



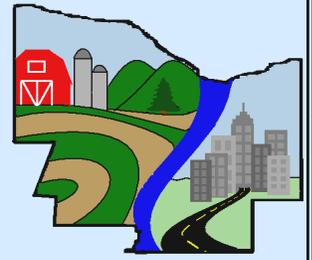
Monroe County Soil and Water Conservation District

2018 Annual Report

Inside:

Staff Information.....	1
District Economic Value.....	2
2018 Accomplishments.....	3
Environmental Education.....	4-6
Education/Forestry.....	7
Genesee River Watershed Coalition.....	8
Agricultural Environmental Management.....	9
Agricultural Assistance and Programs.....	10-11
Invasive Species.....	12
Stormwater Management.....	13-16
Technical Assistance.....	17
Wildlife Programs.....	18

MONROE COUNTY SOIL & WATER CONSERVATION DISTRICT



Mission Statement

The Monroe County Soil and Water Conservation District (MCSWCD) is a municipal subdivision that partners with other agencies and organizations to educate and assist land stewards in planning and implementing comprehensive management practices that stabilize soil, improve water quality, manage stormwater, preserve open space and/or manage fish and wildlife habitat. The District promotes the preservation of: wetlands, woodlots, agricultural land, and low-impact development. We provide services to partners, landowners, developers, farmers, engineers, government and non-government agencies.

Staff 2018

Kelly Emerick

Executive Director

Teresa VanEpps

Principal Office Account Clerk

Stephanie Castle

Watershed Agricultural Coordinator

Jeremy Paris

Soil & Water Planning Technician

Josh LaFountain

Soil & Water Resource Technician

Molly Swearingen

Soil & Water Resource Technician

Megan Aubertine

Soil & Water Conservation Intern

Board of Directors 2018

Rollin Pickering

Chairman & New York Grange Representative

Mark Greene

Vice-Chairman & Practical Farmer Representative

Steve Brew

Legislative Representative

Joshua Bauroth

Treasurer & Legislative Representative

Chuck Colby

Member at Large & Assistant Treasurer

Marc Krieger

Farm Bureau Representative

Maureen Leupold

Member at Large

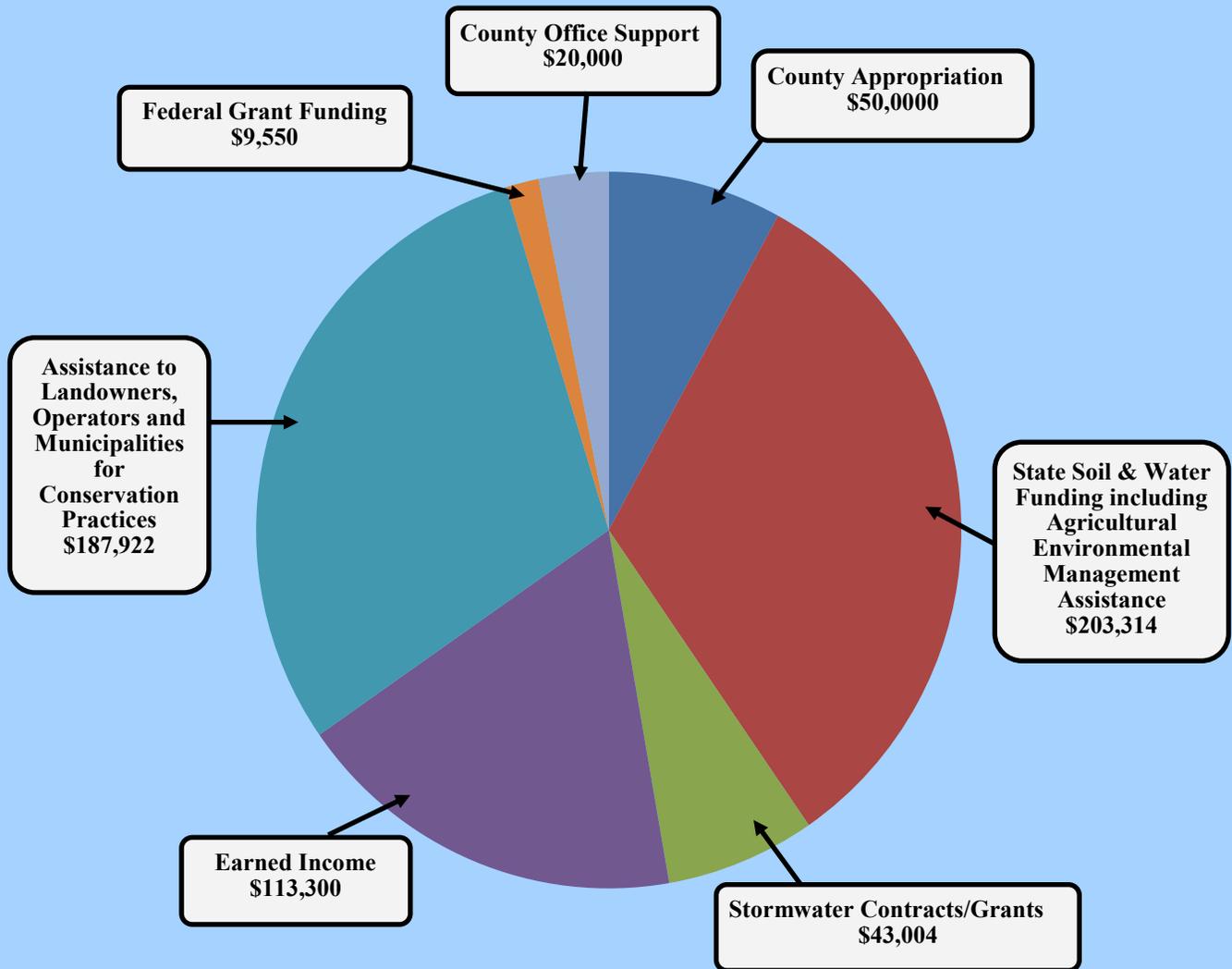
The Monroe County SWCD was created in **1953** by the Monroe County Board of Supervisors under New York State Soil and Water Conservation District Law.

Find us on Facebook at:
www.facebook.com/MonroeCountySWCD



2018 Funding

During 2018 the Monroe County Soil and Water Conservation District (MCSWCD) leveraged **\$627,090** in funds for the **\$50,000** investment from the County. This represents a **\$12.54 return** for each dollar in County appropriation funds to complete conservation initiatives for Monroe County.



In 2018, the MCSWCD responded to **309** requests for water quality technical assistance and **160** requests for land use management. These requests assist landowners, farmers and municipalities of Monroe County with implementing projects, Best Management Practices and other conservation initiatives to protect the abundant natural resources found in Monroe County. The Soil and Water District also provides environmental educational events for children and for residents of all ages to encourage the protection and support of a sustainable future!

Your Soil and Water Conservation District has provided these services since 1953 and will continue to help Monroe County conserve our soil and water resources!

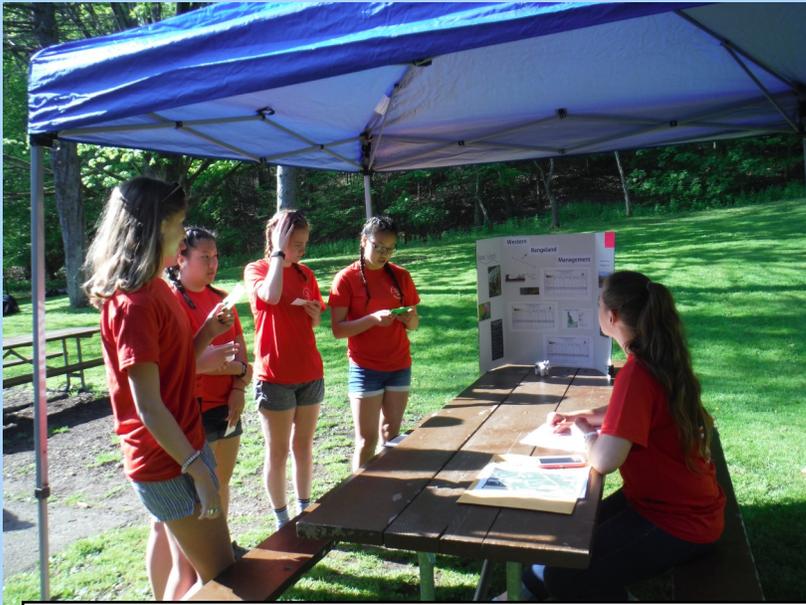
2018 ACCOMPLISHMENTS

Stormwater technical assistance requests	142	Value of agricultural services provided	\$204,120
Contractors, developers, qualified inspectors, municipal officials, engineers and landscape architects trained	611	Acres of agricultural land planned for soil erosion prevention	8,870
Stormwater-related trainings	14	Pounds of agricultural plastic recycled	2,250
Acres of cover crops planted	285	Number of people encountered about invasive species	4,311
Technician assistance requests	156	Native trees and shrubs distributed	16,205
Bluebird & bat boxes distributed	53	Number of residents that received native trees and shrubs	274
Soil group worksheets completed	115	Fish distributed	1,582
Acres of land evaluated using soil group worksheets	5,293	Funds provided for cover cropping projects	\$26, 171
Students educated on environmental topics	986	Square footage of riparian buffer zones created	17,424

Providing Today, Protecting Tomorrow

Envirothon

76 students from **4 schools** participated in Monroe County's Envirothon! This environmental education event at Monroe County's Ellison Park gives high school students the opportunity to spend the day outside competing in teams to test their knowledge on 5 topics: soils, aquatics, forestry, wildlife and current issues. The 2018 current issues topic was Western Rangeland Management. Brighton High School Team 1, came in first place at our event and placed 13th out of 57th in the New York State Envirothon competition!



Above: Intern Megan Aubertine listens to a group giving their oral presentation
 Below: Executive Director Kelly Emerick introduces the students to the event



2018 County Envirothon Winner:
 Brighton High School, Team 1



Thank you to our 2018 Sponsors, Instructors and Volunteers:
 Brittney Brun, Josh Hornesky, Garrett Koplun, Karl Korfmacher, Joe MaGee, Andy Sansone, Ron Schroder and Kaeti Stoss!



EDUCATION

Conservation Field Days

Conservation Field Days is an exciting 3-day environmental education opportunity for local fifth and sixth graders to learn about environmental topics through fun and interactive sessions at Ellison Park. Students participated in hands-on activities to learn more about their natural environment through topics such as biology, invasive species, land use, wetlands and botany! The 2018 Conservation Field Days hosted **910 students** from **14 local schools**!

Garrett Koplun from the NYS Department of Environmental Conservation holds a forestry workshop



NYS Department of Environmental Conservation Officer Hummel teaches students about environmental conservation



Julianna Smith from the United States Army Corps of Engineers conducts a hands-on activity to teach students about invasive species



Students observe macroinvertebrates in Kaeti Stoss' "What's in our Water?" workshop



Celebrate Agriculture Dinner

In partnership with the Monroe County Farm Bureau and Cornell Cooperative Extension, MCSWCD hosts the "Farm to Table" Celebrate Agriculture Dinner. All of the food prepared at this dinner is sourced from local farms! **150 people** attended the dinner including farmers, board members, several legislators and District employees. This dinner is held to raise money for the Farm Bureau Scholarship Fund in support of agriculture education in our community. This dinner is also a great way to remind us to buy local products and support our farmers! Thank you to all of our dedicated sponsors that make this event possible!



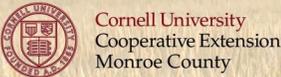
Left: Guests enjoying the Agriculture Dinner
 Right: Farm fresh food from the Dinner
 Below: 2018 Placemat displaying all participating farms and sponsors



WELCOME TO THE 2018 CELEBRATE AGRICULTURE DINNER







Thank You to our Sponsors:

- ~ The Bruce Porter Agency
- ~ Wegmans Food Market
- ~ Steve Werner (Empire Tractor)
- ~ Hopkins Farm
- ~ Monroe Community College, Agriculture and Life Sciences Institute
- ~ Howlett Farms
- ~ Marc Krieger
- ~ Genesee Valley Equine Clinic
- ~ Matthew Carey Tool Sales (Snap-on)
- ~ Beth Rodgers Agency

Thank You to Everyone Who Made Donations for the Auction and Raffle Items.

Thank You to the Monroe County Parks Department for Hosting this Event!



The food tonight was sourced locally from Monroe and neighboring counties:

- ~ Ellsworth Farm - Eggplant, Sweet Corn & Watermelon
- ~ Colby Farms - Cabbage
- ~ Bolton Farms - Lettuce
- ~ Burch Farms - Peaches
- ~ Schutt's Apple Mill - Apple Cider Donuts
- ~ Jenny Lundberg Agency - Coffee Station
- ~ Bruce Porter Agency - East Hill Creamery Cheese Wheel
- ~ Upstate Niagara Cooperative, Inc. - Dairy Products
- ~ Chase Farms - Beef
- ~ Sunscape Farms - Eggplant, Garlic, Onion & Jalapeños
- ~ Baxter Family Farm Market - Peppers
- ~ Hopkins Farm - Sweet Corn
- ~ Roberts Family Farm - Hot Peppers, Tomatoes & Cucumbers
- ~ Hidden Springs Farm - Zucchini, Yellow Squash & Cucumbers
- ~ Poehlman Family Farm - Broccoli
- ~ Gal-A-Tin Acres - Chicken
- ~ Barilla America, Inc. - Pasta

























EDUCATION

Conservationist of the Year

Lawrence Staub, Jr. was awarded the 2017 Conservationist of the Year. Larry is the Director of the Monroe County Parks Department and the Seneca Park Zoo.

Larry has earned a reputation for being an innovative steward of Monroe County's 21 Parks, with numerous accomplishments that include: The transformative "A Step into Africa," and "Animals of the Savanna" habitats at the Seneca Park Zoo and corresponding introduction of new species. He has been a remarkable supporter of the Monroe County Soil and Water Conservation District's Envirothon & Conservation Field Days Youth Education Programs, where he has provided his staff and the County's Ellison Park in the Town of Penfield to host these events. He has also supported initiatives to combat the invasive Emerald Ash Borer by planting thousands of trees throughout the County.



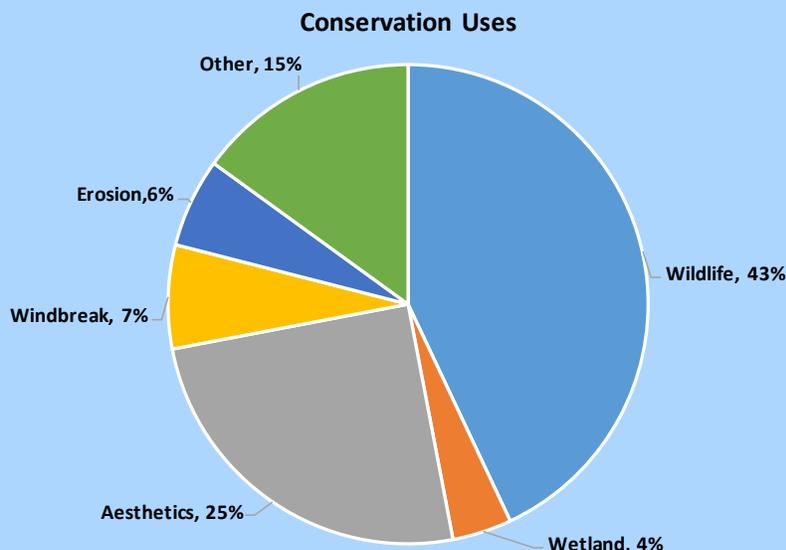
Larry Staub receiving his award with Executive Director Kelly Emerick

FORESTRY

Conservation Tree & Shrub Program

16,205 trees and shrubs were distributed to over 274 landowners in 2018 throughout Monroe County to be used for various conservation purposes. Some species that were offered in the 2018 Tree and Shrub Program included Eastern white pine, American witchhazel, blueberry and oak. We would like to thank our staff, Board member Maureen Leopold and her husband Steve, and volunteers from Cornell Cooperative Extension's Master Gardner program that helped to prepare and distribute seedlings. The event took place at the Monroe County ecopark recycling facility.

The figure below reflects the conservation uses of the trees and shrubs purchased from the Program.



Tree seedlings ready for distribution



Genesee River Watershed Coalition

GENESEE RIVER WATERSHED
COALITION OF CONSERVATION DISTRICTS

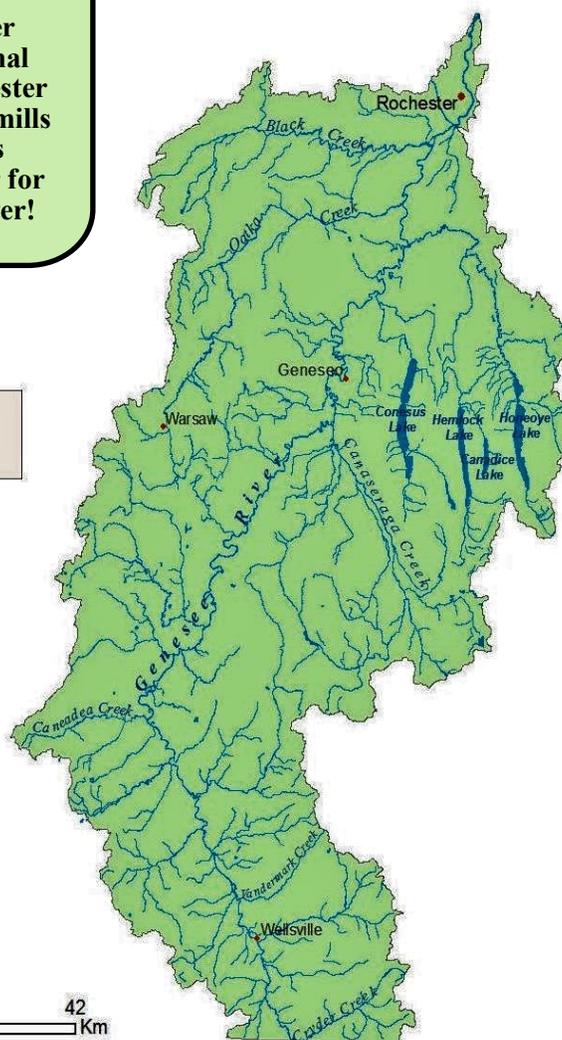
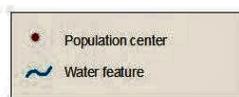


Did You Know?

The Genesee River provided the original power for the Rochester area's 19th century mills and still provides hydroelectric power for Downtown Rochester!

The Genesee River flows 160 miles north and drops 2,250 feet through a full range of rural, suburban, and urban communities. The watershed is nearly 2,500 square miles. The Genesee River Watershed Coalition is committed to addressing ongoing water quality concerns relating to agriculture.

The Coalition was established in 2016 with a five-year directive from the New York State Department of Agriculture and Markets. The Coalition is actively pursuing additional funding for the continuation of agricultural conservation and streambank stabilization projects throughout the watershed. In 2018, the Coalition worked on an inventory of farm stewardship practices completed throughout the watershed by Soil and Water Conservation Districts since 2010. This inventory of practices will assist in determining the most cost effective ways to improve water quality on farms. The inventory will be effective beginning in 2019, with three seasonal staff hired to complete data entry at the participating districts. A summary report is anticipated by the end of 2019.



The Coalition owns two interseeder machines from Interseeder Technologies, available for rent throughout the watershed. Interseeding is an innovative solution for planting cover crops in standing row crops, ensuring there is never exposed bare ground throughout the year, regardless of weather patterns. The cost to rent the machines is \$15/acre and partnerships with Cornell Cooperative Extension and American Farmland Trust have been established to promote the adoption of the program. Strong partnerships have been formed with local, state and regional stakeholders, including American Farmland Trust, NRCS, and Cornell Cooperative Extension.

AGRICULTURAL ENVIRONMENTAL MANAGEMENT

\$204,120 in
Agricultural Services
were provided by the District in
2018!



Farms in the AEM program progress through a series of tiers as follows:

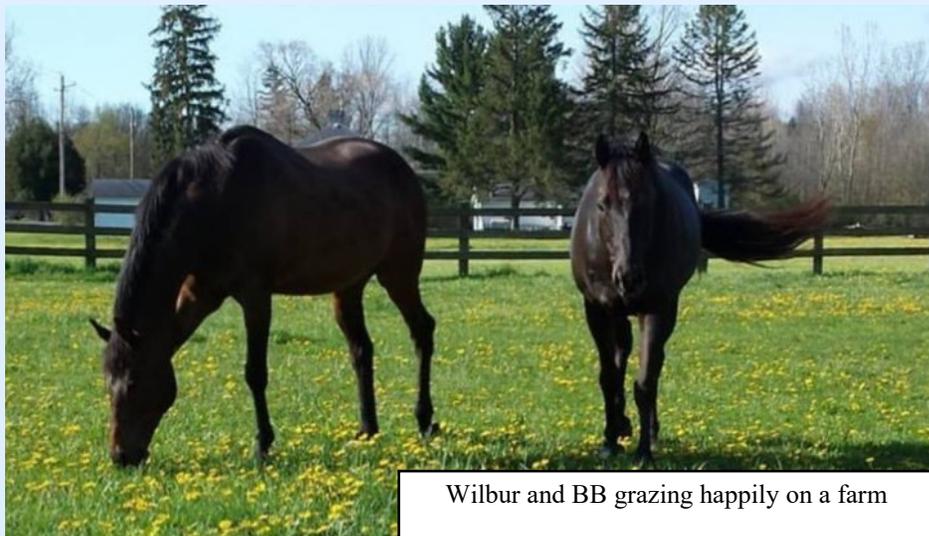
2018 AEM Accomplishments

Tier 1 - Inventory current activities, future plans, and potential environmental concerns	3 survey worksheets completed
Tier 2 - Document current land stewardship; assess and prioritize areas of concern	3 new farm assessments completed
Tier 3A - Develop conservation plans addressing environmental resource concerns while helping to reach farm goals	1 farm plan completed
Tier 4 - Implement plans utilizing available financial, educational, and technical assistance	10 farm best management projects implemented
Tier 5A, 5B - Evaluate to ensure the protection of the environment and farm viability	1 farm plan information update completed
	5 farm conservation plan updates completed

12% of the farms that participate in AEM are horse farms!

A large part of the Monroe County Soil & Water Conservation District is providing agricultural services to farmers. The District assists farmers in implementing Best Management Practices such as reducing soil and sheet erosion, improving soil health, nutrient management, farmstead drainage and water management. In 2018, the District completed 2 soil health projects and installed 10 Best Management Practice Systems.

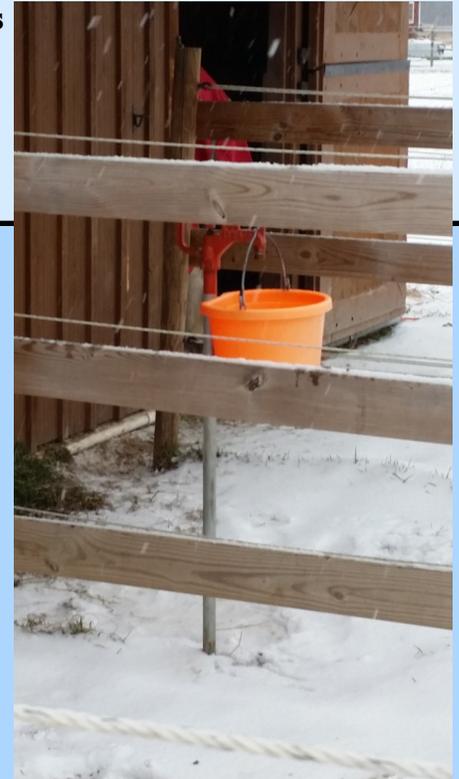
Agricultural Environmental Management activities at MCSWCD are funded through a variety of organizations and grants, such as NYS Agricultural Non-Point Source Abatement and Control Programs and the New York State Climate Resilient Farming Program through the NYS Department of Agriculture and Markets.



Wilbur and BB grazing happily on a farm

Agricultural Non-point Source Abatement and Control Program Project

\$79,712 was awarded to the Monroe County SWCD from the Agricultural Non-point Source Program for the implementation of best management practices to address agricultural water quality and erosion concerns on four farms in the Irondequoit Creek Watershed. In 2018, the SWCD implemented a Water and Sediment Control Basin on a farm (shown below) which holds surface run-off and slowly discharges it. Approximately **35 tons of sediment** per year are now saved from entering Irondequoit Creek. On a second farm, 620 feet of water line was installed to convey water from the farm well to the grazing pastures and barns (right) to provide a secure source of water for farm animals.



Agricultural Plastics Recycling

The Monroe County Soil & Water Conservation District assisted **8 Monroe County farms** participating in the USAg Plastic Recycling Program. Nearly **2,250 pounds** of agricultural plastic were recycled in 2018.

USAg specializes in the recycling of agricultural crop protection plastics. The plastics must be properly prepared before collection by rinsing, cleaning and being kept away from rain water. The Ag Container Recycling Council provides recycling services and works with multiple agencies to ensure the safe disposal of these products. They also identify acceptable end uses for recyclables, so they can be reused!

By recycling agricultural plastic, we help save space in landfills, reduce the use of fossil fuels and save water!



AGRICULTURAL PROGRAMS

Cover Cropping



MCSWCD completed **115** soil group worksheets in 2018 totaling **5,293 acres** of land evaluated. Soil group worksheets are used to apply for tax exemptions for land used for agricultural purposes.

Above: Field in winter without cover crops planted
Below: Field in winter with cover crops planted



A radish from the cover cropping at Meisenzahl Farm

In 2018, **285 acres** of cover crops were planted in Monroe County. Rotating in cover crops post-harvest can remove nutrients from entering the watershed, can minimize erosion and helps maintain the overall health of the soil.

218 acres of cover crops were planted in the Genesee River Watershed through funding provided by the Great Lakes Restoration Initiative grant. The planted crops included radish, rye and clover with an estimated cost of \$17,704. Cover cropping also took place in the Irondequoit Creek Watershed with a total of **67 acres** of annual rye being planted for soil health at a cost of \$8,467, funded by the NYS Department of Agriculture and Markets Non-Point Source Pollution Abatement and Control grant. It is estimated from the Spreadsheet Tool for Estimating Pollutant Loads (STEPL) that **47.6 lbs.** of nitrogen, **5.5 lbs.** of phosphorus and **2.7 tons** of sediment per year will be reduced from the total that enters the Genesee River Watershed.

Invasive Species



MCSWCD partnered with Monroe County Department of Environmental Services (DES) for funding to provide a Watercraft Steward Program at the Port of Rochester, a high priority boat launch, that provides public outreach and education on slowing and preventing the spread of aquatic invasive species. Monroe County partnered with the Finger Lakes Institute to hire a steward who was able to inspect **1,814** boats at the port and encounter **4,311** people during the course of the season. Some invasive species found were spiny waterflea, Eurasian watermilfoil, zebra mussel, curly leaf pondweed and variable milfoil. The cost of this project was \$7,500.



Zebra Mussel
(USGS Archive, Bugwood.org)



Curly Leaf Pondweed
(L.J. Mehroff, Univ. of Ct.)



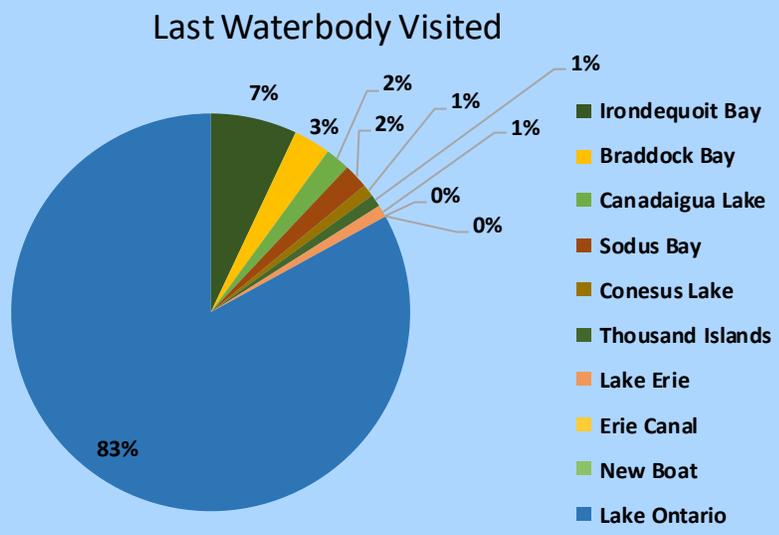
Spiny Waterflea
(Minnesota DNR)

The graphic below shows the last waterbody visited by the boats that were inspected for invasive species

Andy Sansone of Monroe County DES (on right) and steward Alex, from Finger Lakes Institute, with the Invasive Species Disposal Station where boaters are encouraged to dispose of any plants or animals on their boat and to dump leftover bait.

In 2018, a Supplemental Tree Planting for Emerald Ash Borer (EAB) Mitigation was implemented with a total of **170** large caliper trees planted at 5 parks in Monroe County. These plants covered about **6 acres**. Funds were contracted to MCSWCD through the U.S. Forest Service under the Great Lakes Restoration Initiative Program. Estimated costs for plantings through the end of 2018 was \$42,170.

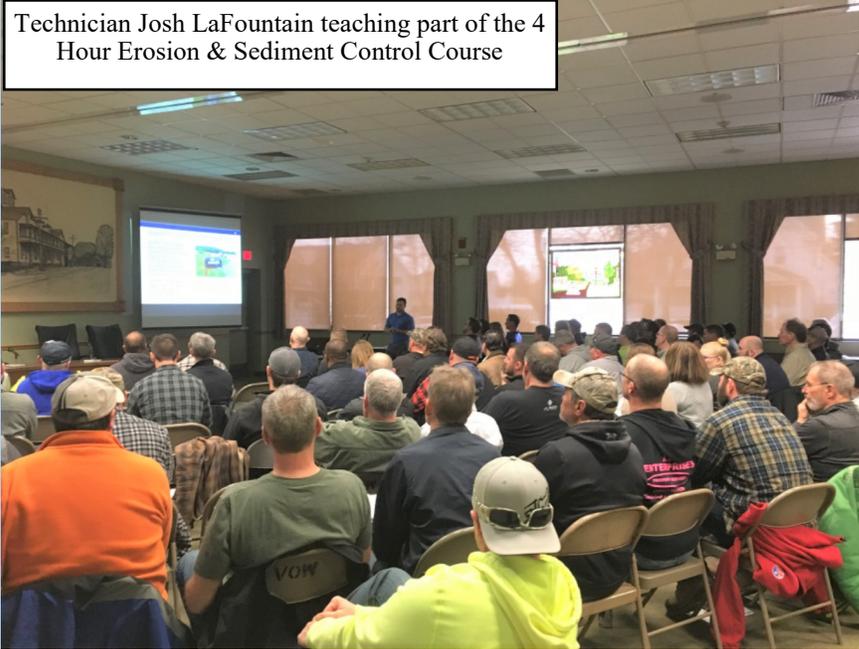
Emerald Ash Borer
(NYS DEC)



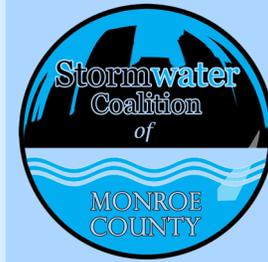
STORMWATER MANAGEMENT

Stormwater Management Training

Technician Josh LaFountain teaching part of the 4 Hour Erosion & Sediment Control Course



In 2018, the District provided **\$242, 960** and **156** technician assistance requests for Stormwater Services to landowners and municipalities!



The Monroe County Soil and Water Conservation District hosted **14 stormwater related trainings and workshops** in 2018. The District held 7 sessions of the 4 Hour Erosion/Sediment Control Training Sessions, 5 WNY Stormwater Management Training Series courses, 1 training for Monroe County Department of Transportation and 1 Stormwater Pond training for Hilton, NY. A total of **611 people**, such as engineers, municipal officials, landowners and contractors attended these events.

A **Living Next to Stormwater Ponds** instructional course was held to educate **47 homeowners** on how to properly care for their stormwater ponds to ensure that they are working properly!

What can you do at home?



Do your part in helping maintaining the ponds by...

- Cleaning up pet waste
- Reducing or eliminating fertilizer application
- Cleaning up and properly disposing of yard waste
- Applying grass seed to bare soil
- Leaving a buffer when mowing near the pond
- Do not dump things in [stormdrains](#)



This image (left) is an example of a properly seeded streambank used in our Erosion & Sediment Control for Highway Projects presentation for the Monroe County Department of Transportation

STORMWATER MANAGEMENT

Construction

The District conducted a total of **142 Erosion and Sediment Control Construction Inspections** in 2018. Construction sites are big contributors to soil erosion. They are often required to move, utilize or expose large sections of soil, which can easily run off site. These inspections allow the District to help maintain the implemented erosion control practices on these sites. By maintaining these practices, soil is less likely to flow off site allowing the water quality of surrounding waterbodies to remain protected from pollution.

Photo shows a deficient sediment control (damaged inlet protection) found on a winter construction inspection



Stormwater Pond Inspections



Stormwater pond visited by staff due to depth concern

7 stormwater pond related requests were completed by the District in 2018. These inspection requests can be triggered by issues such as nuisance wildlife populations or excessive plant growth.

Stormwater ponds are often misidentified as recreational or aesthetic ponds. Their main purpose is to catch stormwater run-off from impervious surfaces in developed areas. Collected sediment and pollutants from run-off are then given a chance to settle out before being discharged to local waterways. These ponds also serve as flood protection for communities. Stormwater ponds are not meant for recreational activities such as fishing or boating.



A stormwater pond with a proper aquatic bench with vegetation that provides treatment for nutrients

STORMWATER MANAGEMENT

Aerial Erosion Index

Under funding from New York State Part B Conservation Project Financial Assistance, aerial footage of the Lake Ontario Coastline in the Rochester Embayment area was collected using an Unmanned Aerial System (UAS-drone). The drone was used to assess the damage and erosion caused by the high water events on Lake Ontario in 2017. The footage was used to create a Geographic Information System (GIS) layer file of damaged or eroded areas along the shoreline. This layer file, along with the raw footage was shared with Monroe County Department of Environmental Services as well as the municipalities located within the Rochester Embayment Area including the Town of Greece, City of Rochester, and the Town of Irondequoit. In total, **9.5 miles** of coastline were documented over **seven flights**. The total estimated value of these services was \$9,812. The District plans to expand the use of the newly acquired drone for numerous other conservation related services.



This photo was captured by the drone on one of the flights over the Rochester Embayment



Road-Stream Crossing Assessments

In 2018, District staff completed **82 culvert assessments**. The purpose of these assessments is to ensure that fish and wildlife have a clear passage of man-made structures such as culverts and bridges. The estimated total cost of this project was \$5,660, provided by the NYS Ecosystem Based Management 2017 North Atlantic Aquatic Connectivity Collaborative (NAACC) Project. Assessments were completed for two watersheds (Oatka Creek and Mill Creek-Black Creek) in Monroe County and none of the inspected crossings were found to be in poor condition or posed a significant barrier to wildlife. The data was sent to municipalities to add to existing information on crossings. The program will be expanded with the goal of assessing crossings in all Monroe County watersheds and assessments will be utilized to plan for future replacements and to secure funding.



Riparian Buffer

The District completed Phase II of a riparian buffer project at Union Station Park in the Town of Chili along a Black Creek tributary. **17,424 square feet** of buffer were created and the estimated cost for the entire project is \$29,765. Funds were secured by the NYS Department of Environmental Conservation's Water Quality Improvement Program (WQIP). A riparian buffer is a vegetated area along a stream or waterbody that creates space between the water and land use activities. The main goal was to provide streambank stabilization in sections where erosion occurred. According to the Spreadsheet Tool for Estimating Pollutant Loads (STEPL), Nitrogen loads will be reduced by **41%**, Phosphorus by **45%**, and sediment loads by **73%**!

The District planted **295** native trees and shrubs in Phase II to ensure the water quality and streambank stability of Black Creek. These species included American Basswood, Boxelder, Red Maple, Silky dogwood and Sycamore to name a few! The pictures below show the site during Phase II of tree planting.



TECHNICAL ASSISTANCE

In addition to agricultural and stormwater technical assistance programs, MCSWCD responded to **52 technical assistance requests** for site visits and assisting landowners over the phone. These services can include requests concerning drainage, soils, erosion, conservation compliance, constructing ponds and vegetation issues.

District staff responded to **13 site visits** regarding drainage issues in 2018. Drainage issues often result from blocked water flow upstream or heavy rainfall events. Staff will visit the site of the issue, attempt to identify the cause and will provide a solution or steps the landowner can take to remediate the problem. For example, at a site visit in Penfield, District staff identified that a constructed berm was altering drainage patterns and worked with the Town of Penfield to implement a drainage tile to help alleviate flooding on lower areas of the landowner's property.

Monroe County Soil and Water also provides permit assistance to anyone who may be looking to start a project on their property or wants more information about their land. Landowners can use this service before reaching out to permitting agencies such as NYS Department of Conservation or Army Corps of Engineers. MCSWCD assisted with a total of **24 permit assistance** requests involving streams, pond stocking, and floodplain development.



These images (above, bottom right) all show site visits to homes with drainage concerns



A potential Harmful Algae Bloom site visited by staff in 2018

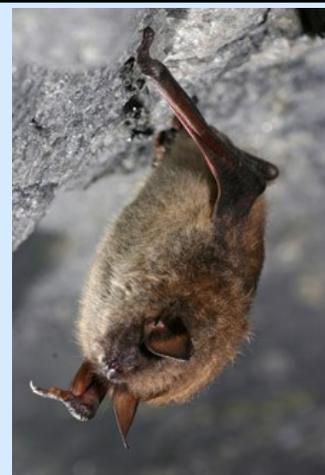


WILDLIFE PROGRAMS

Wildlife Houses



Purchasing a wildlife house for your backyard is a simple thing you can do to help the environment! **53** bluebird and bat houses were sold to residents in 2018. These wildlife houses are available from the District year round and provide shelter for our backyard friends! Purchasing a bluebird house helps the state bird of New York in the cold winter months. Little Brown Bats are threatened by White-Nose Syndrome in New York and their populations are severely threatened. Having a bat or bird house in your yard can help these creatures find a safe place to live!



A bluebird house offered by the District

Bats feed on mosquitoes!

Little Brown Bat
(NYS DEC)

Fish Stocking Program

The District holds 2 Fish Stocking Programs each year. These events allow landowners to purchase a variety of fish species including largemouth bass, catfish and for those who have the proper permitting, Triploid Grass Carp. Fish are purchased to increase recreational fishing opportunities, to increase the number of native species and to enhance the overall health of a pond!

In 2017, **1,582 fish fingerlings** were distributed to **13 landowners**. Of the fish sold in 2018, 60 were Triploid Grass Carp.

The District distributed **6 bales of barley straw** in 2018 to assist customers with a natural solution for controlling algae growth in their pond.



Small trout available for purchase during the Fish Program

Technician J. LaFountain helping a customer with their fish order

Monroe County Soil and Water Conservation District

145 Paul Road, Building 5
Rochester, NY 14624

Phone: (585) 753-7380 Fax: (585) 753-7374
www.monroecountyswcd.org



Find us on Facebook at: www.facebook.com/MonroeCountySWCD

Cover Photo: Soybean field in the Town of Rush. Soybeans are a common cash crop in Monroe County and 46.5% of the farms that participate in AEM are cash crop farms.



Programs and services offered through the MCSWCD are made possible through the financial support of the County of Monroe, State of NY, specialized grant opportunities, and fundraising programs. All SWCD programs and services are offered on a nondiscriminatory basis without regard to race, color, national origin, political beliefs, religion, sex, age, marital status, sexual orientation, or disability.