MONROE COUNTY SOIL & WATER CONSERVATION DISTRICT



2024 ANNUAL REPORT



Table of Contents

2024 Funding	Page 2
2024 Accomplishments	Pages 3-4
Environmental Education	Pages 5-6
Forestry	Pages 7-8
AEM	Pages 9-10
Additional Agricultural Programs	Page 11
Genesee River Watershed Coalition	Page 12
Stream Stabilization	Pages 13-15
Invasive Species	Pages 16-18
Stormwater Management	Pages 19-20
Wildlife Programs	Page 21
Staff & Board Members	Page 22

Who We Are & What is Our Mission?

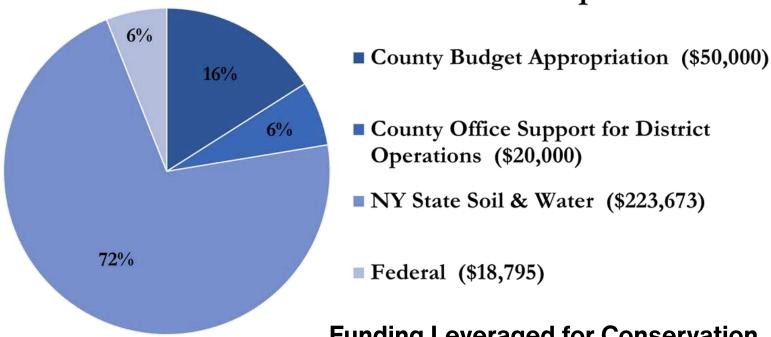
The MCSWCD is a municipal subdivision that partners with state, local and federal agencies, as well as watershed groups to educate and assist landowners and municipalities in planning and implementing best management practices that stabilize soil, improve water quality, manage stormwater runoff, preserve open space, and manage fish and wildlife habitat.

2024 Funding

During 2024 the Monroe County Soil & Water Conservation District (MCSWCD) leveraged \$917,941 for the \$50,000 investment from the county.

This represents a \$18.36 return for each dollar in County appropriation funds to complete conservation initiatives for Monroe County.

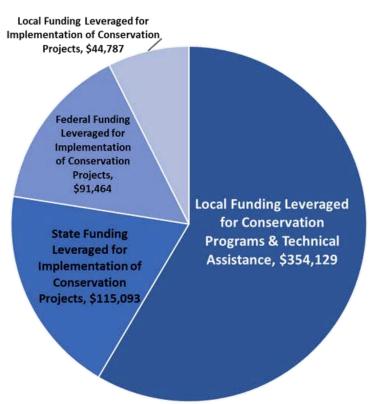
Partner Investment for MCSWCD Operations

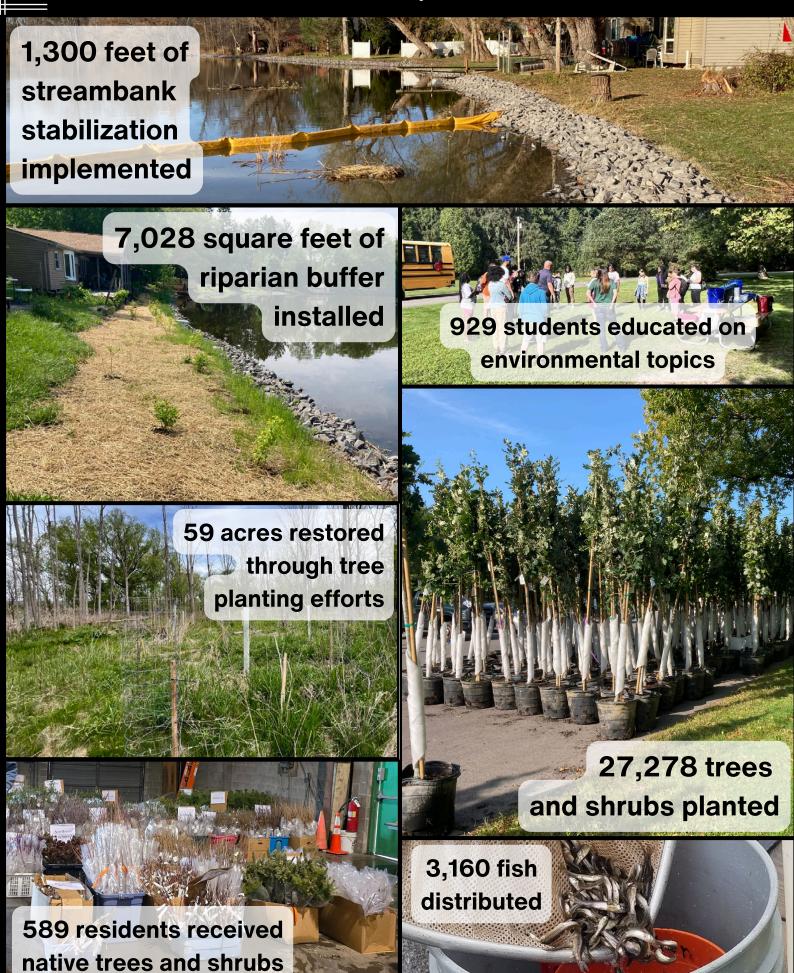


The District continues to provide a variety of valuable services to Monroe County and its residents, including technical assistance to local towns and villages, businesses, landowners, agricultural producers and other county agencies.

In 2024, the MCSWCD responded to <u>215</u> requests for water quality technical assistance and <u>138</u> requests for land use management, of which <u>204</u> were requests from our local municipalities.

Funding Leveraged for Conservation Programs & Projects





2024 Accomplishments



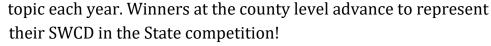
Envirothon



The Envirothon is a series of events in which teams of high school students compete by answering questions about five environmental topics: Aquatics, Forestry, Soils, Current Issues, and Wildlife. The 2024 Current Issue topic was "Renewable Energy for a Sustainable Future."



Teams also prepare a short oral presentation based off of the Current Issue



Held at Monroe County's Ellison Park, 100 students from 6 schools participated in the 2024 Monroe County

Envirothon!

2024 Envirothon winning team

The Harley School took first place at our event and placed 19th out of 41 teams at the state competition in Cortland, NY.



This year District staff also had the pleasure of participating in the 2024 National NCF-Envirothon, which was held in Geneva, NY. Staff volunteered their time as oral presentation judges, hearing from various teams from across the country!

Conservation Field Days



Mol E. Cule's Journey with DEC

Hosted in Ellison Park, Conservation Field Days is an opportunity for students to learn about environmental issues like invasive species, agriculture, water quality, and more from a variety of experts from organizations like Seneca Park Zoo, NYS Department of Environmental Conservation (DEC), Genesee Country Village & Museum, and more!

This year's event was a success, with over 700 5th and 6th grade students from 13 **schools** attending the three day event to learn about a variety of topics including plastic pollution, dairy farming, invasive species, and more and participated in handson activities including making their own seed balls, making butter, and going on a GPS scavenger hunt! Overall, 19 different organizations provided engaging, handson presentations to students! Thank you to all our volunteers for this event. If it wasn't for you it would be impossible to host this great multi-day outdoor educational event.



Tree Planting with Monroe County Parks Department

Water Quality Education

In 2024, District staff participated in **5** local programs about water quality reaching **over 140** youth and adults. These events involved a stream health activity for youth involving aquatic macroinvertebrate surveying and determination of stream health based on their findings and using an interactive watershed model to learn how their impacts have much bigger effects than they may realize.

Families participating in Mendon Public Library's summer reading program sampled Honeoye Creek in July, while scouts from Pack 2005 Rochester NY and their families sampled Irondequoit Creek in August. Both groups then surveyed their macroinvertebrate findings to determine the relative health of that section of stream.

Using the Enviroscape, an interactive watershed model, District staff educated youth and their families at three separate events including the Great Outdoors Fest at Genesee Country Village & Museum (GCV&M), Earth Day at Mendon Public Library, and RCSD #16's annual project fair. The Enviroscape allows students to act as a storm event and see the results of said storm on their local streams from pollution, runoff, erosion, etc. and how it eventually affects Lake Ontario. The model helps tie in how connected everything is from a single stormwater drain to their drinking

water source.



Watershed health activity at GCV&M
Great Outdoors Fest



Irondequoit Creek macroinvertebrate sampling

Youth examining macroinvertebrates found in Honeoye Creek



*The macro activity is not an official survey or comprehensive study of the streams they take place in and as such are not indicative of the overall health of said streams. Often this activity is held in an area way from the main section or center of the stream for safety and access, resulting in a very small area of the stream being sampled. This activity also does not take into account weather, turbidity, etc. which have an effect on sampling results.

Watershed health activity at school project fair



FORESTRY

Conservation Tree & Shrub Program

23,979 trees and shrubs were distributed to **589** landowners in 2024, sequestering approximately 1,438 metric tons of CO2 over the next 10 years!

Landowners purchase the trees and shrubs to be used for various conservation purposes such as wind breaks, wildlife habitat, stormwater runoff control, and climate resilience.

New species for 2024 that were popular included American Hazelnut, Northern Bayberry, and Pin Oak, while returning popular species included Colorado Blue Spruce, Paper Birch, and Red Maple.

New for 2024











Northern Catalpa



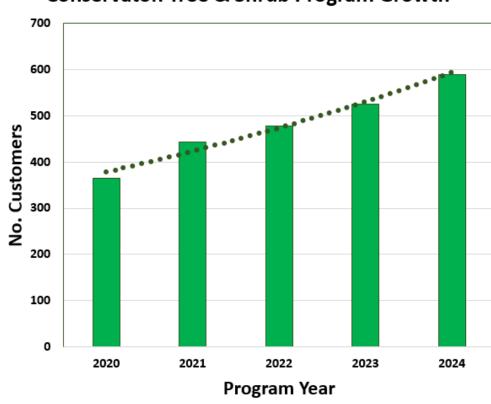


The District once again partnered with the County Department of Environmental Services to host the annual Conservation Tree & Shrub Program at the county's ecopark.



Conservation Tree & Shrub Program

Conservation Tree & Shrub Program Growth



The Conservation Tree & Shrub Program has continued to expand over the last five years with our number of customers growing each year.

In 2024, program participation grew **61%** since 2020 with 589 residents participating in the program.

Residents across the county are reached through our District mailing list, town or village advertising, social media, online or printed media, and local library advertising.

Distribution of Items Sold in 2024

In addition to bare root seedlings, we also offer wildflower seed mixes, bluebird nest boxes, bat roosting boxes, tree shelters (tube, stake, bird netting), flags for marking, and fertilizer tablets.



AGRICULTURAL ENVIRONMENTAL MANAGEMENT

AEM is a locally led and implemented voluntary program focused on watershed-based water quality concerns, farm-specific conservation practices, and individual farm business objectives. AEM has been a consistent framework for over 20 years to partner with farmers on environmental management to promote and protect the preservation of Monroe County's soil and water quality while helping to ensure farm viability for future generations.



Honeoeye Creek and Irondequoit Creek watersheds were focus areas for the AEM program in 2024. Those watersheds comprise 8,217 acres and 9,535 acres of agricultural land respectively (or total of 17%) in Monroe County with over 25 farms participating in AEM from both watersheds.

MCSWCD dedicated **311 hours** to AEM Services in 2024, dedicated to technical assistance to farms, education, partnership, and outreach services where we partner and work with fellow organizations in the region.

In 2024, the District built many new and maintained existing partnerships for joint problem-solving, coordination and coalition building for agricultural related programs in the county. Staff were a part of Monroe County's Climate Action Plan Ag Stakeholder meetings as well as assisting in coordinating the meetings for farm surveys to begin the development of an Organics Management Plan. The District participated on the

County's Farmland Protection Plan Updates Steering Committee, as well as participating in the development of the Town of Hamlin's Farmland Protection Plan. Monroe SWCD continued to act as the Genesee River Watershed Coalition coordinator to continue partnering with NYS Department of Environmental Conservation, Genesee-Finger Lakes Regional Planning Council,

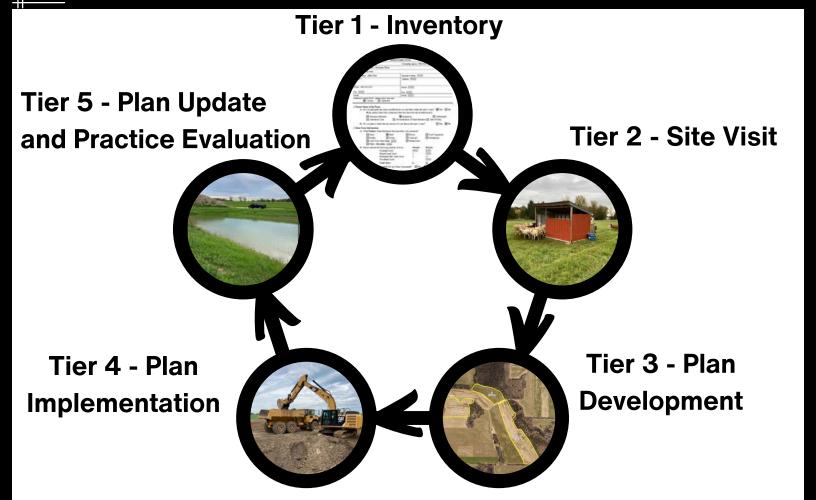
and other government and non-government organizations on the valuable work to develop a Watershed Implementation plan for the basin, where agriculture is the largest land use in the watershed. Continued significant partnerships also included USDA Farm Service Agency, Cornell Cooperative Extension of Monroe County, and the Urban Ag Working Group.

AEM targets program, technical, and financial assistance to farms in a cost-effective manner through a well-established environmental planning process and implementing best management practices that are based on scientific principles and research.



Tier 5B irrigation reservoir evaluation with the farmer

AEM Planning Uses a Five-Tiered Approach



AEM Benefits

The AEM Program helps farmers address sources of water pollution originating from agricultural activities by:

- Documenting existing environmental stewardship
- Assessing environmental concerns associated with their farming operations
- Developing conservation management plans
- Implementing best management practices from the conservation management plan to address identified environmental concerns
- Allowing access to technical and financial resources to manage changes in farm operations or implementing best management practices
- Advance farmers positive contributions to their communities, food systems, the economy, and the environment

AGRICULTURAL PROGRAMS

Urban Agriculture

The MCSWCD continued their partnership with the Urban Agriculture Working Group (UAWG) in 2024 as a way to make connections with those involved in urban agriculture and community gardening in the City of Rochester.

The UAWG'S mission is to strengthen Rochester NY's urban agriculture movement, develop community leaders, and collaboratively identify and address policy, resource and educational barriers to urban agriculture and community gardening of all kinds.

The District participated in the 2024 Spring Urban Agriculture Conference held at Edison Career & Tech High School on April 27th. The District was one of many organizations who tabled at the conference providing attendees the opportunity to learn about our work with urban agriculture. The conference also featured various workshops, a panel discussion on building a thriving urban agriculture and developing urban growing throughout the state, and a keynote speech from Qiana Mickie, Executive Director of the NYC

 $Mayor's\ Office\ of\ Urban\ Agriculture.$

In addition to the spring conference, District staff attended the 2024 Urban & Small Scale Growers Meeting in Buffalo, NY with Erie County SWCD to learn more about urban agriculture in the City of Buffalo and share the experiences of working with urban growers communities in the City of Rochester.



Agricultural Plastics Recycling

The District partnered with Ag Plastics Solutions LLC to promote the recycling of **1,276 pounds** of agricultural plastics from **6 farms** within Monroe County in 2024.

Recycling containers are processed for use in certified end use products such as: agricultural drain pipe, cinder blocks, fence posts and nursery pots rather than landfilled or burnt. By recycling agricultural plastic, we help save space in landfills, reduce the use of fossil fuels and save water.

AGRICULTURAL PROGRAMS

Genesee River Watershed Coalition

COALITION OF CONSERVATION DISTRICTS

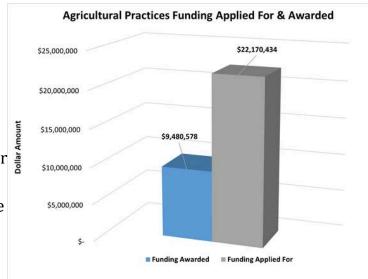


Genesee River Watershed The Genesee River Basin spans a large area in New York State and a portion of Pennsylvania, encompassing a variety of land use types, including agriculture, forests, and developed areas. The Genesee River faces water quality issues, including high levels of sediment and phosphorus. This watershed is of particular importance because the

Genesee River discharges into Lake Ontario, a part of the largest body of freshwater in the world, the Great Lakes.

The Genesee River watershed covers approximately 2,500 square miles that includes portions of ten counties in New York and Pennsylvania. These 10 counties' Soil & Water Conservation District's formed the Genesee River Watershed Coalition (GRWCCD) in 2016 to improve water quality through a collaborative approach to promote, evaluate, prioritize, and implement practices for soil conservation and non-point source pollution prevention throughout the basin. Building on previous work, the GRWCCD working with NYS Department of Environmental Conservation and other partners, continued efforts to develop a Watershed Implementation Plan (WIP) that focuses on five key sectors for implementation: agriculture, forested areas, wastewater, urban environments, and septic systems. An engagement forum was held in the spring of 2024 to discuss the Genesee River WIP. This forum highlighted eligible activities such as wastewater treatment improvement, nonpoint source abatement and control, and aquatic connectivity restoration. In essence, the GRWCCD's work on the 2024 WIP represents a strategic effort to improve the health of the Genesee River watershed by identifying problems, setting goals, and developing actionable strategies in collaboration with stakeholders with an interest in improving water quality in the basin.

GRWCCD members applied for \$22,170,434 and were **awarded \$9,480,578** in 2024 to implement agricultural best management practices throughout the GRW to reduce sediment and nutrients. 100% of all the funds awarded were from the NYS Environmental Protection Fund with support from the NYS Soil & Water Conservation Committee for projects such as livestock waste storage (with or without covers and flares), silage leachate collection and treatment, erosion control systems including cover cropping and no-till farming, and riparian buffers.



Non-agricultural practices such as stream and shoreline stabilization projects and municipal salt storages were also applied for in the amount of \$1,495,871 and awarded \$140,621.

Black Creek Streambank Stabilization

The District implemented a large streambank stabilization project along Black Creek in the Village of Churchville. With funding through the NYS Department of Environmental Conservation's Water Quality Improvement Program, this project was the culmination of years of planning and coordination between the District, the Village of Churchville and participating landowners.

Black Creek is a popular recreational creek and a major tributary of the Genesee River. The creek has a watershed of approximately 202 square miles, with its' headwaters found in Wyoming County, as it flows through Genesee, Orleans, and Monroe Counties before joining with the Genesee River in the Town of Chili. The project section of Black Creek is considered a reservoir with a very wide channel and slow moving water as it lies upstream of the Churchville Dam. Over the last 20+ years, landowners have reported losing 10-15 feet of their land along with a noticeable loss and corresponding lack of beneficial riparian vegetation adjacent to the creek resulting in the need to stabilize the banks and improve the streamside vegetation. The erosion appears to be primarily a consequence of wind-driven wave erosion and consistently saturated soils along with impacts from upland drainage.

In total, 1,075 feet of streambank stabilization was implemented along the site using a combination of rock revetment bank stabilization and peaked stone toe protection. As there was no land access from the backyards, the project had to be constructed via a floating barge in the creek - definitely not your typical stream project! A five foot wide floodplain bench was also installed along approximately 400 feet of the creek. This bench area and remaining project banks were then planted with trees, shrubs, and herbaceous perennials creating a 5,375 square feet (0.12 acres) riparian buffer. District and Village of Churchville DPW staff installed a total of 180 conservation plantings.

A riparian buffer is an important component of a stream project and as the plantings mature, they will help increase the shoreline's natural resiliency to erosion, minimize sediments, and nutrients from entering the creek and improve aquatic habitat, all due to the presence of the trees and shrubs and their roots.







Department of Environmental Conservation

Black Creek Streambank Stabilization

Upstream start of the project facing downstream post-planting



Downstream end of the project facing upstream



Construction lasted two weeks in the fall 2023 followed by a day of buffer planting in spring 2024

























STREAM STABILIZATION

Irondequoit Creek Watershed Streambank Stabilization

The District implemented a streambank stabilization project along a tributary to Irondequoit Creek in the Town of Pittsford in Fall of 2024.

This project was a partnership between the District, the Town of Pittsford, and several impacted landowners with cost-share funding provided through the Finger Lakes-Lake Ontario Watershed Protection Alliance (FL-LOWPA). Stabilization on this tributary was necessitated by a significant shift in the flow direction of the stream, resulting in increased erosion along a 20 foot high embankment and adjacent banks.

In total, **225 feet of streambank** was protected, including stabilization of **30 feet** of severe vertical embankment erosion, **85 feet** of channel realignment, and **55 feet** of bank stabilization along an eroded bank meander upstream where a culvert crossing and adjacent outfall were cleaned of sediments, as well. Once stabilization construction had finished, District staff installed an erosion control blanket along the embankment, seeded and mulched the riparian area, and installed **184 plantings** including live stakes, trees, and shrubs.



Reforestation in Response to Emerald Ash Borer Decimation

2024 marked the start of a three year reforestation initiative in response the decimation of our native ash canopies by the invasive emerald ash borer (EAB)(*Agrilus plannipenis*), an invasive beetle from Asia first detected in New York state in 2009. EAB spread across the state and decimated the state's ash tree populations. Monroe County is known to have some of the highest ash tree density in the state (30-100% density in parts). With this high density and large acreage loss of canopy, reforestation and mitigation against EAB is of upmost importance to restoring healthy forests to provide considerable benefits to Monroe County residents including cleaner air and drinking water, maintaining natural public lands for County residents and wildlife, erosion control along riparian corridors, and carbon sequestration .

2,400 trees in six county parks; Tinker Nature Park, planting 90 trees in the park; Village of Honeoye Falls, planting 30 trees in Rotary Park; Oatka Creek Watershed Committee, planting 126 trees on two public lands; and Rush Recreation & Park Association, planting 299 trees at Hundred Acre Park. In total, **2,945 trees were planted and 59 acres restored** in 2024.

This effort is being made possible in part through the Great Lakes Restoration Initiative (GLRI) Forest Restoration grant awarded to the District in the amount of \$200,000.



"USDA USFS is an equal opportunity provider"









Spotted Lanternfly Monitoring

This year the District expanded our early detection and monitoring project for the invasive spotted lanternfly (SLF). We partnered with SUNY Brockport, Monroe County Parks Department, the City of Rochester, the Towns of Chili, Clarkson, Gates, Greece, Hamlin, Henrietta, Penfield, Pittsford, and Sweden, and the Villages of East Rochester and Webster to install and monitor **35 traps** around the county, an increase from our 15 traps last year. This expansion was necessitated by the discovery of an established population of SLF found in the Town of Greece, the first population found in Monroe County.

SLF is an invasive pest from Asia that has caused huge economical damage in Pennsylvania and New York City and surrounding areas. Since the first arrival of SLF in August 2020 in Staten Island, populations have been found in multiple counties across the state, as well as many counties having confirmed presence of one or a few individuals. SLF feed on over 70 different plant species but most often target hops, grapes, and apples, resulting in both ecological and economical damage.



Traps are comprised of netting wrapped around the tree trunk funneling insects into a cone which further funnels SLF into a detachable bag or container. District staff collect the bags/containers throughout summer and fall, where they are then examined by District staff for SLF presence. Each trap was accompanied with an educational sign.

In 2024, two adults were found in one of our traps and were reported to the NYS Department of Agriculture & Markets. These findings show that SLF is spreading and that these monitoring traps are essential for

slowing this spread.

SLF nymphs on tree-of-heaven





Aquatic Invasive Species Prevention

For the seventh year, MCSWCD once again partnered with Monroe County Department of Environmental Services (DES) via funding received from the Finger Lakes-Lake Ontario Watershed Protection Alliance (FL-LOWPA) to provide a Watercraft Steward Program at the Port of Rochester on Lake Ontario and the Ayrault Road launch on the Erie Canal.

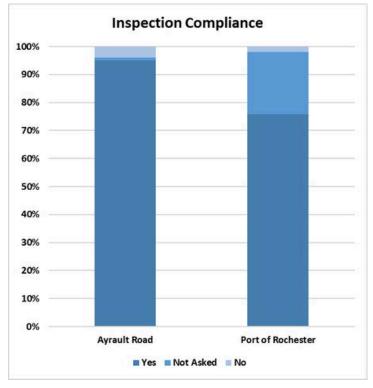
These boat stewards acts as the frontline of aquatic invasive species detection and education, directly working the public who use these waterways. The District collaborates with the Finger

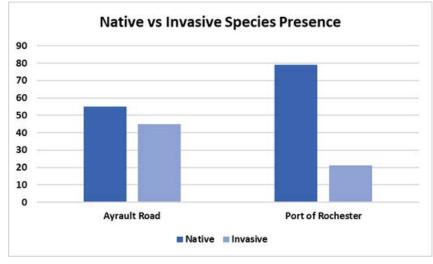
Lakes Institute through their Finger Lakes
Partnership for Regional Invasive Species
Management (FLPRISM) program to hire
stewards for these launches. This year, four
stewards were able to inspect **2,682** boats and
educate **5,092** people during the course of the
season.



Eurasian watermilfoil (Myriophyllum spicatum) was the most common invasive species found during inspection







STORMWATER MANAGEMENT

Stormwater Management Assistance

The Stormwater Coalition (SWC) was formed in 2000 and brings together 26 towns and villages, Monroe County, the City of Rochester and SUNY Brockport, to cooperatively comply with state and federal stormwater regulations to reduce stormwater pollution and protect water quality. Secondary benefits may



include a reduction in flood damage, economic development, improvements to fish and wildlife habitat, and recreation. As a long standing partner, the members have the ability to go to the District for any stormwater related technical, educational, and training requests.

In 2024, District staff received and responded to **192 technical assistance requests,** providing **1,329 hours of staff time** to the Stormwater Coalition of Monroe County. Many of these requests relate to stormwater management ponds, drainage, and erosion and sediment control.

Stormwater Management Training

4 attendees

The District hosted 13 stormwater related trainings and workshops in 2024.

A total of **758 people**, such as engineers, municipal officials, landowners and contractors received necessary training to improve planning, design, and construction practices to protect water quality throughout the county.

176 of these people were Monroe County municipal employees that are members of the Stormwater Coalition.



39 attendees

17 SWC members



Various trainings involving municipality members of the Stormwater Coalition

STORMWATER MANAGEMENT

Stormwater Pond Inspections & Education

In 2024, the District responded to a total of **40 pond-related assistance requests** including 36 stormwater management pond technical assistance requests, 3 landowner recreational pond

consults, and 1 pond feasibility request.

As part of the services provided to the SWC, the District responds to requests for assistance with managing stormwater ponds that were constructed during development to control stormwater runoff indefinitely. These ponds reduce pollutants and improve water quality, as well as reduce flooding and streambank erosion.

District staff inspected this pond after maintenance changed hands to the Homeowners Association surrounding it



Common problems found during site visits range from residents

mowing to the edge removing natural buffers and creating unstable banks to natural occurrences such as non-native aquatic invasive species taking over the pond. The staff work with the homeowners and the municipalities to provide recommendations to help alleviate these problems.

The staff also provide services to residents that are considering constructing a pond on their property for recreational purposes such as swimming and/or fishing. An evaluation of the most critical elements of pond feasibility are reviewed in detail including soil types, drainage area, and the topography of the site. Other planning considerations are assessed such as presence of wetlands, streams, depth, size, and shape all the way to construction factors for permitting, erosion and sediment control, and potential contractors.

Runoff & Erosion Control Technical Assistance



Staff investigating on a drainage

Staff responded to **25** requests for erosion control recommendations on residential and municipal property as well as on streams. On site, staff evaluate the severity of the erosion, possible causes, and discuss options for solutions to stabilize eroded areas with the landowner. Streambank erosion remediation typically involves a range of techniques using a combination of rock and plants that will improve bank stability and thus reduce erosion. Streambank erosion is a large source of sediment in our local

streams so stabilizing streams in our county is a priority.

20 landowners and/or municipalities were assisted with drainage and flooding concerns to analyze causes and provide effective solutions to managing excess water, preventing flooding, and protecting homes and infrastructure.

Wildlife Houses

In 2024, **32 bluebird and bat houses** were distributed to the public. Each year, as part of our wildlife programming, the District distributes wildlife housing for bluebirds and bats to county residents. These shelters provide safe spaces for nesting, breeding, raising young, and roosting, all of which are continually threatened by the continued loss of habitat for bluebirds and bats.



Fish Stocking Program

For over 50 years, the District has held a spring and fall Fish Stocking Program each year to assist Monroe County residents in stocking their ponds for recreational fishing or managing nuisance plants, fish, or insects. Since fish cannot be collected from the wild and stocked into another waterbody due to potential disease spreading, the MCSWCD offers fish from a licensed commercial fish hatchery to ensure fish being released are certified disease-free from harmful pathogens. 2024 was the final year this program was offered as our supplier scaled back their operation. Since the program's inception over **890 landowners** were assisted with stocking their ponds with **over 246,500 fish.**

In 2024, **3,160 fish fingerlings** were distributed to **22 landowners,** of which **69** were Triploid Grass Carp.











33% Carp

10% Minnows

12% Perch

24% Bass

21% Bluegill

Staff 2024

Board of Directors 2024

Kelly Emerick

Executive Director

Kristin White

Principal Office Account Clerk

James Sroka

Soil & Water Resource Technician

Jacob Kearney

Conservation Program Specialist



Congratulations to the Genesee Country Village & Museum (GCV&M) who received the Associate Member Award from the NYACD in 2024 in recognition of their strong support for repairing and restoring the riparian corridor along Oatka Creek in Monroe County! GCV&M has participated in several streambank stabilization projects as well as actively hosting and

attending education programming across the county.

Rollin Pickering

Chairman & New York Grange
Representative

Maureen Leupold

Vice Chair & Member at Large

Chuck Colby

Treasurer & Member at Large

Marc Krieger

Assistant Treasurer & Farm Bureau Representative

Steve Brew

Legislative Representative

Susan Hughes-Smith

Legislative Representative (Jan - Sept)

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

Monroe County Soil & Water Conservation District

145 Paul Road, Building 5 Rochester, NY 14624

Phone: (585) 753-7380

Email: mcswcd@monroecounty.gov



Find us on Facebook:
www.facebook.com/MonroeCountySWCD
Find us on Instagram:
www.instagram.com/monroecountyswcd_ny



Cover Photo: Completed streambank stabilization and riparian buffer along Black
Creek in the Village of Churchville



Black-eyed Susans fill a pollinator meadow in East Rochester installed by District staff



Programs and services offered through the MSWCD 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, martial status, sexual orientation, or disability.