THE ALLIANCE OF DOWNRIVER WATERSHEDS ORGANIZATION

The Alliance of Downriver Watersheds (ADW) is a permanent watershed organization in southeast Michigan and formed under Public Act 517 of the Public Laws of 2004. The ADW formally established themselves in 2007 but have been working together for many years to manage the area's water resources. The ADW consists of 22 public agencies in the Ecorse Creek, Combined Downriver and Lower Huron River Watersheds within Wayne County. Some of the benefits of ADW membership are summarized in this packet.

The consortium of agencies that make up the ADW work together to cooperatively manage the rivers, lakes and streams within the watershed. Examples of ADW efforts include long-term water quality monitoring, stormwater permit compliance and reporting to the State, submittal of grant applications for water quality improvements, and public education on items such as rain barrel use, no phosphorus fertilizer, and proper pet waste management.

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

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

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

Current Membership

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

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

The full ADW membership meets 3-4 times per year. In addition, the ADW has three standing committees that meet on a regular basis to address issues important to the ADW members including an Executive Committee, Technical Committee and Public Involvement and Education Committee. The Executive Committee focuses on membership, and the financial and legal aspects of the organization. The Technical Committee focuses on the monitoring program, illicit discharge elimination strategies, grant opportunities, and permit requirements. The Public Education Committee deals with any tasks related to public education, including public surveys and grant opportunities. The Technical and Public

Education Committees often meet jointly. Wayne County has served the group as its fiduciary since formed in 2007. The ADW also elects a Chair, Vice-Chair, and Treasurer from among its members. What do the Chair, Vice-Chair, and Treasurer do?

The Chair:

- sets the vision for the ADW
- reviews meeting agendas
- approves expenditure requests recommended by the Treasurer and/or the Fiduciary
- presides over meetings of the ADW and Executive Committee
- executes agreements and other documents on behalf of and as approved by the ADW
- appoints Committee chairs
- serves in the absence of the Treasurer

The Vice Chair:

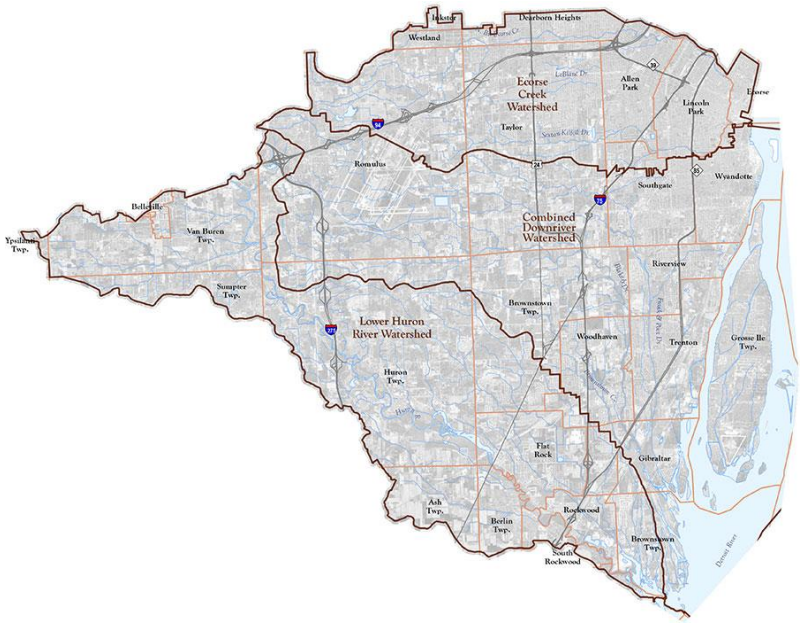
- reviews meeting agendas
- serves in the absence of the Chair
- assists the Chair, as requested, with the general operation of the ADW

The Treasurer:

- oversees and approves (along with the Chair) expenditures
- coordinates all financial matters with the Fiduciary
- responsible for all financial operations of the ADW including review of the annual budget

ABOUT THE WATERSHED

The ADW is relatively urban in nature consisting of 203.3 square miles and more than 450,000 people (2010 census). Major watercourses within the ADW that drain to the Detroit River and Lake Erie include the Ecorse Creek, Sexton Kilfoil Drain, Frank and Poet Drain, Blakely Drain, Brownstown Creek, Huron River, Silver Creek and Woods Creek.



The challenges in these watersheds are typical of urban watersheds. Stream flows are much more erratic than State average; nutrient

runoff is high; pathogen levels are high in Ecorse and Combined Downriver creeks; and conductivity levels (a general measure of chemical pollution) are high.

Long-term monitoring efforts have indicated some improvements due to the efforts within the watershed:

- **Good Oxygen Levels**. The vast majority of time, dissolved oxygen in ADW sites is above the State standard for aquatic life. However, several sites have experienced occasional low levels, and Brownstown Creek averages below the standard.
- **Mixed Pathogen Levels**. Pathogen concentrations are typically measured to be well above the State standard at most ADW sites. However, sites in the Lower Huron in Woods and Smith Creeks and the Huron River average below this standard.
- **Better Bugs**. Aquatic insect diversity has improved slightly, with more insect types and more sensitive-types being discovered. This is especially true at Ecorse and Combined Downriver sites in the spring, with site ratings moving from "poor" to "fair." Lower Huron sites have remained in the "good" rating range.
- **Lower Erosion**. Stream banks across the ADW watersheds show evidence of past erosion due to erratic stream flows. Currently, erosion events (measured by Total Suspended Solids above 80 mg/L) are quite rare. Lower erosion may have led to more stable aquatic habitat.

ADW EFFORTS

The main purpose of the ADW is to meet the Phase II MS4 Permit Requirements, address the Total Maximum Daily Loads (TMDLs) and improve the overall water quality in the watershed.

MS4 PERMIT COMPLIANCE

Polluted stormwater runoff is commonly transported through municipal separate storm sewer systems (MS4s), and then often discharged, untreated, into local water bodies.

An MS4 is a conveyance or system of conveyances that is:

- owned by a state, city, town, village, or other public entity that discharges to waters of the U.S.,
- designed or used to collect or convey stormwater (e.g., storm drains, pipes, ditches),
- not a combined sewer, and
- not part of a sewage treatment plant, or publicly owned treatment works (POTW).

The 1999 Phase II regulation requires small MS4s in U.S. Census Bureau defined urbanized areas, as well as MS4s designated by the permitting authority, to obtain NPDES permit coverage for their stormwater discharges. Phase II also includes non-traditional MS4s such as public universities, departments of transportation, hospitals and prisons. During wet weather, pollutants are transported through MS4s to local water bodies. The goal of the MS4 program is to reduce the discharge of pollutants to surface waters of the State.

The main components of the Phase II MS4 Permit are:

- ***Public Participation and Involvement*** - Providing opportunities for citizens to participate in program development and implementation, including effectively publicizing public hearings.
- ***Public Education Program (PEP)*** - Distributing educational materials and performing outreach to inform citizens about the impacts polluted stormwater runoff discharges can have on water quality.
- ***Illicit Discharge Detection and Elimination Program (IDEP)*** - Developing and implementing a plan to detect and eliminate illicit discharges to the storm sewer system (includes developing a system map and informing the community about hazards associated with illegal discharges and improper disposal of waste).
- ***Construction Site Runoff Control*** - implementing, and enforcing an erosion and sediment control program for construction activities that disturb 1 or more acres of land (controls could include silt fences and temporary stormwater detention ponds).
- ***Post-Construction Runoff Control*** - Developing, implementing, and enforcing a program to address discharges of post-construction stormwater runoff from new development and redevelopment areas. Applicable controls could include preventative actions such as protecting sensitive areas (e.g., wetlands) or the use of structural BMPs such as grassed swales or porous pavement.
- ***Pollution Prevention/Good Housekeeping (P2/GH)*** - Developing and implementing a program with the goal of preventing or reducing pollutant runoff from municipal operations. The program must include municipal staff training on pollution prevention measures and techniques (e.g., regular street sweeping, reduction in the use of pesticides or street salt, or frequent catch-basin cleaning).

TMDL ELIMINATION

The Impaired Waters and Total Maximum Daily Load (TMDL) Program is a component of the Clean Water Act's framework to restore and protect our Nation's waters. The program is comprised primarily of a two-part process. First, states identify waters that are impaired or in danger of becoming impaired (threatened) and second, for these waters, states calculate and allocate pollutant reduction levels necessary to meet approved water quality standards.

A TMDL is the calculation of the maximum amount of a pollutant allowed to enter a waterbody so that the waterbody will meet and continue to meet water quality standards for that particular pollutant. A TMDL determines a pollutant reduction target and allocates load reductions necessary to the source(s) of the pollutant.

There are 4 TMDLs within the ADW:

- Excessive bacteria (*E. coli*), and sediment in the Ecorse River
- Sediment in Brownstown Creek and Blakely Drain – Marsh Creek
- Sediment in Frank and Poet Drain
- Habitat and Flow Alterations in Smith and Silver Creeks

The MDEQ requires a plan or other documentation outlining how each MS4 will "make progress toward achieving the pollutant load reduction requirement" in each TMDL listed. The ADW communities have developed a collaborative TMDL plan.

ACTIVITY HIGHLIGHTS

The ADW works together on a number of initiatives, publications and reports to meet stormwater permit requirements and improve water quality in the region. Watershed Management Plans for the three watersheds that comprise the ADW were developed and later updated. These plans provide detail on existing conditions, goals and priority improvements and projects. Annual Reports are completed to detail the past years' efforts and accomplishments. Most recently, the ADW members' new individual MS4 permits were due to the MDEQ on April 3, 2017. The ADW worked together to develop several collaborative portions of the permit as well as templates for use by the various ADW members. This work was completed in our continued efforts to work together to address water quality issues, collaborate and share resources. The following collaborative sections of the permit were developed and attached to each ADW members MS4 permit: Public Participation Plan, Public Education Plan, Illicit Discharge Elimination Plan, and Total Maximum Daily Load Implementation Plan.

Since 2010, Wayne County alone has performed IDEP advanced investigations at over 300 commercial and municipal facilities throughout the ADW watersheds. One of the major restoration achievements of the ADW was the installation of 10 grow zones and 2 green roofs within the ADW. In a separate project, a total of 480 trees were planted at 18 sites on property owned by Wayne County or ADW member communities. More than 72,400 gallons per year of rainfall will be intercepted as a result. The ADW has also sponsored a number of training opportunities.

Public education efforts have included ADW calendars, a photo contest, developing displays, resident surveys, a pet waste campaign, a rain barrel sale, and Green Schools outreach. In 2016, the ADW began to award select Green Schools in the ADW with a $1,300 voucher to be used to host the University of Michigan, Museum of Natural History's River Residency Stream Table Simulation Workshops.

The ADW has also developed an effective monitoring plan that includes measurements of: Nutrients (Phosphorus), Sediments (Total Suspended Solids), Bacteria (*E. coli*), and Other (Dissolved Oxygen, pH, Temperature, Conductivity), flow, and biota. These results are analyzed and shared with the ADW members. Data is used to determine priority areas within the watershed.

TERMS TO KNOW

- ADW – Alliance of Downriver Watersheds
- MS4 – Municipal Separate Storm Sewer System
- PEP – Public Education Plan
- PPP – Public Participation Plan
- IDEP – Illicit Discharge Elimination Plan
- P2/GH – Pollution Prevention/Good Housekeeping
- ERP – Enforcement Response Procedure
- TMDL – Total Maximum Daily Load
- SWMP – Stormwater Management Plan
- BMP – Best Management Practice
- GI – Green Infrastructure