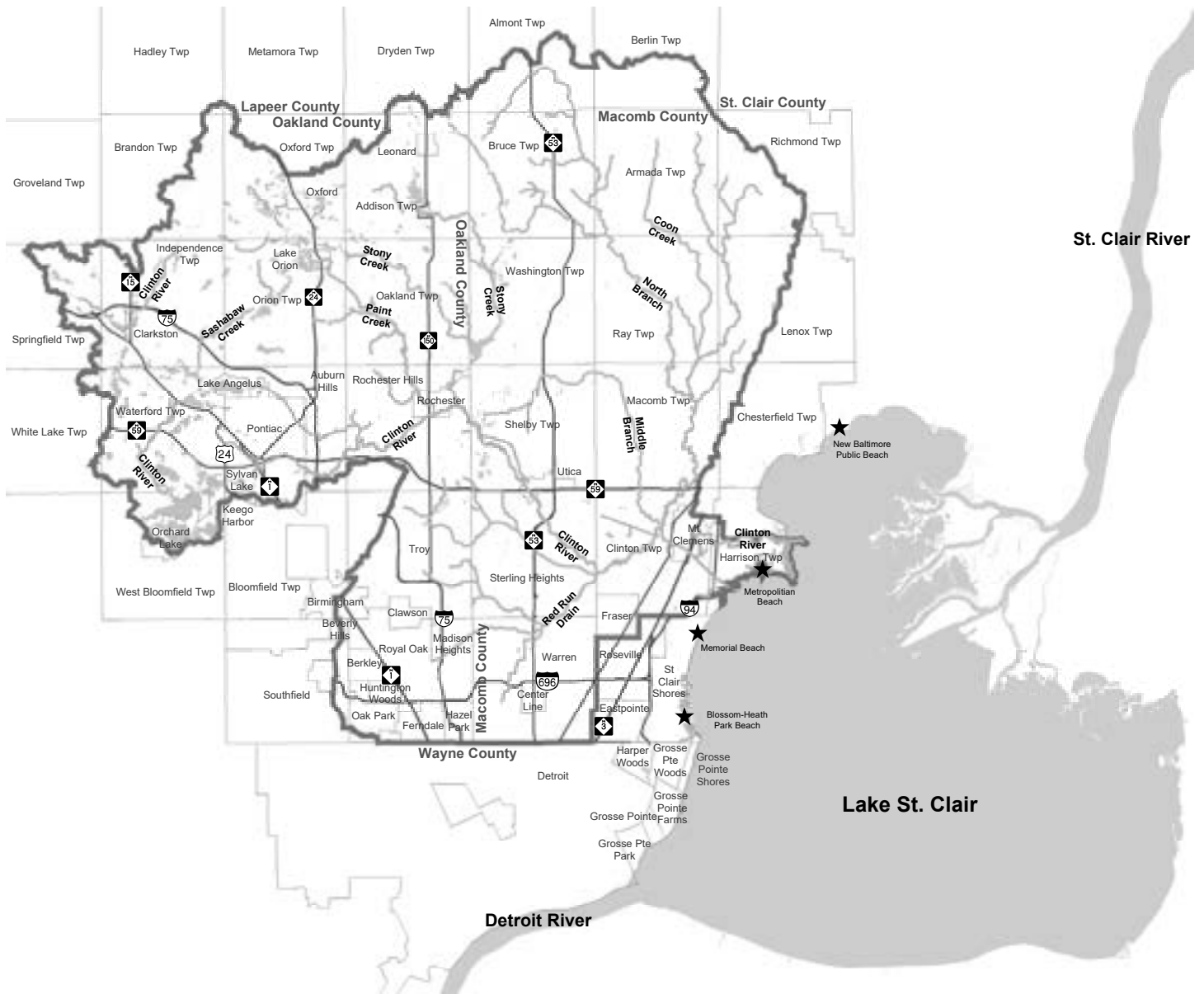
September 23, 2023 // 9:00 a.m. - 11:30 a.m.

Diversion Street parking lot, under the Main Street bridge, adjacent to the Clinton River Trail and 345 Diversion building City of Rochester

We will be picking up trash along the Riverwalk and Clinton River Trail. We will meet at the Diversion St. parking lot adjacent to the Clinton River Trail, underneath the Main St. bridge. Parking and registration is at the Diversion Street parking lot, under the Main Street bridge, adjacent to the Clinton River Trail and 345 Diversion building. Snacks, beverages & trash bags will be available for all volunteers. Rain or shine - dress appropriately for the weather.

Register by email at jdickinson@rochestermi.org or by phone at 248.379.8806.

THE CLINTON RIVER WATERSHED



QUESTIONS

For questions or more information about Clinton Clean-Up, please contact Pronoye Kapali, Watershed Program Specialist at pronoye@crwc.org or call 248-601-0606 ext. 27.



APPENDIX F

Stormwater Management Forums

Contents

Agendas for 2022 and 2023 Forums

Sign-in Sheets for 2022 and 2023 Forums



Stormwater Management Forum 2022

June 16th 11:00 AM - 12:00 PM

MISD Room 100 B

44001 Garfield Rd
Clinton Twp, MI 48038

Agenda

- 11:00 AM** Brief Introduction and Updates from CRWC
- 11:10 AM – 11:50 AM** “Oakland County Spectacular Stormwater Standards” Ryan Woloszyk, Civil Engineer II, Oakland County Water Resources Commissioner
- 11:50 AM – 12:00 PM** Questions and Community Updates
- 12:00 PM** Adjourn



Stormwater Management Forum 2022

September 15th 11:00 AM - 12:00 PM

Virtual via Zoom

Agenda

- 11:00 AM Brief Introduction and Updates from CRWC
- 11:10 AM – 11:50 AM “Go Green! Go Right! Ecosystem Services and Linked Tree Types” Asia L. Downtin, Ph.D., Assistant Professor of Urban and Community Forestry, Michigan State University
- 11:50 AM – 12:00 PM Questions and Community Updates
- 12:00 PM Adjourn



Stormwater Management Forum #4 2022

November 17th 11:00 AM - 12:00 PM

In Person at Sterling Heights DPW

7200 Eighteen Mile Road, Sterling Heights, Michigan 48314

Agenda

- | | |
|-------------------|--|
| 11:00 AM | Brief Introduction and Updates from CRWC |
| 11:10 AM-11:50 AM | Lessons Learned in Working with Homeowners, as well as Macomb County Updates shared by Amanda Oparka, AICP, Senior Planner for Macomb County Planning & Economic Development |
| 11:50 AM-12:00 PM | Questions and Community Updates |
| 12:00 PM | Adjourn |



Stormwater Management Forum Q1 2023

March 16th 11:00 AM - 12:00 PM

Virtual via Microsoft Teams

https://teams.microsoft.com/l/meetup-join/19%3ameeting_NmJhMmRiOWUtODQxNi00MjM3LWE2ZmYtMWVjNTYzMWZjNzVI%40thread.v2/0?context=%7b%22Tid%22%3a%2282c9c9bc-fdec-4422-9b46-26151961ae5f%22%2c%22Oid%22%3a%22df43c51f-79e8-46c8-9d24-fb1f9aa7553e%22%7d

Agenda

- | | |
|-------------------|---|
| 11:00 AM | Welcome |
| 11:10 AM-11:50 AM | CRWC Programs and Scope of Services shared by Kaleigh Snoddy, Clinton River Watershed Council |
| 11:50 AM-12:00 PM | Questions and Community Updates |
| 12:00 PM | Adjourn |



Stormwater Management Forum Q2 2023

July 20th 10:00 AM - 12:00 PM

Orion Township Municipal Complex, Dragon Community Room
2323 Joslyn Road, Lake Orion

Agenda

10:00 AM-10:30 AM	Welcome and CRWC Updates, Breakfast
10:30 AM-11:30 AM	Nonpoint Source Pollution Control Grants - Section 319 shared by Jack Cotrone from Michigan EGLE
11:30 AM-12:00 PM	Questions, Community Updates, and Discussion
12:00 PM	Adjourn



Stormwater Management Forum Q4 2023

November 30th 10:00 AM - 12:00 PM

North Branch Clinton-Macomb Public Library, Meeting Room
54100 Broughton Rd, Macomb

Agenda

10:00 AM-10:20 AM	Breakfast, Welcome, and CRWC Updates
10:20 AM-11:00 AM	Facilitated discussion on community needs
11:00 AM-11:10 AM	Break
11:10 AM-11:40 AM	Facilitated discussion on aspiration activities and visioning
11:40 AM-11:50 AM	Community updates
11:50 AM-12:00 PM	Evaluation & Networking
12:00 PM	Adjourn



Stormwater Management Forum January 2024

January 16th 11:00 AM - 12:00 PM

Virtual via Microsoft Teams

<https://rb.gy/iuoz9b>

Agenda

- | | |
|-------------------|--|
| 11:00 AM | Welcome |
| 11:10 AM-11:50 AM | CRWC Project and Program Updates shared by Kaleigh Snoddy, Clinton River Watershed Council |
| 11:50 AM-12:00 PM | Questions and Community Updates |
| 12:00 PM | Adjourn |

6/16/22 Stormwater Management Forum - Oakland County Spectacular Stormwater Standards

11 attendees

Name	Email
Sue Kelsey	skelsey@yahoo.com
Scott Finlay	finlaysg@troymt.gov
Laura Gruzowski	lgruzowski@dlz.com
Kellie Das	kellie@archenvgroup.com ✓
Stacey McFarlane	stacey.mcfarlane@macombgov.org
Ashley Casey	acasey@aewinc.com
Lishba Varughese	varughesel@michigan.gov ✓
Jeff Trent	jeff.trent@macombgov.org
Fred Cowles	fredcowles@cowlesenvironmental.com ✓
Shane Rudolph	rudolphs@rochesterhills.org ✓
Tim Pollizzi	pollizzit@rochesterhills.org
Lynne Seymour	seymourl@oakgov.com
Michael Orbain	petriellos@oakgov.com
Stephanie Petriello	petriellos@oakgov.com
Allison Grimes	agrimes@dlz.com
Kaleigh Snoddy	kaleigh@crwc.org
Ryan Woloszyk	woloszykr@oakgov.com

9/15/22 Stormwater Management Forum

Go Green! Go Right! Ecosystem Services and Linked Tree Types" Asia L. Downtin, Ph.D., Assistant Professor of Urban and Community Forestry, Michigan State University

Name	Email
Sue Kelsey	skelsey@yahoo.com
Laura Gruzowski	lgruzowski@dlz.com
Mary Underwood	unbake31@gmail.com
Scott Finlay	finlaysg@troy.mi.gov
Mary Shepherd	mshepherd@sterling-heights.net
Fred Cowles	fredcowles@cowlesenvironmental.com
Bonnie Krauss	kraussb@washingtontwp.mi.org
Alek Mizikar	amizikar@rochester.mi.org
Amanda Oparka	amanda.oparka@macomb.gov
Sermed Saif	ssaif@tri-countyeng.com
Marcuz Dilbert	mdilbert@newhaven.mi.org
Julian Trevino	juliantrevinojr@gmail.com
Ashley Allen	aallen@hrcengr.com
Claire Galed	cgaled@gmail.com
David Sloan	history584@aol.com
Elizabeth Schultz	eschultz@shelbytwp.org
Steve Pollack	srpollack@hotmail.com
Tammy Girling	tgirling@oriontownship.org
Kathleen Sexton	sextonk3@michigan.gov
Tammy Neeb	manager@keegoharbor.org
Corey Mills	mills@keegoharbor.org
Heather Murphy	heather@archenvgroup.com
Lucas Biernat	
Kaleigh Snoddy	
Asia Downtin	

Speakers

Kaleigh Snoddy
Asia Downtin

17 total attendees



EVENT:	CRWC Quarterly Stormwater Forum	FACILITATOR:	Kaleigh Snoddy – Director of Education and Stewardship, Clinton River Watershed Council	
LOCATION:	City of Sterling Heights – Department of Public Works	DATE & TIME:	Thursday, Nov.17th, 2022 / 11:00am to Noon	
	NAME (please print)	SIGNATURE	COMPANY	EMAIL ADDRESS
1	Fred Cowles		Cowles Env	fred.cowles@cowlesenv.com
2	Shane Rudolph		Rochester Hills	rudolphs@rochesterhills.org
3	Amanda Opatka		MCPEO	amanda.opatka@mcpeo.com
4	Lishba Vanughe		EGLE - WRD	vanughele@michigan.gov
5	Kaleigh Snoddy		CRWC	Kaleigh@crwc.org
5	Jing Lin		Sterling Heights	jlin@sterling-heights.net
6	Casey Iezewski		Arch Environmental Group	casey@archenvgroup.com
7	Jack Cotrone		EGLE	cotronej@michigan.gov
8	Mary Shepherd		SterlingHghts-DPW	mshpherd@sterling-heights.net
9	Laura Grunzatski		DLZ	lgrunzatski@dlz.com
10	Susan Kelsey		CRWC	sue@crwc.org
11				
12				
13				
14				
15				

March 16th, 2023 SW Management Forum CRWC Programs
& Scope of Services

Name	Email
Laura Gruzowski	lgruzowski@dlz.com
Kellie Das	kellie@archenvgroup.com
Luke Hefferan	luke.hefferan@macombgov.org
Tim London	tlondon@oxfordtownship.org
Danielle Devlin	danielle.devlin@macombgov.org
Scott Finlay	finlaysg@troymi.gov
William Basigkow	wbasigkow@oriontownship.org
Lishba Varughese	varughesel@michigan.gov
Paul Kosiara	pkosiara@chesterfieldtwp.org
Jack Cotrone	cotronej@michigan.gov
Tammy Neeb	clerk@keegoharbor.org
Fred Cowles	fredcowles@cowlesenvironmental.com
Shane Rudolph	rudolphs@rochesterhills.org
Divya Loranger	dloranger@aewinc.com
Liz Guzanek	eguzanek@oriontownship.org
Bryan Babcock	babcockb@scsmi.net
Geoff Brown	browng@scsmi.net
Chris Liebert	liebertc@scsmi.net
Denise Pike	piked@scsmi.net
Jing Lin	jing.lin@troymi.gov
Sam Madden	samuel.madden@macombgov.org
David Wirth	dwirth@cityofwarren.org
Tim Young	hpwater@hazelpark.org
Scott Kleinfeld	s.kleinfeld@clintontownship-mi.gov
Darwin P McClary	mcclaryd@lakeorion.org
Anthony Lewis	anthony.lewis@macombgov.org
Jenna Hume	

CRWC

Kaleigh Snoddy
Pranoy Kapali

21 attendees

EVENT: Q2 Stormwater Management Forum 2023 **LOCATION:** Orion Twp Municipal Complex 2323
 Justice Rd
 Lake Orion

DATE: 7/20/23 **PRESENTER(S):** Kaleigh Snaddy, Jack Cotrone

First Name	Last Name	Community	Email Address
Mike	Bilica	Anderson, Edsel, & Westrick	mbilica@AEWINX.com
Scott	Kleinfield	Clinton Township	s.kleinfield@clinton.township.mi.gov
Shane	Rudolph	Rochester Hills	rudolphs@rochesterhills.org
Fred	Cowles	GPP & GPF	fredcowles@cowlesenvironmental.com
Sophia	eglarek	DLZ	sceglarek@DLZ.com
Kathleen	Sexton	EGLE	sextonk3@michigan.gov
Boyd	Getz	MCPWO	boyd.getz@macomb.gov
Luke	Hefferan	Macomb Co. Planning	luke.hefferan@macomb.gov
Christine	Caddick	EGLE	caddickc@michigan.gov
William	Diamond	UTICA	dpwsupt@cityofutica.org
Kathleen	McBride	Arch Environmental Group <small>Rochester Schools, Macomb County</small>	kathleen@archenvgroup.com
Lishba	Vanghese	EGLE	vanghese@c.michigan.gov
Elizabeth	Guzanek	Charter Township of Orion	eguzanek@oriontownship.org

TOTAL ATTENDANCE: 16



EVENT: Q2 Stormwater Management Forum		LOCATION: Orion Twp Municipal Complex ²³²³ Jaslyn Rd L-14 Orion	
DATE: 7/20/23	PRESENTER(S): Kaleigh Snoddy, Jack Cotrone		
First Name	Last Name	Community	Email Address
Kristine	Gordon	Charter Township of Orion	Kgordon@oriontownship.org
+ Jack Cotrone			
Kaleigh Snoddy			

TOTAL ATTENDANCE: 16



2. Participants

Name	Email	Participant ID (UPN)
Kaleigh Snoddy	Kaleigh@crwc.org	Kaleigh@crwc.org
Nancy Russell	Nancy.Russell@ohm-advisors.com	Nancy.Russell@ohm-advisors.com
Bajuk, Gregory	GBajuk@hrcengr.com	gbajuk@hrc-engr.com
Don A. Ball	dball@solake.org	dball@solake.org
Hulme, Jenna	hulmej@scsmi.net	hulmej@scsmi.net
Mike Billica (from AEW)	mbillica@aewinc.com	
Varughese, Lishba (EGLE)	VARUGHESEL@michigan.gov	VARUGHESEL@michigan.gov
Elizabeth Guzanek	eguzanek@oriontownship.org	eguzanek@oriontownship.org
Barna, Sam	Sam.Barna@oxfordschools.org	Sam.Barna@oxfordschools.org
Anthony Lewis. MCPWO (Guest)	anthony.lewis@macombgov.org	
Antonio A Cicchetti	Antonio.Cicchetti@troy.mi.gov	Antonio.Cicchetti@troy.mi.gov
Casey Jezewski	casey@archenvgroup.com	casey@archenvgroup.com
Scott G Finlay	FinlaySG@troy.mi.gov	FinlaySG@troy.mi.gov
Allen, Ashley	AAllen@hrcengr.com	aallen@hrc-engr.com
Caddick, Christine (EGLE)	CaddickC@michigan.gov	CaddickC@michigan.gov
Megan McReynolds	mmcreynolds@dlz.com	mmcreynolds@dlz.com
Jeffery Schiffman	Jeffery@crwc.org	Jeffery@crwc.org
ryan		
Tim Young	tyoung@hazelpark.org	tyoung@hazelpark.org
Bonnie Krauss	kraussb@washingtontwp.mi.org	
Mike Connell	connellm@clps.org	
Sal Pellerito	spellerito@mysd.net	
Parto guity		
Sermed Saif	ssaif@tri-countyeng.com	ssaif@tri-countyeng.com
Gratton, Donald	grattdo@lc-ps.org	grattdo@lc-ps.org
Brown, Geoffery	browng@scsmi.net	browng@scsmi.net
Amanda Oparka	aopark@macombgov.org	aopark@macombgov.org

Registered but could not attend

danielle.devlin@macombgov.org
tlondon@oxfordtownship.org
nguenther@sda-eng.com

EVENT: Q4 Stormwater Management Forum		LOCATION: CMPL-North	
DATE: 11/30/23		PRESENTER(S): Kalij Sully, CRWC	
First Name	Last Name	Community	Email Address
Fred	Cowles	GPF & GPP	fred.cowles@oaklandcounty.org
Mindy	Steffler	EGLE	Stefflerm@midmichigan.gov
Luke	Hefferan	MCPED	luke.hefferan@macomb.gov.org
Nate	Jessee	Road Commission for Oakland County	njessee@rcoc.org
TIM	YOUNG	CITY OF HAZEL PARK	tyoung@hazelpark.org
Bill	Diamond	City of Utica	dpwsupt@cityofutica.org
Jeff	Bednar	MCPWO	jeff.bednar@macomb.org
DANIELLE	DEVLIN	MCPWO	danielle.devlin@macomb.org
Casey	Tezewski	AEG (arch)	casey@archengr.com
Ashley	Allen	HRC	aallen@hrcengr.com
Grace	Brown	CITY OF SAINT CLAIR SIDINGS	Grace@scsmc.net
Stephanie	Petrello	WRC	petrellos@oakgov.com
David	WIRTH	City of Warren	dwirth@cityofwarren.org

TOTAL ATTENDANCE:



EVENT: Q4 Forum		LOCATION:	
DATE: 11/30/23	PRESENTER(S):		
First Name	Last Name	Community	Email Address
Christine	Caddick	EGLÉ	caddickc@michigan.gov
Laura	Gruszalski	DLZ	lgruszalski@dlz.com
Lishka	Vaughese	EGLÉ	VaugheseL@michigan.gov
Katey Snoddy		CRWC	

TOTAL ATTENDANCE:



Stormwater Management Forum 1/16/24

Attended participants: 27

Kaleigh Snoddy	Kaleigh@crwc.org
Ryan Lopez	rlopez@oriontownship.org
Mary Einheuser	meinheuser@oriontownship.org
Bonnie Krauss/Washington Twp	
Tim P Rochester Hills	
Gerry McCallum (Guest)	
Megan McReynolds	mmcreynolds@dlz.com
Carol Apley	
Scott G Finlay	FinlaySG@troymi.gov
McKissen, Brian	blmckissen@fishbeck.com
Varughese, Lishba (EGLE)	VARUGHESEL@michigan.gov
Casey Jezewski	casey@archenvgroup.com
Sexton, Kathleen (EGLE)	SextonK3@michigan.gov
Laura Gruzowski	lgruzowski@dlz.com
Danielle Devlin, MCPWO	
Amanda Oparka	aopark@macombgov.org
ryan	
Cotrone, Jack (EGLE)	CotroneJ@michigan.gov
Bill Diamond	
Bryan Babcock - City of St. Clair Shores	
Darwin McClary	mclaryd@lakeorion.org
Michael Way - Grosse Pointe Shores	
Stacey McFarlane	smcfar@macombgov.org
Elizabeth Guzanek	eguzanek@oriontownship.org
Antonio A Cicchetti	Antonio.Cicchetti@troymi.gov
fred	
Pasienza, Bailee	pasienza@semcog.org

APPENDIX G

Keeping It Clean

Contents

Weekly Clean schedules and metrics

Weekly Clean Sign-in sheets

Date	Location	Community	Subwater shed	County	Number of Volunteers	Number of New Volunteers	Amount of Trash (lbs)	Notes
4/6/2022	Gerald N. Donovan Park	Sterling Heights	CREW	Macomb	11	7	33	
4/13/2022	River Woods Park	Auburn Hills	CM	Oakland				Cancelled due to thunderstorms, will be rescheduled
4/20/2022	Macomb Corners Park	Macomb	NB	Macomb	10	2	94	
4/27/2022	Waterford River Walk	Waterford	UC	Oakland	6	3	67	
5/4/2022	Hawthorne Park	Pontiac	CM	Oakland	8	0	336	
5/11/2022	Joseph Delia Park	Sterling Heights	RR	Macomb	23	17	334	
5/18/2022	Brys Park	St. Clair Shores	LSC	Macomb	2	0	39	
5/25/2022	Firefighters Park	Troy	RR	Oakland	46	42	187	
6/1/2022	Lake Norcentra Park	Rochester Hills	SP	Oakland	8	2	89	
6/8/2022	City of Warren Halmich Park	Warren	RR	Macomb	11	6	23	
6/15/2022	CRWC Office	Rochester Hills	SP	Oakland	19	6	157.5	
6/22/2022	Beaudette Park	Pontiac	CM	Oakland	15	9	113.5	
6/29/2022	James C. Nelson Park	Sterling Heights	RR	Macomb	5	0	41.5	
7/6/2022	Rosie's Park	Madison Heights	RR	Macomb	4	1	6	
7/13/2022	River Woods Park	Auburn Hills	CM	Oakland	1	0	105	Cancelled due to thunderstorms, but a volunteer went out and cleaned
7/20/2022	Murphy Park	Pontiac	CM	Oakland	3	0	57.5	
7/27/2022	Shadyside Park	Mount Clemens	CREW	Macomb	23	16	58	
8/3/2022	Clintonwood Park	Independence Township	UC	Oakland	4	1	13	

8/10/2022	Dodge Park	Sterling Heights	CREW	Macomb	8	1	54.5
8/17/2022	Buhl Park	Addison Oaks County Park	SP	Oakland	3	0	21
8/24/2022	Bloomer Park	Rochester	CM	Oakland	14	9	117
8/31/2022	Pollard Park	Chesterfield	AB	Macomb	10	2	22
9/7/2022	Stage Nature Center	Troy	RR	Oakland	6	1	31
9/14/2022	Waldenburg Park	Macomb	CREW	Macomb	6	0	26
9/21/2022	Yates Park	Rochester Hills	CM	Oakland	11	3	27.5
9/28/2022	Maynard "Red" Aurand Memorial Park	New Baltimore	AB	Macomb	3	0	29.5
10/5/2022	Innovation Hills	Rochester Hills	CM	Oakland	15	9	52.5
10/12/2022	Clinton River Heritage Park	Utica	CREW	Macomb	19	10	231.5
10/19/2022	Nicholson Nature Center	Clinton Township	NB	Macomb	6	2	96.5
10/26/2022	Friendship Park	Lake Orion	UC	Oakland	24	9	43.5
11/2/2022	River Woods Park	Auburn Hills	CM	Oakland	4	0	357.5
11/9/2022	Seymour Lake Township Park	Oxford	SP	Oakland	2	0	10.5
11/16/2022	North Clinton River Park	Sterling Heights	CREW	Macomb	5	0	43.0
			TOTAL	33	336	163	2917.5

<u>Date</u>	<u>Park</u>	<u>Location</u>	<u># of Volunteers</u>	<u># of New Volunteers</u>	<u>Lbs of Trash</u>	<u>Notes</u>	<u>Companies that Participated</u>
4/5/2023	Boulan Park	Troy	5	1	5	Cancelled due to tornado warning and thunderstorms	-
4/12/2023	Waldenburg Park	Macomb	33	14	700	Very good! Lots of trash in the North Branch and among trees	Amazon, DTE
4/19/2023	Brys Park	St. Clair Shores	12	3	64	Lots of light trash was found; paper on I-94 side of the fence, trash in baseball diamond, along fences of homes	-
4/26/2023	River Woods Park	Auburn Hills	21	15	502.5	Very close to Waldenburg's number! Would have surpassed it if the wooden trailer wasnt found. Lots of trash in the river and in the many trails that the park has to offer	Comerica, Ally, Sea Life
5/3/2023	Waterford River Walk Main Pavilion	Waterford	7	0	117.5	Decent amount of trash, was raining so small turn out. Hard to find, <u>bring signage in the future</u> . Potential kayak clean up?	
5/10/2023	Macomb Corners Park	Macomb	5	1	49	Decent sized park, not as much trash as last year but collects around McBride Drain, good for small groups	
5/17/2023	Boulan Park	Troy	13	5	391	Dump site in woods, not in plain site. Move marker near dumpster in future.	Sea Life
5/24/2023	Hawthorne Park	Pontiac	11	0	383.5	Multiple dump sites in woods, bring more contractor bags	POW
5/31/2023	Joseph Delia Park	Sterling Heights	22	7	127	Massive park, mostly small trash items, not a lot of weight but good to spread out. Waders were productive!	Sea Life
6/7/2023	David Shepherd Park	Oak Park	9	5	61.5	A lot of trash all throughout park, including on trails through woods	City of Oak Park
6/14/2023	Pollard Park	Chesterfield	8	1	23	Fairly clean but next to highway, okay for small groups	
6/21/2023	Shadyside Park	Mt. Clemens	24	17	89.5		Cooper
6/28/2023	Friendship Park	Lake Orion	15	9	16		
7/12/2023	Firefighters Park	Troy	14	5	44	Very busy park but not a ton of trash, good for smaller groups	
7/19/2023	Heritage Park	Utica	17	9	117	Looked cleaner than it was, along road and river are great places to look	Cooper, Sea Life
7/26/2023	Beaudette Park	Pontiac	23	7	353	Multiple dump sites, very large park, great for large groups. Can contact WRC to lower water levels to do more cleanup in the water	Sea Life
8/2/2023	Avon Nature Area	Rochester Hills	11	1	54.5	Not very good for trash, great for Volunteer Appreciation!	
8/9/2023	Nicholson Nature Center	Clinton Township	15	8	82.5	Not much trash, but nice area. Might be decent for small groups	
8/16/2023	Halmich Park	Warren	9	2	59.5	Not much trash but greatly appreciated by the parks department!	
8/23/2023	Stony Lake Park	Oxford Township				Cancelled due to thunderstorms	

8/30/2023	James C Nelson & Beaver Creek Park	Sterling Heights	77	72	1842	Small park that looks clean but a TON of trash in the creek! Literally! Bring more waders!!!!	GM Design Center
9/6/2023	Hartsig Park	Warren	5	1	85	Fairly clean, couple of large items. Best with small group	
9/13/2023	Dodge Park	Sterling Heights	48	38	174	Looks clean, lots of small stuff. Big park, lots of space for larger groups	GM Design Center, SeaLife, Forvia, Shift Design
9/20/2023	Maynard "Red" Aurand Memorial Park	New Baltimore	4	0	14	High use park but not very dirty, most trash found in the parking lot	
9/27/2023	Mae Stecker Park	Shelby Township	5	0	21.5	High use park but not very dirty, more trash found in ditch along road, ponds for possible clean up?	
10/4/2023	Stony Lake Park	Oxford Township	3	0	65	Most trash found at beach, decent for small groups at the end of the season, possible waders due to proximity to lake	
10/11/2023	Lake St. Clair Metropark	Harrison Township	7	3	94	The metropark was very excited to have our help, they have equipment that can be borrowed. Focus on the south shoreline next	
10/18/2023	Oakland Park	Pontiac	30	21	270	Decent park, picked up surrounding streets as well	
10/25/2023	Thelma G Spencer Park	Rochester Hills	15	4	126	Large park, most trash found deeper in woods and not on trail	
11/1/2023	Virtual Weekly Clean	Watershed wide	2	0	10		
11/8/2023	River Bends Park	Shelby Township	4	1	18		
11/15/2023	Starr Jaycee Park	Royal Oak	7	6	15.5		

31	474	250	5959.5
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CRWC Weekly Clean



Gerald N. Donovan Park 4/6/22

p. Kapali

Location

Date

Supervisor

Name (First and Last)

New CRWC Volunteer?

✓	1. BERNARD J GULOWSKI JR	N
	2. BRICE STEFFES	Y
	3. TARYN STEFFES	Y
	4. ELISE STEFFES	Y
✓	5. TIM	N
	6. NICOLE BONKOSKI	Y
	7. MARK BONKOSKI	Y
	8. MARC BONKOSKI	Y
	9. GRANT BONKOSKI	Y
✓	10. CATHEE MELAKUM	N
✓	11. MARTIN LUTZ	N
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CRWC Weekly Clean



Macomb Corners Park

4/20/22

Ronnyje

Location

Date

Supervisor

Name (First and Last)

New CRWC Volunteer?

1. BEENARD J. GULOWSKI JR	N
2. Laura White	N
3. Kristen Dail	N
4. Brooke Weatherford	W
5. Alex Davalos	Y
6. Skyler Principe	N
7. Sarah Guzzardo	N
8. NICK MASTON	Y
9. TIM JOHNSTON	N
10. Cathie Meldrum	N
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CRWC Weekly Clean



Waterford River Walk

4/27/22

Bismarck

Location

Main Pavilion

Date

Supervisor

Name (First and Last)

New CRWC Volunteer?

Name (First and Last)	New CRWC Volunteer?
1. BERNARD J GROWSKI JR	N
2. Rainey Shanks	Y
3. Rick Eggenmy	Y
4. TIM J. H. STE	N
5. Skilar Hahn	Y
6. LISA KIRK	Y
7.	
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CRWC Weekly Clean



Hawthorne Park

5/4/22

Pronaje

Location

Date

Supervisor

Name (First and Last)

New CRWC Volunteer?

1. David Horle	Intern
2. Brenna BeGENER	Intern
3. Jenna Marraoth	Intern
4. BERNARD J GULOWSKI JR	N
5. Tim JOHNSTONE	N
6. Karin Stant	N
7. Christine Garrett	N
8. Mike Garrett	N
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CRWC Weekly Clean



Joseph Delia

5/11/22

Pronoye + Brenna

Location

Date

Supervisor

Name (First and Last)

New CRWC Volunteer?

✓ 1.	BERNARD J GULOWSKI JR	N	✓
✓ 2.	Tracy Frame	Y	✓
✓ 3.	TOM EHREK	N	✓
4.	Ayriel Strange	Y	✓
5.	Kori Brinkman	N	✓
6.	MOUSA AKROUSH	N	✓
7.	Guang Hebedin	X	✓
✓ 8.	Tina JOHNSON	N	✓
9.	Matt Wagoner	Y	✓
10.	Cathie Meldrum	N	✓
11.	Tyler detries-Wallace	Y	✓
12.	PETE Gumm	Y	✓
13.	Arslan Rubeem	Y	✓
14.	Jason Russell	Y	✓
15.	JASON STARK	Y	✓
16.	Madison Heli	Y	✓
17.	Todd M'Carthy	Y	✓
18.	GREG Danofrio	Y	✓
19.	Matt Longhead	Y	✓
20.	Tony GARBARINO	Y	✓
21.	Amie ALLOWKAY	Y	✓



CRWC Weekly Clean



Bry's Park

5/18/22

Pronoye

Location

Date

Supervisor

Name (First and Last)

New CRWC Volunteer?

1. BERNIE GULOWSKI	N
2. Skyler Principe	N
3.	
4.	
5.	
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21



CRWC Weekly Clean



Name (First and Last)

New CRWC Volunteer?

✓ 21. Annabel Rank	y
✓ 22. Alejandro Méndez	y
✓ 23. Dave Black	
✓ 24. Jayme James	y
✓ 25. NATE ROSE	y
✓ 26. Rebecca Godwin	y
✓ 27. Melen Xu	y
✓ 28. Lauren Grauer	N
✓ 29. Scott Gura	y
✓ 30. Li Zhao	y
✓ 31. Amanda Arndt	y
✓ 32. MaryAnn Husynne	y
✓ 33. David Hayes	y
✓ 34. Kathleen Cedeno	y
✓ 35. Sabrina Maroncelli	y
✓ 36. Haley Chill	y
✓ 37. Hannah Umicki	yes
✓ 38. Matt Mitchell	yes
✓ 39. Josh Denthelage	y
✓ 40. Ryan Andrews	yes
✓ 41. Nicholas Skinner	yes
✓ 42. Cathie Meldrum	NO.
✓ 43. Eduardo Richards.	YES.
✓ 44. Leonardo Baptista	YES
✓ 45. John Osgood	YES

3+15+30+17+4+2+1+9.5+.5+.5 ~~1.5~~ +21+12+6+15



CRWC Weekly Clean



Lake Norcentra Park

6/1/22

Pronoye & Jenna

Location

Date

Supervisor

Name (First and Last)

New CRWC Volunteer?

Name (First and Last)	New CRWC Volunteer?
1. Bernardo J. Gulaszki Sr	N
2. Lauren Grauer	NO
3. Amanda Arndt	No
4. Kennedy Cogswell	yes
5. Brianna Smith	yes
6. Rebecca Godwin	No
7. Erik Schreefel	No
8. Skyler Principe	No
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✓
✓
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✓
✓



CRWC Weekly Clean



Halmich Park

6/8/22

Pronoye

Location Warren

Date

Supervisor

Name (First and Last)

New CRWC Volunteer?

Name (First and Last)	New CRWC Volunteer?
1. BERNARD J GULOWSKI JR	N
2. Skylee Principe	N
3. Scott Gurra	N
4. Gordon Greenley	Y
5. Alex Schohl	Y
6. Asher Berg	Y
7. Tim Johnston	N
8. Hannah Anderson	Y
9. Alexandria Maye-Bloom	Y
10. Mina Polczynski	Y
11. Cxthee Meldrum	N
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Vertical handwritten marks on the right margin, possibly checkmarks or tally marks.



CRWC Weekly Clean



+ WAM Garden

CRWC Office

6/15/22

Pronoye

Location

Date

Supervisor

Name (First and Last)

New CRWC Volunteer?

	Name (First and Last)	New CRWC Volunteer?	
•	1. BERNARD J GULOWSKI JR	N	✓
✓	2. Shane Spatafore	Y	✓
✓	3. Ivan Rose	Y	✓
(2) ✓	4. Denise + Marco Smith	2 new	✓
+ ✓	5. Kristina Graham	Y	✓
(2) ✓	6. Danielle / Pru Corrigan	N	✓
•	7. Mary Underwood	N	✓
•	8. GREGORY PETROSKY	N	✓
•	9. MICHELE PETROSKY	N	✓
	10. LUNA BROWN	N	✓
	11. Cather Meldrum	N	✓
•	12. Skyler Principe	N	✓
	13. Christine Garrett	N	✓
	14. Mike Garrett	N	✓
	15. Raymond Gilbert	N	✓
✓	16. CHRIS Sensini	Y	✓
	17. Taylor Haugen	N	✓
	18.		
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CRWC Weekly Clean



Beaudette Park

6/22/22

Pronoye

Location

Date

Supervisor

Name (First and Last)

New CRWC Volunteer?

	Name (First and Last)	New CRWC Volunteer?
1.	Tim JOHNSTONE	N
2.	BERNARD J GULOWSKI JR	N
3.	Garrett Cordell	Y
4.	Jonathan Melcher	Y
5.	mason Tucker	N
6.	Tyler Dawson	Y
7.	Richard Helmes	Y
8.	Ada Dantley - Conner	Y
9.	Dustin Netherell	Y
10.	Brenna DeGener	N
11.	Kristina Graham	N
12.	DAVE RUCIOLO	Y
13.	Chris Parker	Y
14.	Matthew Tucker	Y
15.	Skyler Principe	N
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Vertical handwritten marks on the right side of the table, including checkmarks and the letters 'Y' and 'N'.



CRWC Weekly Clean



James C. Nelson

6/29/22

Pronoye

Location

Date

Supervisor

Name (First and Last)

New CRWC Volunteer?

1.	BERNARD J. GULOWSKI JR	N
2.	Kristina Graham	N
3.	Tin JOANSTONE	N
4.	Greg Paulovic	N
5.	CATIE MILDREUM	N
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✓
✓
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✓
✓



CRWC Weekly Clean



Rosier's Park

7/6/22

Pro

Location Warren

Date

Supervisor

Name (First and Last)

New CRWC Volunteer?

1. Justin Varinew	Yes	✓ ✓ ✓ ✓
2. Tom Johnson	N	
3. Cathie Melduem	N	
4. Skyler Principe	N	
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CRWC Weekly Clean



Murphy Park

7/20/22

Pro

Location

Date

Supervisor

Name (First and Last)

New CRWC Volunteer?

1.	BERNARD J. GULOWSKI JR	N
2.	RONALD HIMMLER	N
3.	Skyler Principe	N
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CRWC Weekly Clean



Shadyside Park

7/27/22

Pro

Location

Date

Supervisor

Name (First and Last)

New CRWC Volunteer?

✓	1. BERNARD J. GULOWSKI JR	N	✓
✓	2. Sheery Summers	N	✓
✓	3. Wm Hines	Y	✓
✓	4. Nathan Brown	Y	✓
✓	5. Alexandra Isaac	Y	✓
✓	6. Adam Albright	Y	✓
✓	7. David Watkins	Y	✓
✓	8. Kayla Lehl	Y	✓
✓	9. Melissa Roudy	N	✓
✓	10. Lea Schmidt	Y	✓
✓	11. Kennadi Rankin	Y	✓
✓	12. Araceli Filipp	Y	✓
✓	13. Laci Clark	Y	✓
✓	14. Wendy Edwards	Y	✓
✓	15. Du Stehner	Y	✓
✓ +B	16. Pauline Savich	N	✓
	17. Catee Meldrum	N	✓
✓	18. MOUSA AKROUSH	N	✓
	19. Skyler Principe	N	✓
✓	20. Lori Brinkman	N	✓
✓	21. Rhonda Hinton	Y	✓



CRWC Weekly Clean



Clintonwood Park

8/3/22

Pro

Location

Date

Supervisor

Name (First and Last)

New CRWC Volunteer?

1.	BERNARD J. GULOWSKI JR	N	✓
2.	TIM JORDSTONE	N	✓
3.	OSCAR VILLO	YES	✓
4.	Skyler Principe	N	✓
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CRWC Weekly Clean



Volunteer Appreciation

Dodge Park

8/10/22

Pro + Kaleigh + Lacey + Taylor

Location

Date

Supervisor

Name (First and Last)

New CRWC Volunteer?

1. BERNARD J GOLOWSKI JR	N
2. RONALD HIMMLER	NO
3. CATHIE MELHORN	N
4. TIM PIPPA	NO
5. SKYLER	N
6. JENNA	N
7. TAYLOR	N
8. LACEY	N
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CRWC Weekly Clean



Addison Oaks

8/17/22

Pro

Location

Date

Supervisor

Name (First and Last)

New CRWC Volunteer?

	Name (First and Last)	New CRWC Volunteer?
1.	BERNARD J. GULOWSKI JR	Y
2.	RONALD HIMMLER	No
3.	TIM JOHNSTON	No
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CRWC Weekly Clean



Bloomer Park

8/24/22

Pro

Location

Date

Supervisor

Name (First and Last)

New CRWC Volunteer?

1.	Kay Collins	No
2.	Maria Harik	yes
3.	Natalia Harik	yes
4.	BERNARD S GULOWSKI JR	N
5.	Stella Brittingham	Yes
6.	Carey Brittingham	Yes
7.	Ivory Brittingham	Yes
8.	Don Wright	YES
9.	Rebecca Sexton	yes
10.	Dewyn Wilson	yes
11.	Brenda Garcia	yes
12.	Skyler Principe	NO
13.	Kristina Graham	No
14.	TIM PIPPA	NO
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CRWC Weekly Clean



Pollard Park

8/31/22

Pro

Location

Date

Supervisor

Name (First and Last)

New CRWC Volunteer?

1. Mantza Gomez	Yes
2. Julian Trevino	NO
3. Brett Trevino	NO
4. Mallory Bodell	NO
5. Barb Bodell	NO
6. Julian Skyleer Principe	NO
7. BERNARD J. GULOWSKI JR	NO
8. TIM PIPPIN	NO
9. Kristina Graham	NO
10. Kellington Graham	Yes
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CRWC Weekly Clean



Stage Nature Center

9/7/22

Pro

Location

Date

Supervisor

Name (First and Last)

New CRWC Volunteer?

1. Jaclyn Heikkila (FOTR)	yes
2. BERNARD J GULOWSKI JR	N
3. TIM JOANSTONE	N.
4. RONALD HIMMLER	N
5. Skyler Principe	N
6. TIM PIPPA	N
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CRWC Weekly Clean



Naldenburg Park 9/14/22 PM
 Location Date Supervisor

Name (First and Last)	New CRWC Volunteer?
1. BERNARD J GULOWSKI JR	N
2. TIM JOHNSTON	N
3. Skyler Principle	N
4. KRISTINA GRAHAM	N
5. KELLINGTON GRAHAM	N
6. TIM PIPPIN	N
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CRWC Weekly Clean



Yates Park

9/21/22

Pro

Location

Date

Supervisor

Name (First and Last)

New CRWC Volunteer?

x	1. RONALD HIMMEL	No
x	2. Michael Garrett	No
x	3. Chrishe Garrett	No
x	4. Shelby Sampson	Yes
x	5. Skyler Principe	N
	6. Tom Schwartz	No
	7. Dave Hilden	No
x	8. Kaitlyn Martin	yes
	9. Hanneh Zhenf	Yes,
x	10. Kristina Graham	No
x	11. Jim PIPPIN	NO
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CRWC Weekly Clean



Maynard "Red" Aurand Memorial 9/22/22 Pro
 Location Date Supervisor

Name (First and Last)	New CRWC Volunteer?
1. BERNARD J. GULOWSKI JR	N
2. Skyler Principe	N
3. Tim PITTIV	Y
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CRWC Weekly Clean



Innovation Hills

10/5/22

Pro

Location

Date

Supervisor

Name (First and Last)

New CRWC Volunteer?

	Name (First and Last)	New CRWC Volunteer?
✓	1. BERNARD J GULOWSKI JR	N
✓	2. Anthony Hovis	Y
✗	3. Mantra Gromet	N
✗	4. Jessica Mazzoli	Y
✗	5. Marija Gurtis	yes
✓	6. Tim JOHNSTONE	N
✓	7. Michael Crowley	yes
✗	8. Hanna Zheny	yes N.
✗	9. Laura Al-khayyat	yes
✗	10. Mariul Faria	yes
✗	11. Nora Calderon	yes
✓	12. SAM RAVINARAN	yes
✓	13. Skyler Principe	N
✓	14. TIM PIPPIN	NO
✗	15. SUSAN SARTISIAN	NO
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CRWC Weekly Clean



Clinton River Heritage
Location Park

10/12/22
Date

Pro
Supervisor

Name (First and Last)

New CRWC Volunteer?

1.	Daniel Benenati	yes
✓ 2.	Bernard J Guowski Sr	N
✓ 3.	Tim Joannston	N
✓ 4.	Martin Lutz	N
✓ 5.	BLAKE BELL	YES
✓ 6.	Ern Peterson	Yes
✓ 7.	Erin Matthews	yes
✓ 8.	Chris Kay	yes
✓ 9.	GIANLUCA BARTOLUCCI	YES
✓ 10.	Kathy Duttame	N
11.	Skylar Principe	N
✓ 12.	MIKE KEMURA	N
✓ 13.	Jonathan Tippett	Y
✓ 14.	Julian Trevino	N
✓ 15.	Brett Trevino	N
✓ 16.	RUBEN - LISA Camille	Y
✓ 17.	Zander Greife	Y
✓ 18.	Mackenzie Andrews	Yes
✓ 19.	TIM PIPPIN	NO
20.		
21.		



CRWC Weekly Clean



Nicholson Nature Center

10/19/22

Pro

Location

Date

Supervisor

Name (First and Last)

New CRWC Volunteer?

1. Angela Scapini	yes
2. Skyler Principe	N
3. BERNARD J. GULOWSKI Jr	N
4. JASON NOEL	Y
5. TIM JORDAN STONE	N
6. TIM PIPPIN	N
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CRWC Weekly Clean



Friendship Park

10/26

Pro

Location

Date

Supervisor

Name (First and Last)

New CRWC Volunteer?

	Name (First and Last)	New CRWC Volunteer?	
	1. BERNARD J. GULOWSKI JR	N	X
F	2. THOMAS HARMON	Y	X
F	3. GREG WOSROWICE	Y	X
GM	4. Shannen Rheme	N	X
GM	5. Marnel Kurney	N	X
F	6. Stephen Dittman	Y	X
	7. in Soapstone	N	X
F	8. Brono Hamelitz	Y	X
F	9. Scott Willard	Y	X
GM	10. Kimberly Crane - GM	N	X
	11. Christopher Crane	N	X
F	12. Andrew Price	Y	X
	13. Adam Thomas - FORVIA	Y	X
	14. Lauren Grauer (SL)	N	X
	15. Amanda Arndt (SL)	N	X
	16. Kennedy Betser (SL)	N	X
	17. Gordon Greenley (SL)	N	X
	18. Robert Rowson (F)	N	X
	19. KEITH FERGUSON (F)	N	X
	20. Brandon McDowell (forvia)	Yes	X
	21. Skyler Principe	N	X



CRWC Weekly Clean



River Woods Park

11/2/22

Pro

Location

Date

Supervisor

Name (First and Last)

New CRWC Volunteer?

1.	TIM JOHNSON	N
2.	Skyler Principe	N
3.	BERNARD J. GULOWSKI JR	N
4.	TIM PIPPAN	N
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CRWC Weekly Clean



Seymour Lake Township Park 11/9/22

Pro

Location

Date

Supervisor

Name (First and Last)

New CRWC Volunteer?

1. BERNARD J. GULOWSKI JR	N
2. Skyler Principe	N
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CRWC Weekly Clean



Boutan Park

4/5/2023

Kelji

Location

Date

Supervisor

Name (First and Last)

New CRWC Volunteer?

1.	Skyler Principe	No
2.	Jamie Buck	Yes
3.	Alice Richey	Yes
4.	Genevieve doebler	Yes
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CRWC Weekly Clean



Waldenburg Park

4/12/23

Pro + Lydia

Location

Date

Supervisor

4 AMAZON LEFT

Name (First and Last)

New CRWC Volunteer?

	1. Bill McIntosh	✓
X	2. Ron Cracchiolo	✓
	3. Tim Johnstone	
	4. Taylor Haugen	
	5. Skyler Principe	
✓	6. Gary Butske Jr	✓
✓	7. Logan Dubay	✓
	8. Tony Garbarino	✓
✓	9. Janice Fantauzzo	✓
X	10. Nicole Lalonde	✓
	11. Genery Adelman	✓
X	12. Denise Saraceno	✓
	13. Corey Barchfield	
X	14. Sabrina Benny	✓
	15. Mutt Loybet	
✓	16. Julian Trevino	
X	17. Brett Trevino	
	18. Pete Gunn	
	19. Dan Johnson	✓
	20. Todd McCarthy	✓
	21. Joe Schilkey	✓



CRWC Weekly Clean



Name (First and Last)

New CRWC Volunteer?

21.	Alan Rabeen	
22.	Sushiel Gill	
23.	Scott Markham	
24.	Armond Bukner	
25.	Jason Russell	
26.	L. Marie Smith	
27.	Bryan Wallace	
28.	Todd McCarthy	
x 29.	Jacob Seitz	
30.	Tim PIPPIN	NO
x 31.	Manny Haddad	
32.	Bernie	N
33.	Ron Cracchiolo	✓
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$$50 + 2 + 10 + 13 + 15 + 25 + 50 + 13 + 15 + 4 + 1 + 19 + 6 + 12 + 5 + 4 + 3 + 1 + 12 + 8 + 6 + 50 + 17 + 2$$

$$= 350 + \text{trailer}$$



CRWC Weekly Clean



Brys Park

4/19/23

Pro + Lydia

Location

Date

Supervisor

Name (First and Last)

New CRWC Volunteer?

✓ 1.	Mellory Burgess	yes
✓ 2.	Courtney Swamehoush	Yes
✓ 3.	Tom PIPPIN	NO
✓ 4.	Cather Meldrum	NO
✓ 5.	Taylor Haugen	NO
✓ 6.	Skyler Principe	N
✓ 7.	Jamie Buck	No
✓ 8.	ERIN Klouski	Yes
✓ 9.	Angela Scapini	no
✓ 10.	Brett Treviño	no
✓ 11.	Julian Treviño	no
✓ 12.	Bernie	N
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$$12 + 2 + 7 + 3 + 3 + 1 + 5 + 11 + 4 + 5 + 3 + 1 + 3 + 4 = 64$$



CRWC Weekly Clean



River Woods Park

4/26/23

Pro + Lydia

Location

Date

Supervisor

Name (First and Last)

New CRWC Volunteer?

X	1. Sonya R. Williams	Yes
X	2. TAMMIE GRAY	YES
X	3. Roxanne Miller	yes
X	4. Shannon Dallen	yes
X	5. Katie Gravelle	yes
X	6. Kevin Valimont	yes
X	7. Dave McCarthy	yes
X	8. Tim JOHNSTON	no
X	9. Jordyn Wilson	yes
X	10. Dana MacCallumMhor	yes
X	11. Gordon Greenley	NO
X	12. Colette Narduske	Yes
X	13. Kahlia Robinson	yes
X	14. Chris Kuehl	yes
X	15. Mink Hash	yes
X	16. Kelsey Marcy	Yes
X	17. Skyler Principe	N
X	18. Taylor Haugen	N
X	19. Genevieve Taylor	yes
X	20. BERNAO J. GULOWSKI JR	N
	21. TIM PIPPA	NO

Comerica + Ally + SEA LIFE



CRWC Weekly Clean



WATERFORD RIVER WALK

5-3-23

LYDIA

Location

Date

Supervisor

Name (First and Last)

New CRWC Volunteer?

	Name (First and Last)	New CRWC Volunteer?
1.	BERNIE	No
2.	Nancy Broyles	No
3.	Tim	No
4.	Genevieve Taylor	NO
5.	Taylor Haugen	No
6.	Skyler Principe	N
7.	Tim PIPAH	NO
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✓
 KAYAC ✓
 ✓
 ✓



CRWC Weekly Clean



Macomb Corners Park

5/10/2023

Cole

Location

Date

Supervisor

PRESENT BUT DID NOT

PARTICIPATE DUE TO COURT TIME PUSH BACK

Name (First and Last)

New CRWC Volunteer?

	Name (First and Last)	New CRWC Volunteer?
1.	Genevieve Taylor	N
2.	Heather Phelps	Y
3.	Tim JOHNSTONE	N
4.	TIM PIPPIN	No
5.	BERNIE	
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5+2+316



CRWC Weekly Clean



Boulan ~~P~~ARK

5-17-23

LYDIA

Location

Date

Supervisor

Name (First and Last)

New CRWC Volunteer?

75
58
108
✓ 19
✓ 2
✓ 5
✓ 18
✓ 0.5
✓ 10
✓ 2
✓ 1
✓
✓ (K)
384

1.	Amanda Arndt	
2.	Riley Scher	yes
3.	Rebecca Godwin	
4.	Tim JOHNSTONE	No
5.	Alan de la Fuente	Yes
6.	Samantha Averitt	yes
7.	Skyler Principe	N
8.	Genevieve Taylor	N
9.	Heather Phelps	N
10.	Kahlan Robinson	N
11.	Taylor Haugen	N
12.	Tim PIPPIN	NO
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CRWC Weekly Clean



HAWTHORNE PARK

5-24-23

LYDIA

Location

Date

Supervisor

Name (First and Last)

New CRWC Volunteer?

383.5

24	14	1.	Gemma Delie		
23		2.	Hannah Perry		
32	5	3.	BERNARD J GULOWSKI, Jr	✓	N
42	13	4.	Lexi Kincaid		
8	15	5.	Tim JONASTON	✓	No
11	4	6.	Tim Nash	✓	No
20	17	7.	Alyssa Tudge	✓	NO
9		8.	Raymond Gilbert 10:09AM		NO
3		9.	Genevieve Taylor 10:10am		NO
8	28	10.	Kahlan Robinson	✓	No
32		11.	TIM PIPPIN	✓	NO
12		12.			
2		13.			
0.5		14.			
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		21.			

PTRES



CRWC Weekly Clean



JOSEPH DELIA PARK

5-31-2023

LYDIA

Location

Date

Supervisor

	Name (First and Last)	New CRWC Volunteer?
✓ 1.	Tim JOHNSON ⁷	No
✓ 2.	Ennie Filip ⁵	No
✓ 3.	Jan Jan ^{6 + 0.5}	Yes
✓ 4.	Harun Bapponic ⁸	YES
✓ 5.	Genevieve Taylor ^{7 + 0.5}	NO
✓ 6.	Braden Steen	yes
✓ 7.	Zachary Fenton ^{0.5}	yes
✓ 8.	Connor Paul ^{0.5}	yes
✓ 9.	Zach Peterson	yes
✓ 10.	Christine Garrett ^{0.5}	No
✓ 11.	Michael Garrett ^{0.5}	No
✓ 12.	Heather Phelps ¹	No
✓ 13.	Tim Pippin ¹	NO
✓ 14.	Skyler Principe ^{0.5}	N
15.	Lauren Grauer ^{13 + 10}	N
16.	Gordon Greenley ^{2.5}	N
17.	Jordyn Wilson ^{2.5}	NO
18.	Rebecca Godwin ⁵	N
19.	Riley Scher ¹⁴	NO
20.	Kellie Koba ^{5.0}	Yes
21.	Erik Schreefel ^{18 + 5}	No

BEANIE -

6
27



CRWC Weekly Clean



DAVID SHEPHERD PARK

6-7-2023

LYDIA

Location

Date

Supervisor

Name (First and Last)

New CRWC Volunteer?

	Name (First and Last)		New CRWC Volunteer?
✓ 1.	Genevieve Taylor 6, 3		N
✓ 2.	Felicia Pawarchie 3, 1		Y
✓ 3.	Shanda Knight 3		Y
4.	Alyther Phelps 5		N
✓ 5.	Kathy Toft 3, 1		Y
✓ 6.	Sharon Nakpairat 0.5, 1		Y
✓ 7.	TIM PIPPIN		NO
✓ 8.	BERNARD J. GULOWSKI 3e 29		N
✓ 9.	Mike Rich 7		Y
10.		615	
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CRWC Weekly Clean



DOLLARD PARK

6-14-23

LYDIA

Location

Date

Supervisor

Name (First and Last)

New CRWC Volunteer?

	Name (First and Last)		New CRWC Volunteer?
1.	Heather Phelps	4	N
2.	Harun Bajgoric	3	NO
3.	Skyler Principe	'	N
4.	Leyla Bajgoric	'	Y
5.	Genevieve Taylor	'	N
6.	Brett Trevino	'	N
7.	Judian Trevino	'	N
8.	BERNIE	"	
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CRWC Weekly Clean



Friendship Park

6/28/23

Pro

Location

Date

Supervisor

Name (First and Last)

New CRWC Volunteer?

	Name (First and Last)	New CRWC Volunteer?
✓ 1.	Tim Johnson	✓
2.	Faith Borowy	✓
3.	Isma Gomez	✓
4.	Dakaria Warren	✓
5.	Jermaine M Robertson	
6.	VA Linda Shirkley	✓
7.	Isaiah Freeman	✓
✓ 8.	Skyler Principe	N
9.	Lucas Van Houten	Y
10.	Jacob VanHouten	Y
11.	Dominic Mangiapane	
✓ 12.	Jordan Principe	Y
✓ 13.	Genevieve Taylor	N
✓ 14.	Tim PIPPA	NO
15.		
16.		
17.		
18.		
19.		
20.		
21.		

$$7 + 0.5 + 0.5 + 2 = 10$$



CRWC Weekly Clean



Sharkside Park

6/21/23

Pro

Location

Date

Supervisor

Name (First and Last)

New CRWC Volunteer?

1.	DEAN JOHANSON	COOPER
2.	JEFF CAVALI	COOPER
3.	JEFF KOSMATA	COOPER
4.	Paul Putman	Cooper
5.	STEVE FENICHA	COOPER
6.	Steve Wohlawski	Cooper
7.	Teresa Vanthorn	Cooper
8.	Owen Vanthorn	Cooper
9.	Michelle Colley	Cooper
10.	Dawn Henton	Volunteer
11.	RICK PINKER	COOPER
12.	RONALD HIMMLER	NO
13.	TAJ HUSSAIN	COOPER
14.	Daniela Hariga	COOPER
15.	Shannon Riley-O'Neill	NO
16.	Denise Smith	NO
17.	Heather Phelps	NO
18.	Tim Jones-stone	NO
19.	Genevieve Taylor	NO
20.	Tim Pippin	NO
21.	Julian Trevino	NO
22.	Brett Trevino	No



CRWC Weekly Clean



FIREFIGHTERS PARK

7-12-23

Lydia

Location

Date

Supervisor

Name (First and Last)

New CRWC Volunteer?

	Name (First and Last)		New CRWC Volunteer?
1.	Tim JOHNSTONE	5	No
2.	Tim PIPIN	0.5	NO
3.	Marco Smith	0.5	No
4.	Devlin Rhoderick	0.5	yes
5.	Denise Smith	0.5	No
6.	Lucas Van Houten	0.5	Yes
7.	Skyler Principe	1	N
8.	Genevieve Taylor	4	N
9.	Heather Phelps	1	N
10.	Dianne Slager + P. Kellor	3	Y
11.	Danielle Beuregard + Keoni Simmons		Y
12.	BERNIE		
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CRWC Weekly Clean



CP HERITAGE PARK

7-19-23

LUDIA

Location

Date

Supervisor

Name (First and Last)

New CRWC Volunteer?

1.	Tony Deshaun	✓		New
2.	Genevieve Taylor	✓	1	NO
3.	TOM EHRKE	✓	3	NO
4.	Domytic Monginone	✓	5	NO
5.	Karen Parker	✓		Yes
6.	BRYAN McCANN	✓		YES
7.	Jim Kwiatkowski	✓		YES
8.	Sue Sites	✓		YES
9.	Kelly Capoccia	✓		yes
10.	Math Lang	✓		yes
11.	Jessica messano	✓		yes
12.	Mackenzie/colum Doyle	✓	14	yes
13.	Tim PIPPAI	✓	1	NO
14.	BERNIE GULOWSKI JR	✓	29	N
15.	Riley Scher	✓	17	NO ☺
16.	Lauren Brauer	✓	3	Nope!
17.	Heather Phelps	✓	11	NO
18.				
19.				
20.				
21.				

(CC)

4/12/23!



CRWC Weekly Clean



BEAUDETTE PARK

7-26-23

Lydia

Location

Date

Supervisor

343

Name (First and Last)

New CRWC Volunteer?

1. GREG PETROSKY	H20 + 10430 + 12 + 4	NO
2. Lara Tremore-Spears		
3. Nisha Singhi	05	
4. Denise Smith	4 + 4	NO
5. Marco Smith	1 + 6	NO
6. Tim Jankowski	+14	NO
7. Trevor May	(NHS) 5	Yes
8. Heather Phelps	2	NO
9. Lucas Van Houten	1.5	NO
10. Jacob van Houten	0.5	NO
11. Jordyn Wilson		NO
12. Rebecca Godwin		NO
13. Ashley Watts		yes
14. Brittany Stamper		yes
15. Riley Scher		NO ;
16. Gordon Greenley		NO
17. Colum Doyle		NO
18. Sabrina Allen		Yes
19. Skyler Principe	1	N
20. Genevieve Taylor	5	N
21. Jonathan W. Branch		N

SL: $9 + 8 + 1 + 18 + 36 + 100 + 40 + 1.5 + 7 + 4 + 1 = 224$



CRWC Weekly Clean



AVON NATURE PRESERVE

8-2-23

LYDIA

Location

Date

Supervisor

VOLUNTEER APPRECIATION

Name (First and Last)

New CRWC Volunteer?

1.	Dominic Mangiapane	0.5	No
2.	Tim JOHNSON	3	✓
3.	RONALD HIMMLER	14	NO
4.	Genevieve Taylor	0.5	NO
5.	Marco Smith	6	NO
6.	Denise Smith	6	NO
7.	David Hilden	0.5	NO
8.	Tom Schwartz	2	NO
9.	Gary R. Keish #	10	NO
10.	Bernard J. Gulowski Jr	12	NO
11.	Tim PIPPIN	-	NO
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CRWC WEEKLY CLEAN SIGN IN

NICHOLSON NATURE CENTER 8-9-23 LYDIA

	NAME	NEW VOLUNTEER?	
✓ 1)	DONALD HIMMLER	NO	3
✓ 2)	Avery Wasmund	Y	3
✓ 3)	Jessa Wasmund	Y	3
✓ 4)	Timothy Wasmund	Y	4
✓ 5)	Meagan Ismail	yes	1.5
✓ 6)	KRIS ISMAIL	yes	2
✓ 7)	Tim JOHNSTONE	N	30
✓ 8)	Tom PIPPIN	H	1
✓ 9)	Dominic Wasmund	No	0.5
✓ 10)	Heather Phelps	NO	0.5
✓ 11)	Leo Comfort	Yes	1+10
✓ 12)	Brendan Duff	Yes	11
✓ 13)	KAY COLLINS		0.5
✓ 14)	BERNARD GUAWSKI JR		0.5
✓ 15)	Brett Trevino	NO	



CRWC Weekly Clean



Halmich Park

8/16/23

Cole 1.5

Location Warren

Date

Supervisor

	Name (First and Last)	New CRWC Volunteer?	
-	1. Genevieve Taylor	N	1
-	2. Tim JONASZON	N	3.5-4
✓	3. Chelsea Ringl	Y	} 3.5
✓	4. Daniel Kogalski	Y	
✓	5. RONALD HIMMLER	NO	6+4
✓	6. Lucas Van Houten	NO	3
✓	7. Silob van Houten	NO	3
✓	8. Tim PIPPIN	NO	0
	9. BERNE		26
	10.		
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	21.		

total lbs: 33.5



CRWC Weekly Clean



James C. Nelson

8/30

Pro

Location

Date

Supervisor

GM Cares

Name (First and Last)

New CRWC Volunteer?

1.	ISAAK XIDNG	
2.	Linda Dzurka	
3.	TYLER WAYNE	
4.	Lee Anderson	
5.	JASON FISHER	
6.	BRADLEY GAYL	
7.	ELISA MONTEIRO	
8.	ARON POTETE	
9.	DAN GIFFORD	
10.	BAILEY HILTON	
11.	CHIP THORP	
12.	PHIL KUCERA	
13.	PAUL KIM	
14.	Helena Matyas	
15.	THERESE PINAZZO	
16.	JAMES DYKSTRA	
17.	REUNALD M. GAY	
18.	CRYSTAL LEFEBVRE	
19.	Aimee Ann Kenner	
20.	LEO RUSSO	
21.	RAHAU DAS	



CRWC Weekly Clean



Name (First and Last)

New CRWC Volunteer?

21.	RAZA SYED	
22.	JEFF WITT	
23.	STEVE DWYZAREK	
24.	Max Uraherst	
25.	Jordan Swisher	
26.	Lisa Wang	
27.	SRINIVAS SUBRAMANIAN.	
28.	Steve Hunt	
29.	Ray Fabilli	
30.	Jon Meyer	
31.	John Kim	
32.	MATT ERDEY	
33.	Jed Pangilinan	
34.	Tiffany Frederick	
35.	ANDRE JENKINS	
36.	Sean Ryan	
37.	BERNARD J GULOWSKI JR	N
38.	Tim PAPPIN	X10
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40.		
41.		
42.		
43.		
44.		
45.		

Steve Hunt
28

$14 + 5 + 6 + 6 + 5 + 5 + 5 + 13.5 + 5 + 5.5 + 26 + 10 + 14.5 + 6 + 2 + 9 + 2 + 4 + 2 + 0.5 + 2$
 $+ 15 + 7.5 + 3.5 + 7 + 32 + 4 + 16 + 40.5 + 7 + 17 + 1 + 15 + 10 + .5 + .5 + 5 + 30$
 $+ 4 + .5 + 6 + 2 + 43 + 30 + 1.5 + 11 + 9 + 7 + 1 + 8 = 535.8 \text{ lbs}$



CRWC Weekly Clean



BEAVER CREEK PARK

8-30-23

LYDIA

Location

Date

Supervisor

Name (First and Last)

New CRWC Volunteer?

1. Michael McBRIDE	Yes
2. PAUL SHOCK	YES
3. JIM SCHORNACK	YES
4. ISONGHOON TOMY AHN	YES
5. JASON DUMAS	Yes
6. JACKSON ROBAR	Yes
7. Trevor Korns	Yes
8. GEORGE STENCEL	YES
9. RONALD HIMMER	NO
10. Adam H Barren	yes
11. HAROLD BALL	YES
12. Eric Chesnick	Yes
13. ANTONIO CORBACHO	YES
14. CHRISTOPHER FULLIS	YES
15. Neil K	YES
16. Chengxiang Wan	Yes
17. AMERICO MIYAUURA	YES
18. ERIC MEISTER	YES
19. SANDRO LIMA	YES
20. PAUL ARNONE	YES
21. KEN MICHE	YES



CRWC Weekly Clean



Name (First and Last)

New CRWC Volunteer?

21.	KYLE ROBIE	YES
22.	DANNY BOWERS	YES
23.	STEPHEN KAPASKI	YES
24.	MIKE GUNTHER	No
25.	FARAH PIOTO	YES
26.	Simon King	YES
27.	Ketel Patel	yes
28.	Muel Stplet	YES
29.	Ann Crossley	YES
30.	TIM KOZUB	YES
31.	Lucy Cervone	yes
32.	BRYAN NESSHT	"
33.	MICHAEL SMCE	"
34.	Cherisse Hoata	"
35.	Jane Romero	yes
36.	Paul Rabahy	Yes
37.	PHILLIP BARTOSIK	YES
38.	Chelsea Sweeney-DuChene	No
39.	Ron Estrom	NO
40.	Ellen Lykes	Yes
41.	Kevin Kasik	Yes
42.	Kel Rodriguez	No
43.	BOB BONFACE	YES
44.	Bob Muntz	YES
45.	BLAKE ALLEN	YES

Handwritten notes and signatures on the right side of the table, including a vertical list of numbers (2003, 2008, 2013, 2018, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100) and a box containing the number 167.

~~WATER CONSTRUCTION BARCADE + WATER LEVEL~~

6+13+20+15+15+20+20+4+5+9+10+3+13+16+7+20+33+25+10+25+10+10+3+6+5
 185 177 234



CRWC Weekly Clean



ZND PAGE

BEAVER CREEK PARK

8-30-23

Location

Date

Supervisor

+10 BAGS @ OAKLAND MALL

Name (First and Last)

New CRWC Volunteer?

1. Lindsay Miller	
2. Genna Uamas	yes
3. CRAIG SASS	
4. IAN BURN	YES
5. EWEN DAVENPORT	YES
6. Hailey Callaghan	yes
7. Lewis Piccoli	yes
8. Ray Chan	yes
9. BRANDON MALCOLM	YES
10. SHARON GARCIA	YES.
11. Chrissy Nelson	yes
12. Benjamin Fenner	yes
13. Ann Lemmon	yes
14. KEVIN FOISSON	YES
15. Skyler Principe	N
16. Renato D'Aristotle	yes
17. DAVID LADACH	YES
18. Zachary Pasika	
19. BRIAN BIRCHALL	YES
20. PHILIP LACROIX	yes
21. JARED DYKSTRA	YES



CRWC Weekly Clean



Name (First and Last)

New CRWC Volunteer?

21.	Roxanne McWilliams	✓
22.	Clayton Miller	✓
23.	Tim Pappas	NO
24.	Kaci Hossain	✓
25.	Skyler Katsaros	✓
26.	James Ginfeller	✓
27.	Andrew Amaral	✓
28.	Genevieve Taylor	NO
29.	Greg Pavlou.C	NO
30.	Sharon Henderson	yes
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1679+1+6+6



CRWC Weekly Clean



HARTSIG PARK

9-6-23

Lynn

Location

Date

Supervisor

	Name (First and Last)		New CRWC Volunteer?
1.	RONALD HIMMLER	3	NO
2.	Scott Schutzki	1	YES
3.	Skyler Principe	1	N
4.	BERNARD J GULOWSKI JR	80	N
5.	TIM PIPPIN		NO
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3



CRWC Weekly Clean



DODGIE PARK

9-13-23

LYDIA

Location

Date

Supervisor

PAGE 1

Name (First and Last)

New CRWC Volunteer?

1. Arek Szymanski	
2. Elda Villanueva	
3. Arthur Phelps	
4. Skype Rousos	
5. Lauren Ackerman	
6. Mia Pasula	
7. CARMEN CASTRONERO	
8. GARY LUNSFORD	
9. Maggie Shuler	
10. Inda Kenhard	
11. Taylor Cole	
12. Taylor Green	
13. Jimmy Connor	
14. Mackenzie Livemais	
15. Emily Marchand	
16. Malisa Nguyen	
8 17. Tim JOHNSONE	
18. Kellie Kloba-Young	
19. Amanda Arnold	
20. Dana MacCallumMhor	
21. DAVID LINES, JR.	



CRWC Weekly Clean



Name (First and Last)

New CRWC Volunteer?

21.	JORDAN JONES	X
22.	Genevieve Taylor	N
23.	Tom Marczenko	N
24.	Rachelle Kunkle	
25.	Matt Chwikla	Y
26.	Jacob Earl	Y
27.	sachin Ubale	Y
28.	Paul Burkell	X
29.	Matt Silberg	X
30.	Enrique Sauerer	X
31.	Devon DuBose	X
32.	Karel Goralicko	✓
33.	Juliana Attard	✓
34.	Megan Brokey	✓
35.	Rebecca Godwin	N
36.	Nawson Holloway	Y
37.	Riley Scher	NO
38.	Erik Schreefel	N
39.	Ashley Watts	N
40.	Diane Accavitti	Y
41.	Kay Collins	N
42.	Briana Rodriguez-Kelley	Yes
43.	Igor Kudym	Y
44.	Tim PIPPIN	NO
45.	Don Vandeputz	No

FORVIA, SHIFT DESIGN, SEA LIFE, GM DESIGN



CRWC Weekly Clean



DODGE PARK

9.13.23

Location

Date

Supervisor

PAGEZ

Name (First and Last)

New CRWC Volunteer?

1. Cathy Johnson	
2. DKIN WESTERMANN	
17 3. BERNARD GULOWSKI	
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169

37 + 10 + 2 + 17 + 8 + 3 + 1 + 1 + 5 + 1 + 5 + 2 + 2 + 1 + 1 + 1 + 6 + 2 + 3 + 2 + 2 + 7 + 8 + 1 + 6 + 5 + 15 + 15 + 19



CRWC Weekly Clean



MAYNARD "RED" AURAND PARK

9-20-23

Lynia

Location

Date

Supervisor

Name (First and Last)

New CRWC Volunteer?

	Name (First and Last)		New CRWC Volunteer?
1.	Chelsea King	1	N
2.	Daniel Rogalski	1	N
3.	Skyler Principe	2	
4.	Bernie	10	
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CRWC Weekly Clean



MAE STECKER PARK

9-27-23

LYDIA

Location

Date

Supervisor

Name (First and Last)

New CRWC Volunteer?

1. Taylor Haugen	1.5	
2. Skyler Principe	1	
3. Kahlan Robinson	1	
4. Kay Collins	2	
5. BEENIE	16	
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CRWC Weekly Clean



STONEY LAKE PARK

10-4-23

LYDIA

Location

Date

Supervisor

Name (First and Last)

New CRWC Volunteer?

1.	TIM JOHNSTONE	8 + 8	
2.	Skyler Principe	4	
3.	BERNIE	32	
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CRWC Weekly Clean



Lake St Clair Metro Park

10-11-23

LYDIA

Location

Date

Supervisor

Name (First and Last)

New CRWC Volunteer?

1.	Ashley Koehler	9	yes
2.	DJ Mcleod	10	yes
3.	Tom JOHNSTONE	5+8	no
4.	TAM PIPPIN	3	NO
5.	Tyler	1	yes
6.	BERNARD J GULOWSKI JR	59	NO
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CRWC Weekly Clean



Oakland Park

10/18/23

Pro

Location

Date

Supervisor

Name (First and Last)

New CRWC Volunteer?

1.	BERNARD J. GULOWSKI JR	N
2.	Tim JOHNSTONE	No
3.	Steph Shehadah	
4.	Carly Zrinyi	
5.	Matthew Smith	Yes
6.	Ashley Watts	No
7.	Amanda Hinde	No
8.	Kellie Kuhn-Yang	No
9.	Dana MacCallum Mhor	No
10.	Rebecca Godwin	No
11.	Erik Schreefel	No
12.	TIM PIPPIN	NO
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CRWC Weekly Clean



THELMA SPENCER PARK

10-25-23

LYDIA

Location

Date

Supervisor

	Name (First and Last)		New CRWC Volunteer?
✓ 1.	Natalie Guenther	5	NO
✓ 2.	Nicholas Bone	3	Yes
✓ 3.	Tim Johnstone	10+1+11	No
✓ 4.	Ashley Kuchler	1	N
✓ 5.	Lauren Grauer	1	N
✓ 6.	Skyler Principe	1.5	N
✓ 7.	Jessica Kamyszek	0.3	Y
✓ 8.	Malisa Nguyen	0.3	Y
✓ 9.	Adrianna Monacelli	0.3	Y
✓ 10.	Kahlan Robinson	0.5	No
✓ 11.	Erik Schreefel		No
✓ 12.	Riley Scher		NO
✓ 13.	Rebecca Godwin		NO
✓ 14.	BELNE GULOWSKI	19	
✓ 15.	TIM PIPPIN	1	NO
16.			
17.			
18.			
19.			
20.			
21.			

SL = 13 + 36 + 1 + 9 + 2 = 61

120



CRWC Weekly Clean



River Bends Park

11/8/23

Pro

Location

Date

Supervisor

Name (First and Last)

New CRWC Volunteer?

1.	John Rakowski	Yes
2.	Tim Jankstowicz	No
3.	Brianna Rodriguez-Kelley	No
4.	Tim PIPPIN	NO
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20.		
21.		

1+7+10



CRWC Weekly Clean



Starr-Loyce Park

11/15/23

Pro

Location

Date

Supervisor

Name (First and Last)

New CRWC Volunteer?

	Name (First and Last)	New CRWC Volunteer?
1.	Tim Pappal	NO
2.	Ashley Kochler	M
3.	J King	YES
4.	Nate Jallbert	No
5.	Kahlan Robinson	No
6.	BERNARD J. GULOWSKI JR	No
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		
17.		
18.		
19.		
20.		
21.		

$$0.5 + 1 + 1 + 2 + 0.5 + 0.5 + 1 = 15.5$$

APPENDIX H

Presentations and Workshops

Contents

Tracking Sheet for 2022 Adopt-A-Stream Training

Tracking Sheet for 2023 Adopt-A-Stream Training

Flyers for Adopt-A-Stream Trainings

Sign-In Sheets for Adopt-A-Stream Trainings

Tracking Sheet for 2022 Presentations and Workshops

Tracking Sheet for 2023 Presentations and Workshops

Flyers for Community Presentations and Workshops

Sign-in sheets for Community Presentations and Workshops

Event Title	Date	Location	Description	Total Attendance	# of sites	Subwatershed
Adopt-A-Stream Training	3/30/2022	Clinton Macomb Public Library - North Branch	Citizen Science water quality monitoring training	8		NB
Adopt-A-Stream Training	4/8/2022	Burgess-Shadbush Nature Center	Citizen Science water quality monitoring training	7		CREW
Adopt-A-Stream Training	4/11/2022	Virtual in partnership with Chesterfield Public Library	Citizen Science water quality monitoring training	1		AB
Adopt-A-Stream Training with Bug ID	4/16/2022	CRWC office	Citizen science water quality monitoring training and benthic ID	13		CM
Adopt-A-Stream Monitoring	5/7/2022	Watershed wide	Citizen science water quality monitoring and benthic ID	250	37	ALL
Adopt-A-Stream Training	9/1/2022	Oxford Public Library	Citizen science water quality monitoring training	7		SP
Adopt-A-Stream Training	9/15/2022	Wint Nature Center, Independence Oaks	Citizen science water quality monitoring training	2		UC
Adopt-A-Stream Training with Bug ID	9/17/2022	CRWC office	Citizen science water quality monitoring training and benthic ID	10		CM
Adopt-A-Stream Training	9/19/2022	Lake St. Clair Metropark	Citizen science water quality monitoring training	3		CREW/DD
Adopt-A-Stream Monitoring	10/1/2022	Watershed wide	Citizen science water quality monitoring and benthic ID	250	29	ALL
Stonefly Training	1/30/2023	CRWC office	Citizen science water quality monitoring training	17		CM
Stonefly Search	2/4/2023	Watershed wide	Citizen science water quality monitoring and benthic ID	70		ALL
Adopt-A-Stream Training	3/28/2023	Warren Civic Center Library	Citizen science water quality monitoring training	5		RR
AAS Training total				56		
Grand total				643		

2 Bug ID
2 Monitorings
8 regular training events

Event Title	Date	Location	Description	Total Attendance	# of sites	Subwatershed
Adopt-A-Stream Training	4/11/2023	Ray Township Public Library	Training on citizen science water quality monitoring	0		NB
Adopt-A-Stream Training	4/12/2023	Eastpointe Memorial Library	Training on citizen science water quality monitoring	0		CC
Adopt-A-Stream Training	4/18/2023	Orion Township Public Library	Training on citizen science water quality monitoring	4		SP
Adopt-A-Stream Training with Bug ID	4/29/2023	CRWC Office	Training on citizen science water quality monitoring with macroinvertebrate identification	10		CM/All
Adopt-A-Stream monitoring	5/6/2023	Watershed-wide	Volunter citizen science water quality monitoring	240	38	All
Adopt-A-Stream Training	9/11/2023	Warren Civic Center Library - Virtual	Training on citizen science water quality monitoring	4		RR
Adopt-A-Stream Training	9/12/2023	New Baltimore City Hall	Training on citizen science water quality monitoring	2		CC
Adopt-A-Stream Training	9/19/2023	Ray Township Public Library	Training on citizen science water quality monitoring	5		NB
Adopt-A-Stream Training	9/27/2023	Van Hoosen Farms	Training on citizen science water quality monitoring	3		SP
Adopt-A-Stream Training with Bug ID	9/30/2023	CRWC Office	macroinvertebrate identification	15		CM/All
Adopt-A-Stream monitoring	10/7/2023	Watershed-wide	Volunter citizen science water quality monitoring	250	46	All

2 bug ID

9 regular trainings

Total volunteers	490
Training Attendance	43



CRWC

CLINTON RIVER WATERSHED COUNCIL

2022 Spring Adopt-A-Stream Trainings

March 30, 2022 //
6:30pm - 8:30pm

Clinton Macomb Public Library
54100 Broughton Rd, Macomb
Register: <https://forms.office.com/r/ZmeiYyRCH4>

April 11, 2022 //
5:30pm - 7:30pm

ONLINE hosted by CRWC in partnership with Chesterfield Public Library
Register: <https://www.chelibrary.org/>

April 8, 2022 //
6:30pm - 8:30pm

Burgess-Shadbush Nature Center
4101 River Bends Dr, Shelby Twp
Register: <https://forms.office.com/r/ZmeiYyRCH4>

April 16, 2022//
9:00am - 1:00pm

With Bug I.D. Training
CRWC OFFICE
1115 W. Avon Road
Rochester Hills, MI 48309
Register: <https://forms.office.com/r/ZmeiYyRCH4>

Adopt-A-Stream is a volunteer lead program that empowers community members to protect local streams and rivers in a hands on way by monitoring water quality.

-
-
-
-
-
-
-

**SCAN
TO REGISTER**



May 7, 2022 //
**SPRING ADOPT A STREAM
MONITORING DATE!**





March 28, 2023 //
5:30 p.m. - 7:30 p.m.
Warren Public Library
1 City Square,
Warren, MI 48093

April 18, 2023 //
6:00 p.m. - 8:00 p.m.
Orion Township Public Library
825 Joslyn Rd,
Lake Orion, MI 48362

April 11, 2023 //
6:00 p.m. - 8:30 p.m.
Ray Township Public Library
64255 Wolcott Rd,
Ray, MI 48096

April 29, 2023 //
9:00 a.m. - 1:00 p.m.
Bug I.D. Training
CRWC OFFICE • 1115 W. Avon Rd
Rochester Hills, MI 48309

April 12, 2023 //
1:00 p.m. - 3:00 p.m.
Eastpoint Memorial Library
15875 Oak Ave,
Eastpointe, MI 48021



SCAN TO REGISTER
Or visit crwc.org under
Programs → Adopt-A-Stream



Adopt-A-Stream



You don't have to be a scientist to make big improvements in our environment! Everyday people getting involved in water quality monitoring has resulted in positive changes across the nation, the state, and right here in the Clinton River Watershed.

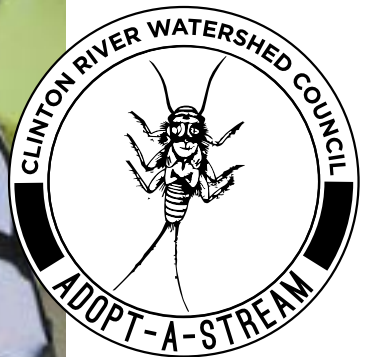
A stream's health can be determined by the number and types of bugs and aquatic insects that live in it. In May and October, Adopt-A-Stream volunteers help the Clinton River Watershed Council gather valuable data that is utilized to assess water quality and support important decision-making regarding waterway protection and restoration.



HOW IT WORKS

Volunteers are broken into groups to survey sites throughout the watershed. Each group is assigned a site, and many groups return to the same site every year.

Team Leaders help their groups coordinate and follow site procedures to ensure that data is being collected in a safe and consistent way. Participants collect samples from the river using a net, pick macroinvertebrates from the samples, identify habitat types, and report on stream characteristics.



GET INVOLVED

Anyone interested in participating in Adopt-A-Stream is welcome to attend. While no formal experience is required to assist with water quality monitoring, it is recommended that volunteers take one of the Adopt-A-Stream Trainings.

Register for a training or check out additional information on our website to get started.

TRAINING DATES

Virtual: September 11

6:00 p.m. - 8:00 p.m.
Warren Civic Center Library

In-Person: September 27

6:00 p.m. - 8:00 p.m.
Van Hoosen Farms

In Person: September 12

6:00 p.m. - 8:00 p.m.
New Baltimore City Hall

In-Person: September 30

With BUG ID Training
9:00 a.m. - 12:00 p.m.
CRWC Office

Virtual: September 19

5:00 p.m. - 7:00 p.m.
Ray Township Public Library

ADOPT-A-STREAM MONITORING DATE

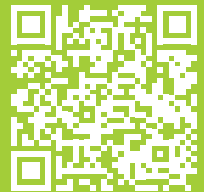
October 7

The Adopt-A-Stream monitoring date and time are set, but each group can coordinate with their site leader if another time works better for the group.

LEARN MORE & REGISTER

Learn more, register for trainings, and register to participate in Adopt-A-Stream by scanning the QR Code or at CRWC.org under **Programs** → **Adopt-A-Stream**.

crtc.org/programs/volunteer/adopt-a-stream



EVENT: Adopt-A-Stream Training		LOCATION: Clinton Macomb Public Library ^{North Branch}		Send Me Information About: (please check all those that apply)		
DATE: 3/30/2022		PRESENTER: Eric Diesing		Future Presentations	Membership	Volunteer Opportunities
Name	Address/City/State	Zip Code	Email Address	X	X	X
DAVID STUBEN	15750 LAMANT MACOMB	48042	david.stuben@att.net			
* Rebecca Doyle	24168 Grange St., ^{Clinton} Twp.	48036	rld1502@gmail.com Text (586) 245-5058	X		X
* Tyler Gubala <small>• spouse to Pam Kimball</small>	15265 Lakeside Village Dr Apt 101 48038, ^{Clinton} Twp	48038	gubala tyler@gmail.com	X	X	X
* Pam Kimball <small>• spouse to Tyler Gubala</small>	15265 Lakeside Village Dr. Apt 101 Clinton Twp. MI. 48038	48038	pamkimball.life@gmail.com	X	X	X
Ferred Khan	48677 Arnold Dr Macomb, MI 48044	48044	df8645@gmail.com			
Clinton Twp Tom & Karen Layman	40789 Michael Clinton Twp MI 48038	48038	Thomas.Layman@att.net	X		X
Alexis Daniels	47619 Lamplighter Trl Macomb, MI 48044	<u>Waldenburg + Stony</u> 48044	danielsale105@gmail.com	X	X	X

* B. Doyle - Live @ 16 + Harper - site around there wanted

⇒ 16th @ CRWC office
 * 16th @ CRWC office

EVENT: AAS Training		LOCATION: Burgess-Shadbush Nature Center		Send Me Information About: (please check all those that apply)		
DATE: 4/8/22		PRESENTER: Eric Diesing		Future Presentations	Membership	Volunteer Opportunities
Name	Address/City/State	Zip Code	Email Address	X	X	X
Skylar Principle	52272 Watkins Glen Macomb, MI 48042	48042	smprinciple98@gmail.com	X	X	X
Allen Comfort	514 Wilcox St. Rochester, MI 48307	48307	allen.comfort@gmail.com	X	X	X
Katy Madrak	14130 Kerner Sterling Heights, MI 48313	48313	sewmom2@gmail.com	X		X
Andrew Madrak	"	"	andrewinatre@gmail.com	X		X
MIKE GUNTHER	1625 Hillside, Rochester Hills MI	48307	mdgunther@ mdgunther12@gmail.com			✓
Jovan Kelsey	3480 Maceday Hill Waterford, MI 48329	48329	firstclassse@yahoo.com	X	already member	X
Susan Kelsey	3480 Maceday Hill Waterford, MI 48329	48329	skelsey@yahoo.com	X	already member	X

southern WI

EVENT: Adopt-A-Stream + Bug ID training		LOCATION: CRWC Office		Send Me Information About: (please check all those that apply)		
DATE: 4/16/22		PRESENTER: Eric Diesing, Watershed Ecologist		Future Presentations	Membership	Volunteer Opportunities
Name	Address/City/State	Zip Code	Email Address	X	X	X
✓ <i>Stony Creek</i> LUCINA BROWN	3190 Bloomfield Ln Apt 906, Auburn Hills MI	48326	lucyrbrown778@gmail.com	X	X	X
Tom Layman	40789 Michael Clinton Twp Mich	48038	THOMAS.LAYMAN@ATT.NET	X	X	X
✓ <i>existing site</i> Alba Aguirre	1977 Wilson Circle	48306	albalaf@yahoo.com	X	X	X
✓ Diego Esquivel	1977 Wilson Circle	48306	diegoael@hotmail.com	X	X	X
✓ Jason Swanson	8290 Canal Sterling Ht. MI	48324	Jay.Swanson1@gmail.com	X	X	X
✓ <i>Rochester Hills area</i> Janice Moore	1950 Brookfield Ct Roch Hls, MI	48306	jayhmoore@yahoo.com	X	X	X
Matina Green	3648 Aynsley Dr Rochester Hills, MI	48306	gmatina@outlook.com	X		X
✓ Aubrey Morce	1950 Brookfield Ct Roch Hls, MI	48306	aubannan@gmail.com	X	X	X
Kayla Dolney	56125 Birkdale dr Macomb MI	48042	dolneykayla@gmail.com	X		X

✓ = Bug id certified

EVENT: Adopt-A-Stream		LOCATION: Oxford		Send Me Information About: (please check all those that apply)		
DATE: 9/1/2022		PRESENTER: EB		Future Presentations	Membership	Volunteer Opportunities
Name	Address/City/State	Zip Code	Email Address	X	X	X
Christie Brown (Oxford, Rochester area)	1137 Woodbriar Dr. Oxford ME 48371	48371	christie5812@att.net	X		X
Madelyn Swan	250 S. Coats Oxford ME 48371	48371	madelynswan@gmail.com	X		X
Cathy Appleton	617 MECHANIC ST	48371	yldwolf@yahoo.com	X	X	X
Eric Appleton						
Juliane & David Bakos Northern Oakland area	1884 Deer Path Trail Oxford, ME 48371	48371	dvbakos@hotmail.com	X	X	X
Kathleen Dougherty preferred	34 Dow Whitfield Dr Waterford, ME	48329	Kad8186@msn.com	^	☺	X

Clinton River Watershed Council

AAS + Bug ID 9/17/22

CRWC

First Name	Last Name	Zip Code of Residence	Email address	What community would you like to monitor in?
Tom	Layman	48038	thomas.layman@att.net	Auburn Hills
Cathy	Appleton	48371	yldwolfe@yahoo.com	Oxford
Eric	Appleton	48371	yldwolf1@yahoo.com	Oxford
Janice	Moore	48306	jayhmoore@yahoo.com	Roch Hills
Aubrey	Moore	48306	jayhmoore@yahoo.com	Rochester Hills
Austin	Postek	48307	Postek95@comcast.net	Macomb (Temporary North Branch)
Charlotte	Pearce	48377	Kdokdow@gmail.com	
Lisa	Badger	48326	McArthurL2001@gmail.com	Rochester Hills
Juliane	Bakos	48371	dvbakos@hotmail.com	Northern Oakland County
DAVID	BAKOS	48371	dvbakos@hotmail.com	Northern Oakland County. Eric suggested a team on Paint Creek in Rochester needs volunteers.

Keep Current with Clinton River Watershed Council - Sign up for our newsletter!				Send Me Information About: (please check all those that apply)		
Event: Adopt-A-Stream with Bug ID training		Date: 4/29/23 @ CRWC office		Future Events	Membership	Volunteer Opportunities
Name	Address/City/State (optional)	Zip Code (optional)	Email Address	X	X	X
Cathy Appleton	617 MECHANIC	48371 Brandon	yldwolf@yahoo.com	X		X
Eric Appleton	SAME					
Sharon Khouri	25718 Ursuline St. Clair Shores, MI 48313	48313 Stacy Heights	sharonkhouri4@gmail.com	X		X
Ken Koster	20539 Brandonwood Clinton Twp MI	48038 Clinton	kosterk2219@wowway.com	X		
Olivia Brown	672 Hartland Ave Troy 48083	48083 Troy	olivia.jane.369@gmail.com	X		X
Tom West	234 E MaryKnoll Rochester Hills 48309	48309	westtom5181@gmail.com	X		X
William Ford	3286 Spring meadow drive, Rochester MI	48306	Masonford17@gmail.com	✓	✓	✓
Jeff Henselman	2451 Ashberry Ln Shelby Twp MI 48316	48316	Jhanselman86@gmail.com	X		X
Eric Price	414 Miller Ave Rochester MI 483	48307	ejpricebusiness@gmail.com	✓	✓	✓

MOVE THE DISC SITE

Check for list

check

that check or check?

has team

Shelby Creek

Shelby Heights

Rochester

Assign

Keep Current with Clinton River Watershed Council - Sign up for our newsletter!

Send Me Information About:
(please check all those that apply)

Event: Adopt-A-Stream program with
Big ID

Date: 4/29/23 @ CRWC office

Future Events

Membership

Volunteer Opportunities

Name

Address/City/State (optional)

Zip Code (optional)

Email Address

X

X

X

GARY
DOLINSHEK

48307

GJD34@WOWWAY.COM

↑ Left before
the big ID quiz?
Not sure about
his situation?

+ Lydian
Jennifer
Kathryn

EVENT: <i>Adopt-A-Stream Training</i>		LOCATION: <i>Warren Civic Center Library</i>		Send Me Information About: (please check all those that apply)		
DATE: <i>3/28/23</i>		PRESENTER: <i>Kaleigh Snoddy</i>		Future Presentations	Membership	Volunteer Opportunities
Name	Address/City/State	Zip Code	Email Address	X	X	X
<i>JON MILLER SASHA MILLER</i>	<i>ROYAL OAK, MI</i>	<i>48073</i>	<i>jmillere@dennettfarm.com SKtholheiner@gmail.com</i>			<i>X</i>
<i>Ernie Everly</i>	<i>Macomb MI</i>	<i>48044</i>	<i>eje24@gmail.com</i>			<i>X</i>
<i>Jillian Richards please share bug presentation</i>	<i>Macomb</i> <i>MI shelby township</i>	<i>48315</i>	<i>jillian.c.richards@gmail.com</i>			<i>X</i>
<i>Michelle Richards</i>	<i>shelby twp</i>	<i>48315</i>	<i>pbjamr@gmail.com</i>			<i>X</i>
<i>Brooke Richards please share presentation</i>	<i>" "</i>	<i>48315</i>	<i>brooke.callum.richards@gmail.com</i>			<i>X</i>

EVENT: Adopt-A-Stream Training		LOCATION: Orion Twp Public Library			Send Me Information About: (please check all those that apply)		
DATE: April 18, 2023		PRESENTER: Kaleigh			Future Presentations	Membership	Volunteer Opportunities
Name	Address/City/State	Zip Code	Email Address	X	X	X	
Lainey Trenkamp	2130 Chateau Drive Rochester Hills, MI	48309	laineytrenkamp@gmail.com	X	X	X	
William Ford	3286 Spring meadow drive, Rochester MI	48306	Masonford17@gmail.com	X	X	X	
TOM CORRELL	250 GOLDENGATE LAKE ORION MI 48302		tom.c.correll@gmail.com	X	X	X	
Kathleen DOUGHERTY	3466 Whitfield Whitford, MI 48329	48329	Kad8186@msn.com	X	X	X	

Stoney
Creek
Paint
Creek
Lizet
✓

Which training will you be attending?

9/19/23 5pm-7pm virtually with Ray Township Public Library

9/19/23 5pm-7pm virtually with Ray Township Public Library

9/19/23 5pm-7pm virtually with Ray Township Public Library

9/19/23 5pm-7pm virtually with Ray Township Public Library

9/19/23 5pm-7pm virtually with Ray Township Public Library

Name2

Cosette J Rowland

Michael VanHorn

Valerie Jakubowski

David Wirth

Anna Harris

Email2

bobcoe7@att.net

mvanhorn8893@gmail.com

vjake@tir.com

wirth.dave@gmail.com

a.harriann@gmail.com

EVENT: Adopt-A-Stream & Bug ID		LOCATION: CRWC Office		Send Me Information About: (please check all those that apply)		
DATE: 9/30/23		PRESENTER: Kalayn & Mikela		Future Presentations	Membership	Volunteer Opportunities
Name	Address/City/State (optional)	Zip Code	Email Address	X	X	X
• Trevor Zaleski	29070 Pinehurst Roseville MI	48066	trevor.zaleski@gmail.com	X	X	X
• ✓ Janice Moore	1950 Brookfield Ct Rochester Hills MI	48306	janhmoore@yahoo.com	X	X	X
• ✓ Aubrey Moore	1950 Brookfield Ct Rochester Hills MI	48306	aubmoore@gmail.com	X	X	X
Dwan VanHorn		48326	dwanvanhorn@ dwanvanhorn015@gmail.com			X
Teresa Vanhorn	3739 Eaton Gate Auburn Hills MI	48326	teresavanhorn248@gmail.com			
✗ Jeremy Carter	22637 N Keystone Way Clinton Twp, MI	48036	ddgr815@protonmail.ch	X	X	X
• Kahlan Robinson	882 Mapleview Ct Rochester Hills MI	48307	ktrobinson97@hotmail.com	X	X	X
✓ Shari Walla	6780 31 Mile Rd. Washington, MI	48095	shari.walla@att.net	X	X	X
✓ LARRY WALLA	6780 31 MILE RD WASHINGTON	48095	L.E.WALLA1962@gmail.com	X	X	X

EVENT: AAS # Bug ID		LOCATION: CRWC Office		Send Me Information About: (please check all those that apply)		
DATE: 9/30/23		PRESENTER: Kaleigh + Mikela		Future Presentations	Membership	Volunteer Opportunities
Name	Address/City/State (optional)	Zip Code	Email Address	X	X	X
Garvin Drill	149 Spive Ln Rochester MI	48307	garvindrill2@gmail.com			
• ✓ Cathy & Eric Appel	617 Melrose St	48371	yldwolf@yahoo.com			X
Local Edward O'Brien	5026 Arrowhead Rd West Bloomfield MI	48323	eoobrien1108@gmail.com	X	X	X
Peter & Heidi McInnes	22106 Dorion Scs 4	48082	mcinneshp@aol.com	X	X	X

Sold keys

Event Title	Date	Time	# of presentations	Presenter	MS4 permittee	Location	Total Attendance	Subwatershed	Description
Intro to CRWC	4/12/2022	7:00-8:30pm	1	Kaleigh	Macomb County	MSU -Extension Building	17	CM and NB	4-H Youth Council Presentation on CRWC and stormwater basics
Nature Based Solutions for Handling Stormwater	4/19/2022	7:00-8:30pm	1	Kaleigh	Rochester Hills	Rochester Hills Public Library	6	SP	Rain gardens, rain barrels, and general landscaping for water quality
Invasive Species Presentation	4/22/2022	12:30pm	1	Pronoye	Auburn Hills	Hawk Woods Park and Campground	39	CM	Presentation on threats to freshwater, including invasive species and stormwater
Rain Gardens and Rain Barrels	4/26/2022	6:30-7:30pm	1	Kaleigh	Madison Heights	Madison Heights Public Library	3	RR	General presentation on rain gardens and rain barrels
Watershed presentation	5/11/2022	9:20-12:30	3	Kaleigh	Center Line	Center Line High School	60	RR	High school level presentation on water quality, natural resources careers, and intro to our watershed
Rain Gardens and Rain Barrels	5/16/2022	6:00-7:00	1	Chris	Pontiac	Goldner Walsh Nursery, Pontiac	16	CM	General presentation on rain gardens and rain barrels
Rain Gardens and Rain Barrels	6/28/2022	6:00-7:15pm	1	Kaleigh	Warren	Warren Civic Center Library	9	RR	General presentation on rain gardens and rain barrels
Kids Watershed Steam Event	7/7/2022	2:00-3:00pm	1	Kaleigh	St. Clair Shores	St. Clair Shores Public Library	17	CC	Watershed model presentation on non-point source pollution
River Critters	7/9/2022	2:00-3:00pm	1	Kaleigh	Fraser	Fraser Public Library	11	CREW	Presentation on water quality and connections to wildlife
Native Plants	8/11/2022	6:30pm-7:30pm	1	Pronoye	Ferndale	Walking Lightly	4	RR	Presentation on native plants and their benefits to water quality, pollinators, etc
Rain Gardens and Rain Barrels	9/6/2022	6:00-7:00pm	1	Kaleigh	Ray Township	Virtual, Ray Township Public Library	2	NB	General presentation on rain gardens and rain barrels
Rain Gardens and Rain Barrels	9/21/2022	7:00-9:00pm	1	Kaleigh	Bloomfield Twp	E L Johnson Nature Center	9	UC	General presentation on rain gardens and rain barrels

Rain Gardens	9/23/2022	10:00-11:00am	1	Kaleigh	Rochester	Meadow Brook Hall, 350 Estate Dr, Rochester,	40	CM	General presentation on rain gardens
Seed Collection Training	10/13/2022	5:30-7:30pm	1	Kaleigh	Rochester Hills	1115 W. Avon Rd., Rochester Hills	8	CM	Presentation on proper seed collection and native plant benefits to water quality
Seed Collection	10/15/2022	10:00-12:00pm	1	Kaleigh	Rochester Hills	1115 W. Avon Rd., Rochester Hills	10	CM	Workshop collecting native seed, more information on benefits to water quality
DIY landscaping and Lawn care for water quality	10/17/2022	12:30-1:30pm	1	Kaleigh	Oxford	Seymour Lake Park 2795 Seymour Lake Road, Oxford	13	SP	Rain gardens, rain barrels, and general landscaping for water quality
Watershed presentation	11/10/2022	11:00-2:50	5	Pronoye	Roseville	Eastland Middle School	100	CC	Middle School level introduction to our watershed and stormwater threats
Protecting Water Quality in Winter	2/8/2023	5:00-6:00pm	1	Kaleigh	Shelby Township	Shadbush Nature Center	4	CREW	Stormwater basics and info on salt use in the watershed
Watershed basics	2/15/2023	12:00-2:45pm	3	Kaleigh	Warren	Green Acres Elementary School	70	RR	Elementary level presentation on watershed basics
Rain Gardens	3/14/2023	6:30-7:30pm	1	Chris	Ferndale	Walking Lightly refillery shop	8	RR	Rain gardens, and general landscaping for water quality
		Total	28				446		

Event Title	Date	Time	# of presentations	Presenter	MS4 permittee	Location	Total Attendance	Subwatershed	Description
Native plants & water quality	4/6/2023	2:00pm-4:00pm	2	Kaleigh & Pronoye	St. Clair Shores	St. Clair Shores Public Library	38	CC	Seedball making workshop for all ages
Salmon and the Clinton River Watershed	4/28/2023	9:00am-2:30pm	5	Kaleigh	Troy	Larson Middle School	120	RR	Talking through Salmon life stages, history of invasive species, and stormwater 101
Your Home. Your Community. Your Watershed	9/13/2023	6:00-8:00pm	1	Kaleigh	Shelby Township	Shelby Township Public Library	4	CREW	Stormwater 101 with local context
Seed collection training workshop	10/19/2023	5-6pm	1	Kaleigh	Rochester Hills	CRWC Office	5	CM	Presentation on the importance of native plants to water quality and how to sustainably harvest seed
Enviroscape demonstration	10/24/2023	9-11am	2	Kaleigh	Sterling Heights	Messmore Elementary	80	RR	Watershed model demonstration going through different types of stormwater pollution
A Whale of a Problem	10/25/2023	6-8pm	1	Kaleigh	Ray Township	Ray Township Public Library	20	NB	Presentation on how microplastics enter waterways, and the negative impacts of microplastics on aquatic life
Seed collection workshop	10/28/2023	9-12pm	1	Kaleigh	Rochester Hills	CRWC Office	6	CM	Collecting native seed from the prairie at 1115 W Avon
Invasive Species Presentation	10/28/2023	4pm-5pm	1	Pronoye	Shelby Township	Burgess-Shadbush Nature Center	0	CREW	Presented on the various invasive species present in our watershed and went out to the trail to show a before and after of an invasive species removal
Watershed 101	11/21/2023	8-9am	1	Kaleigh	St. Clair Shores	Masonic Heights Elementary school	180	CC	Presented to all 4th and 5th graders, covering the basics of the water cycle, stormwater runoff, and action items for kids
Watershed 101	1/11/2024		1	Kaleigh	Sterling Heights	Carleton Middle School	60	RR	Presentation for 6th graders on how we interact with freshwater, tips on how to prevent stormwater pollution as students
Getting to Know Your Watersheds	1/23/2024	7-8:30pm	1	Kaleigh	Oxford Township	Oxford Public Library	8	SP	Watershed history and general overview, followed by tips on how to protect freshwaters
Your Home. Your Community. Your Watershed	1/29/2024	5:30-6:30pm	1	Pronoye	Pontiac	Pontiac Public Library	0	CM	Stormwater 101 with local context
Protecting Water Quality in Winter	1/31/2024	6:30-7:30pm	1	Kaleigh	Warren	Warren Library Busch branch	0	RR	Technical dive into effects of chloride on water, with stormwater pollution prevention tips

The Water in Your Backyard	2/6/2024	7:20-1:00pm	6	Kaleigh	Utica	Eppler Junior High School	120	CREW	Local conservation efforts and career connection
Overview of the Clinton River Watershed	2/6/2024	8:50am-9:30am	1	Pronoye	Chesterfield Township	Austin Catholic High School	30	NB	Local conservation efforts and career connection
The Water in Your Backyard	2/8/2024	1:00-2:00pm	1	Kaleigh	Utica	Eppler Junior High School	20	CREW	Local conservation efforts and career connection
Watershed 101	2/12/2024	5:30-6:30pm	1	Pronoye	Macomb Township	Clinton Macomb Public Library North branch	1	NB	Stormwater 101 with added freshwater information
Protecting Water Quality in Winter	2/13/2024	6:00-7:00pm	1	Kaleigh	Chesterfield Township	Chesterfield Township Public Library	3	CC	Technical dive into effects of chloride on water, with stormwater pollution prevention tips
Protecting Water Quality in Winter	2/15/2024	5:30-6:30pm	1	Kaleigh	Orion Township	Orion Township Public Library	0	SP	Technical dive into effects of chloride on water, with stormwater pollution prevention tips
Watershed 101	2/20/2024	5:15-6:15pm	1	Pronoye	Mount Clemens	Mount Clemens Public Library	3	CREW	Stormwater 101 with added freshwater information
Rain Gardens & Rain Barrels	2/28/2024	7-8pm	1	Kaleigh	Clarkston, Independence Township	Clarkston-Independence District Library	5	UC	Information on how to manage stormwater on a residential property through GSI
Watershed 101	3/7/2024	7-8pm	1	Kaleigh	Troy	Troy Public Library	14	RR	Stormwater 101 with added freshwater information
		Total	33				717		



**IMPROVING WATER
QUALITY CAN BEGIN
IN YOUR OWN BACKYARD**

////////////////////////////////////
JOIN US FOR A FREE PRESENTATION!



**April 19, 2022
7:00pm - 8:30pm**
500 Olde Towne Rd
Rochester, MI 48307

Learn how stormwater impacts our local waterways and wildlife and its role in residential flooding.

Simple, affordable nature based solutions can improve water quality and decrease runoff which is the biggest threat to water pollution in the Clinton River and Lake St. Clair.

**SCAN TO
REGISTER**
OR VISIT
Register at
Rochester Hills
Public Library
rhpl.org





CLINTON RIVER WATERSHED COUNCIL

CRWC

RAIN GARDENS & RAIN BARRELS

JOIN US FOR A FREE PRESENTATION!



April 26, 2022
6:30pm - 7:30pm

Madison Heights
Public Library
240 W 13 Mile Rd.
Madison Heights, MI 48071

A type of green infrastructure (GI), rain gardens and rain barrels are used to capture and manage stormwater runoff on your property.

Join us for a free presentation and learn how to install and maintain these GI tools at home to mitigate flooding and utilize runoff to your benefit.



To Register:
Visit CRWC.org or
scan the code





Protecting Water Quality in Cold Weather

JOIN US FOR A FREE PRESENTATION!



February 8, 2023

5:00pm-6:00pm

Burgess-Shadbush Nature Center
4101 River Bends Rd, Shelby Twp

Interested in learning how salt and other cold weather practices affect the health of the Clinton River?

Join us to learn steps you can take at home during winter to protect our freshwaters and meet an animal ambassador directly impacted by water quality!

**To register for this FREE training:
Email contact@crwc.org, or call 248-601-0606**





Protecting Water Quality in Cold Weather

////////////////////////////////////
JOIN US FOR A FREE PRESENTATION!



March 4, 2023
11:00am-12:00pm
Clarkston Independence District Library
6495 Clarkston Rd, Clarkston

Interested in learning how salt and other cold weather practices affect the health of the Clinton River?

Join CRWC and the Clarkston Independence Library for this science driven presentation to learn more about what influences our water quality, as well as simple steps you can take at home to protect our lakes, rivers, and streams.

To register for this FREE training:
Visit bit.ly/3GonWrb or call 248-625-2212



STORMWATER PRESENTATION:

GET TO KNOW YOUR WATERSHEDS

JANUARY 23, 2024 • 7:00 P.M. - 8:30 P.M.

Join CRWC at Oxford Public Library for an introduction to the Clinton River watershed. We'll explore the region's geological history, land use changes through time, and what the watershed looks like today. You'll learn about what work is being done now, the biggest threats to water quality, and more.



This educational presentation is free and open to the public - no experience required!



**OXFORD PUBLIC LIBRARY
ATRIUM**

530 Pontiac St.
Oxford, MI 48371



REGISTER NOW

LET US KNOW YOU'RE PLANNING TO ATTEND AT **CRWC.ORG/EVENTS** OR BY SCANNING THE QR CODE.



CLINTON RIVER WATERSHED COUNCIL

1115 W Avon Road,
Rochester Hills, MI 48309
(248) 601-0606 crwc.org
cole@crwc.org
Clinton River Watershed Council
[@clintonriverwatershed](https://www.instagram.com/clintonriverwatershed)

STORMWATER PRESENTATION:

YOUR HOME. YOUR COMMUNITY. YOUR WATERSHED.

JANUARY 29, 2024 • 5:30 P.M. - 6:30 P.M.

Did you know that wherever you are - work, home, school, or the park - you are always in a watershed? Learn the watershed story of the Clinton River, how watershed residents are connected to these resources, and how you can be part of the network that protects, enhances, and celebrates this precious resource.



This educational presentation is free and open to the public - no experience required!



**PONTIAC PUBLIC LIBRARY
AUDITORIUM**

60 E. Pike St.
Pontiac MI 48342

REGISTER NOW
LET US KNOW YOU'RE PLANNING TO ATTEND AT **CRWC.ORG/EVENTS** OR BY SCANNING THE **QR CODE**.



📍 1115 W Avon Road,
Rochester Hills, MI 48309
☎ (248) 601-0606 🌐 crwc.org
✉ cole@crwc.org
f Clinton River Watershed Council
📷 @clintonriverwatershed

STORMWATER PRESENTATION:

PROTECTING WATER QUALITY IN WINTER

JANUARY 31, 2024 • 6:30 P.M. - 7:30 P.M.

Homeowners have a responsibility to protect water quality year-round. Join us for this science driven presentation where you will learn what impacts water quality in winter, and simple steps you can take at home during cold months to protect water quality.



This educational presentation is free and open to the public - no experience required!



**BUSCH LIBRARY
COMMUNITY ROOM**

23333 Ryan
Warren, MI 48091



REGISTER NOW

LET US KNOW YOU'RE PLANNING TO ATTEND AT **CRWC.ORG/EVENTS** OR BY SCANNING THE **QR CODE**.



CLINTON RIVER WATERSHED COUNCIL

1115 W Avon Road,
Rochester Hills, MI 48309
(248) 601-0606 crwc.org
contact@crwc.org
Clinton River Watershed Council
[@clintonriverwatershed](https://www.instagram.com/clintonriverwatershed)

STORMWATER PRESENTATION:

WATERSHED 101

FEBRUARY 12, 2024 • 5:30 P.M. - 6:30 P.M.

Did you know that wherever you are - work, home, school, or the park - you are always in a watershed? Learn the watershed story of the Clinton River, how watershed residents are connected to this resources, and how you can be part of the network that protects, enhances, and celebrates this precious resource.



This educational presentation is free and open to the public - no experience required!



**CLINTON-MACOMB PUBLIC
LIBRARY NORTH BRANCH -
MEETING ROOM**

54100 Broughton Rd
Macomb, MI 48042



REGISTER NOW

LET US KNOW YOU'RE PLANNING TO ATTEND AT
CRWC.ORG/EVENTS OR BY SCANNING THE **QR**
CODE.



CLINTON RIVER WATERSHED COUNCIL

1115 W Avon Road,
Rochester Hills, MI 48309
(248) 601-0606 crwc.org
cole@crwc.org
Clinton River Watershed Council
[@clintonriverwatershed](https://www.instagram.com/clintonriverwatershed)

STORMWATER PRESENTATION:

PROTECTING WATER QUALITY IN WINTER

FEBRUARY 13, 2024 • 6:00 P.M. - 7:00 P.M.

Homeowners have a responsibility to protect water quality year-round. Join us for this science driven presentation where you will learn what impacts water quality in winter, and simple steps you can take at home during cold months to protect water quality.



This educational presentation is free and open to the public - no experience required!



**CHESTERFIELD PUBLIC
LIBRARY - MEETING ROOM**

50560 Patricia Avenue
Chesterfield, MI 48051



REGISTER NOW

LET US KNOW YOU'RE PLANNING TO ATTEND AT
CRWC.ORG/EVENTS OR BY SCANNING THE **QR**
CODE.



CLINTON RIVER WATERSHED COUNCIL

1115 W Avon Road,
Rochester Hills, MI 48309
(248) 601-0606 crwc.org
cole@crwc.org
Clinton River Watershed Council
[@clintonriverwatershed](https://www.instagram.com/clintonriverwatershed)

STORMWATER PRESENTATION:

PROTECTING WATER QUALITY IN WINTER

FEBRUARY 15, 2024 • 5:30 P.M. - 6:30 P.M.

Homeowners have a responsibility to protect water quality year-round. Join us for this science driven presentation where you will learn what impacts water quality in winter, and simple steps you can take at home during cold months to protect water quality.




This educational presentation is free and open to the public - no experience required!



ORION TOWNSHIP PUBLIC LIBRARY - LINDA SICKLES MEETING ROOM A

825 Joslyn Rd.
Lake Orion, MI 48362

 **REGISTER NOW**
LET US KNOW YOU'RE PLANNING TO ATTEND AT [CRWC.ORG/EVENTS](https://www.crw.org/events) OR BY SCANNING THE QR CODE.



 1115 W Avon Road,
Rochester Hills, MI 48309
 (248) 601-0606  [crwc.org](https://www.crw.org)
 cole@crwc.org
 Clinton River Watershed Council
 @clintonriverwatershed

STORMWATER PRESENTATION:

WATERSHED 101

FEBRUARY 20, 2024 • 5:15 P.M. - 6:15 P.M.

Did you know that wherever you are - work, home, school, or the park - you are always in a watershed? Learn the watershed story of the Clinton River, how watershed residents are connected to this resources, and how you can be part of the network that protects, enhances, and celebrates this precious resource.



This educational presentation is free and open to the public - no experience required!



MT. CLEMENS LIBRARY

150 Cass Ave
Mt Clemens, MI 48043



REGISTER NOW

LET US KNOW YOU'RE PLANNING TO ATTEND AT **CRWC.ORG/EVENTS** OR BY SCANNING THE **QR CODE**.



CLINTON RIVER WATERSHED COUNCIL

1115 W Avon Road,
Rochester Hills, MI 48309
(248) 601-0606 crwc.org
cole@crwc.org
Clinton River Watershed Council
[@clintonriverwatershed](https://www.instagram.com/clintonriverwatershed)

STORMWATER PRESENTATION:

RAIN GARDENS & RAIN BARRELS

FEBRUARY 28, 2024 • 7:00 P.M. - 8:00 P.M.

A type of green infrastructure rain gardens and rain barrels are used to capture and manage stormwater runoff on your property. Join us for this presentation and learn how to install and maintain these tools at home to mitigate flooding and utilize runoff to your benefit.



This educational presentation is free and open to the public - no experience required!



**CLARKSTON-INDEPENDENCE
DISTRICT LIBRARY**

6495 Clarkston Road
Clarkston, Michigan 48346



REGISTER NOW

LET US KNOW YOU'RE PLANNING TO ATTEND AT
CRWC.ORG/EVENTS OR BY SCANNING THE **QR**
CODE.



CLINTON RIVER WATERSHED COUNCIL

1115 W Avon Road,
Rochester Hills, MI 48309
(248) 601-0606 crwc.org
cole@crwc.org
Clinton River Watershed Council
[@clintonriverwatershed](https://www.instagram.com/clintonriverwatershed)

STORMWATER PRESENTATION:

WATERSHED 101

MARCH 7, 2024 • 7:00 P.M. - 8:00 P.M.

Did you know that wherever you are - work, home, school, or the park - you are always in a watershed? Learn the watershed story of the Clinton River, how watershed residents are connected to this resource, and how you can be part of the network that protects, enhances, and celebrates this precious resource.



This educational presentation is free and open to the public - no experience required!



**TROY PUBLIC LIBRARY
MEETING ROOM**

510 West Big Beaver Rd.
Troy, MI 48084



REGISTER NOW

LET US KNOW YOU'RE PLANNING TO ATTEND AT **CRWC.ORG/EVENTS** OR BY SCANNING THE QR CODE.



CLINTON RIVER WATERSHED COUNCIL

1115 W Avon Road,
Rochester Hills, MI 48309
(248) 601-0606 crwc.org
cole@crwc.org
Clinton River Watershed Council
[@clintonriverwatershed](https://www.instagram.com/clintonriverwatershed)

No.	First Name	Last Name	Ticket Type	Ticket Status	Contact Name	Contact Email	Contact Phone
1	Anna	Bakos	Register	Registered	Anna Bakos	dana29cam@yahoo.com	(248) 550-4592
2	Stephanie	Bauer	Register	Registered	Stephanie Bauer	toddandsteph2007@gmail.com	(248) 770-9024
3	MARVIN	BROHL	Register	Registered	MARVIN BROHL	marvinbrohl@gmail.com	(248) 651-8357
4	Diane	Brohl	Register	Registered	MARVIN BROHL	marvinbrohl@gmail.com	(248) 651-8357
5	Jennifer	Evanson	Register	Registered	Jennifer Evanson	jenevanson@gmail.com	(248) 619-5146
6	Tracy	Mancour	Register	Registered	Tracy Mancour	ilovetrolleys@sbcglobal.net	(248) 651-5102
7	Linda	Neale	Register	Registered	MICHAEL ROTA	chandos_9@yahoo.com	(248) 891-0559
8	MICHAEL	ROTA	Register	Registered	MICHAEL ROTA	chandos_9@yahoo.com	(248) 891-0559
9	Bradley	Roth	Register	Registered	Bradley Roth	roth@oakland.edu	(248) 375-2703
10	Shirley	Roth	Register	Registered	Bradley Roth	roth@oakland.edu	(248) 375-2703
11	Leticia	Saucedo-villarreal	Register	Registered	Leticia Saucedo-villarreal	sucedoleticia27@gmail.com	(248) 839-1211
12	Linda	Schwartz	Register	Registered	Linda Schwartz	lsindaschwartz565@gmail.com	(248) 515-2505
13	Michelle	Susko	Register	Registered	Michelle Susko	mksusko@gmail.com	(248) 990-5594
14	Cymbria	Thompson	Register	Registered	Cymbria Thompson	ct784632@gmail.com	(248) 495-2334
15	Robert	Winkel	Register	Registered	Robert Winkel	bobwinkel@aol.com	(248) 601-1638
16	Lavon	Zimmerman	Register	Registered	Lavon Zimmerman	lava.zimm36@gmail.com	(248) 561-3925
17	Christie	Zynda	Register	Registered	Christie Zynda	cdzynda@ameritech.net	(248) 656-0770
18	Gene	Zynda	Register	Registered	Christie Zynda	cdzynda@ameritech.net	(248) 656-0770



Earth Day Service Project Sign-In

Friday, April 21, 2022

As a participation of this program I agree to release, indemnify, defend, and hold harmless the City of Auburn Hills, including all elected and appointed officials, all employees, representatives, and volunteers, all boards, commissions, and/or authorities, including but not limited to the Tax Increment Finance Authority, Brownfield Redevelopment Authority and the Downtown Development Authority, and their officers, employees representatives and volunteers from any injuries, liability, damages, expenses, attorney's fees, causes of action, suits, claims or judgments, costs, incurred and/or arising from the Contractor's performing its work, jobs, duties and/or any other actions and/or omissions of the Contractor and/or its employees, representatives and/or agents pertaining to and/or in connection with the Activity.

Parent Name (Please Print)	Signature	Children's Names (Please Print)
1 Michelle Elder		
2 Chris SPANOLA		
3 Julie Piccirilli		
4 Connie Ankerlie		
5 Neekanton Paramore		
6 CHRIS SULLIVAN		
7 Allison Zombo		
8 Nichole Masseurant		
9 NICOLE KUDRUP		
10 Angela Cook		
11 Kathleen Erb		
12 Mu Yan		
13 Bob Ripberger		
14 Amshenath KISHYAP		
15 Max Masfin		
16 Avel Aaron		Leo & Rose
17 Alisson Deibel		Levi
18 Aaren Wolfen		
19 MARIAM TINJAW		-
20		



Earth Day Service Project Sign-In

Friday, April 21, 2022

As a participation of this program I agree to release, indemnify, defend, and hold harmless the City of Auburn Hills, including all elected and appointed officials, all employees, representatives, and volunteers, all boards, commissions, and/or authorities, including but not limited to the Tax Increment Finance Authority, Brownfield Redevelopment Authority and the Downtown Development Authority, and their officers, employees representatives and volunteers from any injuries, liability, damages, expenses, attorney's fees, causes of action, suits, claims or judgments, costs, incurred and/or arising from the Contractor's performing its work, jobs, duties and/or any other actions and/or omissions of the Contractor and/or its employees, representatives and/or agents pertaining to and/or in connection with the Activity.

Parent Name (Please Print)	Signature	Children's Names (Please Print)
1 Matt Vogel	<i>M. Vogel</i>	
2 Marie Galindo	<i>M. Galindo</i>	
3 Sara Betker	<i>Sara Betker</i>	
4 Lance Stroyer	<i>Lance Stroyer</i>	
5 Michael Qin	<i>Michael Qin</i>	
6 Allen Neal	<i>Allen Neal</i>	
7 Tyler Roberts	<i>Tyler Roberts</i>	
8 MIKE BEREZNY	<i>Mike Berezny</i>	
9 Derck Sulpizio	<i>Derck Sulpizio</i>	
10 Steve Kusiel	<i>Steve Kusiel</i>	
11 Dominika Lypk	<i>Dominika Lypk</i>	
12 CHRISTINE CARVALLO	<i>Christine Carvallo</i>	
13 Travis McKernan	<i>Travis McKernan</i>	
14 Erik Tack	<i>Erik Tack</i>	
15 PETE MIKULA	<i>Pete Mikula</i>	
16 Johannekrickson	<i>Johannekrickson</i>	
17 Yi Liu	<i>Yi Liu</i>	
18 Rich Phillips	<i>Rich Phillips</i>	
19 Ping Zhu	<i>Ping Zhu</i>	
20 Sarah Ramosh	<i>Sarah Ramosh</i>	

RAIN GARDENS

First Name	Last Name	Contact Name	Contact Email	Contact Phone
1 Suzanne	Rutkowski	Suzanne Rutkowski	lynxmsia@gmail.com	(248) 877-6066
1 DENNIS	SHULL	DENNIS SHULL	dennis.a.shull@gmail.com	(586) 202-2129
1 Joan	Stress	Joan Stress		(586) 751-6288
1 GERIANNE	ROLAND	GERIANNE ROLAND	micotn2@gmail.com	(586) 393-1310
1 diane	radue	diane radue		(586) 772-7682
1 Regina	Kelly	Regina Kelly	trilgogyark@yahoo.com	(586) 756-6111
1 SYLVIA	NITSCH	SYLVIA NITSCH	sylvianitsch134@gmail.com	(586) 268-1565
1 NANCY	YANG	NANCY YANG		(586) 859-8672
1 Jan	Warmuskerken	Jan Warmuskerken	jwarmuskerken@wowway.com	(586) 296-2908
2 George	Warmuskerken	Jan Warmuskerken	jwarmuskerken@wowway.com	(586) 296-2908
1 Suzanne	Weathers	Suzanne Weathers	suzanneweathers@wowway.com	(586) 350-0360

6/28/22 Warren Civic Center library

EVENT: Native Planting Pres.		LOCATION: Walking Lightly in Ferndale		Send Me Information About: (please check all those that apply)		
DATE: 8/11/22		PRESENTER: Pronoye		Future Presentations	Membership	Volunteer Opportunities
Name	Address/City/State	Zip Code	Email Address	X	X	X
Low Winkles	(2030 Leitch RD)	48220	winkles.hope@gmail.com	X		
Zoe Mueller	Ferndale Mi		Zmueller20245@gmail.com	X		
Emily Lyons	Royal Oak	48067	emilyalyons@yahoo.com			
Helixis Ferrier	Royal Oak	48067	alferrier2@gmail.com	X		X

EVENT: Your Home, Your Community, Your Watershed		LOCATION: Shelby Twp Library		Send Me Information About: (please check all those that apply)		
DATE: 9/13/23		PRESENTER: Kaley Sully		Future Presentations	Membership	Volunteer Opportunities
Name	Address/City/State	Zip Code	Email Address	X	X	X
Jen Kosmas	8449 Sathyfield Dr.	48314	optional! jen.kosmas@gmail.com	✓		✓
Sue Zaccardelli	13908 Woodsett Ct	48315	blueiris55@comcast.net	✓		? maybe
JIM SCHARAM	2212 Elm Circle	48316	JIM.SCHARAM@SBCGLOBAL.NET	✓		✓
Ann Rudder	2212 Elm Ci.	48316	eannrudder@sbcglobal.net	✓		
Elizabeth Champion	4445 Morningview	48316	Campiee42@gmail.com	✓	✓	✓

at Michigan State University
Kellogg Hotel & Conference Center
kellloggcenter.com (517) 432-4000

WILD ONES

NORTH OAKLAND CHAPTER
September 21, 2022 Program Meeting
Kaleigh Snoddy - Rain Gardens

NAME

EMAIL

1. GIBLIN

2. BICKLE

3. OHLDE

4. Erin Watson

friendsofjnc@gmail.com

5. Renée Zimmerman

you have

6. Fran Tatavelli

7. ~~Julie Maloney~~

7. Denise Reirell

8. V. Maloney

9.

10.

11.

12.

13.

14.

15.

EVENT: Seed Collection Workshop		LOCATION: CRWC Office		Send Me Information About: (please check all those that apply)		
DATE: 10/19/23		PRESENTER: Kaleigh Snoddy		Future Presentations	Membership	Volunteer Opportunities
First Name	Last Name	Zip Code (optional)	Email Address (optional)	X	X	X
Ashley	Koehler	48035	akoehler2012@gmail.com			
Tom	West	48309	westtom5181@gmail.com	X	X	X
Angel	Bakos	48309	dana29cam@yahoo.com	X	X	X
* Sue	Hhr	4830	denimlady85@yahoo.com			
* Amanda	McMahon	48309	amandapaniccia@yahoo.com	X	X	X

TOTAL ATTENDANCE:
5 attendees

EVENT: Seed Collection 2023		LOCATION: CRWC Office		Send Me Information About: (please check all those that apply)		
DATE: 10/28/23		PRESENTER: Kalef		Future Presentations	Membership	Volunteer Opportunities
First Name	Last Name	Zip Code	Email Address	X	X	X
Angel	Bakos	48309	dana29Cam@yahoo.com	X	X	X
Ashley Koehler		48035	akoehler2012@gmail.com			
Jim	McMahon	48309	mcmah037@gmail.com	X	X	X
Amanda + 2 kids	McMahon	48309	amanda.paniccia@yahoo.com	X	X	X

TOTAL ATTENDANCE: 4 (6 including kids)

EVENT: Get to Know your Watershed!		LOCATION: Oxford Public Library		Send Me Information About: (please check all those that apply)		
DATE: 1/23/24		PRESENTER: Kaleigh Snoddy, CRWC		Future Presentations	Membership	Volunteer Opportunities
First Name	Last Name	Zip Code	Email Address <small>optional!</small>	X	X	X
Michelle	Whitt	48371	tmwhitt@att.net	X	X	X
Terry	Whitt	48371	"			
Peggy	McCatty	48371				
@Nancy	Bregman	48371				
Bruce	NARA	48371	nara0071@gmail.com			
Tracy	NARA	48371	" "	X	X	X
Jennifer	Byrnes	48362	jeffjenn299@gmail			
Bryan	Cloutier	48446				

TOTAL ATTENDANCE: 8

Keep Current with Clinton River Watershed Council - Sign up for our newsletter!

Send Me Information About:
(please check all those that apply)

Event: Watershed 101

Date: 2/12/24

Future Events

Membership

Volunteer Opportunities

Name

Address/City/State (optional)

Zip Code (optional)

Email Address

X

X

X

Kay Collins

kecollins24@comcast.net

What is your full name?		What is your email address?	What is your phone number?	
First name	Last name	Email address	Phone number	Feb 20, 2024 // 5:15 PM - 6:15 PM // Watershed 101 // Mt. Clemens Library
Larry	Kondek	lrkonqeng@gmail.com	+1 586 255 4557	Feb 20, 2024 // 5:15 PM - 6:15 PM // Watershed 101 // Mt. Clemens Library
Darlene	Daniels	drln_daniels@yahoo.com		Feb 20, 2024 // 5:15 PM - 6:15 PM // Watershed 101 // Mt. Clemens Library
Sara	Grix	smgrix@gmail.com	+1 586 321 2482	Feb 20, 2024 // 5:15 PM - 6:15 PM // Watershed 101 // Mt. Clemens Library

EVENT: <i>Rain Gardens & Barrels</i>		LOCATION: <i>Clarkston Independence Library</i>		Send Me Information About: (please check all those that apply)		
DATE: <i>2/28/24</i>		PRESENTER: <i>Katey Swislocky</i>		Future Presentations	Membership	Volunteer Opportunities
Name	Address/City/State (optional)	Zip Code	Email Address	X	X	X
<i>Ellen Campbell</i>	<i>Clinton 21079 Dunham, Twp</i>	<i>48038</i>	<i>(slides, please) ekcampbell82@yahoo.com</i>	<i>X</i>		
<i>DON ELVY</i>	<i>4790 FOX CHASE DR. WHITE LAKE</i>	<i>48383</i>	<i>delvy4790@COMCAST.NET</i>	<i>✓</i>		
<i>Danielle Stickney</i>		<i>48348</i>				
<i>Madison Jonas</i>		<i>48507</i>				
<i>Alex McGuire</i>		<i>48507</i>				

3/7/24
Troy
Public
Library

Reg. #	First Name	Last Name	State	Attending Online
1	Jon	Ede	Complete	No
2	Nancy	Ede	Complete	No
3	Michael	Palchesko	Complete	No
4	Michael	Palchesko	Complete	No
5	Robin	Siegel	Complete	No
6	Indu Kumar	Kumar	Complete	No
7	Kellen Scott	Michael	Complete	No
8	Margaret	Bach	Complete	No
9	Bill	Guisinger	Complete	No
10	Giovanni	Asmar	Complete	No
11	Alice	Kolesar	Complete	No
12	Dan	Kolesar	Complete	No
13	Ellen	Campbell	Complete	No
14	Julia	Hrynkiw	Complete	No
15	Allen	Salyer	Complete	No
16	Gregory	O'Neill	Complete	No
17	william	brabant	Complete	No
18	Patricia	DODGE	Complete	No

Total Headcount
14