





NIAGARA RIVER GREENWAY

YOUTH STEWARDSHIP PARTNERS

List of organizations who can provide guest speakers, resources, lesson topics and field trips.



Table of Contents

Organization / Speaker Description	Page
	Number
Buffalo Audubon Society Black	3
2. Black Rock Riverside Alliance	4
3. Buffalo Niagara Waterkeeper	5
4. Buffalo Sewer Authority	6
5. Citizens Campaign for the Environment: Brian Smith	7
6. Citizen Coalition for Wildlife & Environment	8
7. Citizen Science Community Resources: Jackie James	9
8. Erie County Climate Action	10
9. Eastern Monarch Butterfly Farm	11
10. New York State Department of Environmental Conservation	12
11. New York State Parks, Recreation and Historic Preservation	13
12. NY's Great Lakes Ecosystem Education Exchange	14
13. Pollinator Conservation Association: Jay Burney	15
14. WNY Land Conservancy	16
15. WNY PRISM	17
16. U.S. Army Corps of Engineers	18
17. U.S. Fish and Wildlife Services: Lower Great Lakes	19





Ornithology - Birding is a natural gateway to conservation. Students will learn how to properly identify common bird species by observing field marks and using field guides. They will also learn how their observations can be part of a worldwide upsurge in community science that can help environmental scientists.

Habitat Restoration - Students will participate in a hands-on, immersive session helping to remove invasive species from local habitats. Comparison studies will be made with former restoration sites.

Aquatic Ecology - Students will use an identification key to become familiar with several common aquatic macroinvertebrates and microinvertebrates found in local waterways. Using their findings, students will also calculate the biotic Water Quality Index (WQI) for the pond. Additional concepts covered are pond succession, trophic levels, and bioaccumulation.





Buffalo Audubon Society, established in 1909, is dedicated to the promotion of the appreciation and enjoyment of the natural world through education and stewardship. A regional, independent organization and chapter affiliate of National Audubon, we currently steward over 1,000 acres of land throughout Western New York, with our office headquarters located at Beaver Meadow Audubon Center in Wyoming County. We connect people to nature through delivery of educational programs for all ages and seek to engage participants as advocates and stewards for and of the natural world.

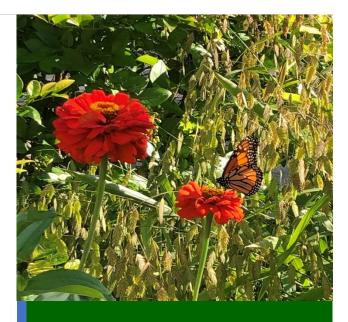
Education delivery and outdoor experiences at Beaver Meadow have been our historical foundation, yet Buffalo Audubon is also engaged in large scale conservation and habitat improvement projects in Niagara and Erie Counties, currently including invasive species management at Buckhorn Island State Park, and the construction of a 14,000 square foot island in the City of Buffalo's Niagara River Corridor for Common Tern habitat. These projects present long term opportunities to engage the public in meaningful community science efforts while increasing visibility. As Buffalo Audubon looks toward its future, we recognize and embrace the need to engage and represent new audiences while continuing to build on and celebrate the legacy of Beaver Meadow





BRRA has been working hard at making the City of Buffalo a National Wildlife Federation Community Habitat. It is official, the City of Buffalo is registered to become a certified National Wildlife Federation Community Habitat. An ambitious undertaking for a small organization but an important one for the future of our local environment and all that it influences. What started out as a small community project for the Black Rock/Riverside area of the city has spread to now include the entire City. When certified, Buffalo will be the only large, urban community in NY State to have such a designation (there are currently only two others and both have populations under 5,000 people). And Buffalo will rank #11 in population size certified communities in the country!

We need your help! Our environment needs your help! If you haven't already seen the National Wildlife Federation's easy to follow certification check list and walked through it to see how easy it is certify your yard, then download it today and get your yard certified. If you don't have a yard that will work, check out green spaces around your place of business, or your neighborhood, community gardens, and small pocket parks and certify them. It's quick and easy and every space certified goes toward our goal to certify the City of Buffalo as a habitat community. For more information on this project visit www.nwf.org/certify. BRRA is moving forward with this project by expanding it to include the entire counties of Erie and Niagara. They will be working hard to make these two counties certified as a National Wildlife Habitat. Visit their website, https://brralliance.org/, to find out more.



Black Rock Riverside Alliance has been working to grow their community since 2011. They are committed to the overall betterment of the Northwest neighborhoods of Buffalo New York. Born out of the good neighbor planning alliance initiative that was a community drive for revitalization their goal was to put the initiative identified in the plans into reality. Their work has continued in the form of Community Gardens, Habitat Development, Storefront Revitalization, creation of community spaces and multiple grants bringing resources and awareness to their communities.

Their goals are to:

- Revitalize and preserve these vibrant, historic communities.
- Improve the overall quality of life in these communities.
- Work towards the beautification of these neighborhoods.
- Bolster private economic development.
- Increase commercial desirability.
- Foster community involvement.





Buffalo Niagara Waterkeeper protects and restores our water and surrounding ecosystems for the benefit of current and future generations. We connect people to water. We inspire economic growth and community engagement.

For the past 30 years, Buffalo Niagara Waterkeeper has been the guardian of Western New York's fresh water. Our mission is four-fold: we PROTECT the water, we RESTORE both the waterways and the surrounding ecosystems, we CONNECT people to their waterways, and we INSPIRE both economic activity along the waterways and community engagement.

In the late 60s, the Buffalo River was officially declared dead. Fast forward to 1989, with not a lot of improvement, and Friends of the Buffalo River is formed. Our organization worked tirelessly for the last three decades, and many partners, to bring the Buffalo River back to life. It's a tremendous, largely untold story that played a large part in the city's resurgence and renaissance in recent years. The story of the Buffalo River is a tale of caution, determination, hope and resurgence, and our mission going forward is to work to achieve the same successes on other waterways, as well, in addition to protecting our headwaters throughout the watershed.



CLASSROOM LESSONS Bring our local waterways inside!
Buffalo Niagara Waterkeeper staff and volunteer
ambassadors can teach a variety of lessons in the classroom
to strengthen the connection and awareness of waterway
resources and issues. Lessons can be adapted to meet
student's grade level needs and include a hands-on activity
or props. Please look over the Presentations & Assemblies
list for other possible classroom opportunities.

- What's a Watershed? Learn what a watershed is, how water flows through it and what features form its boundaries. The concept of waterway pollution is also introduced. Recommended Grades: K-12
- **Stormwater & Sewage Pollution** Introduce students to the concept of stormwater runoff and ways to prevent water pollution in their community. Recommended Grades: 5-12
- *Invaders in our water* One of the most threating forms of pollution to biodiversity is biological. Learn how aquatic invasive species made their way into the Great Lakes Basin, how they are impacting water quality and biodiversity, and management strategies. Recommended Grades: 5-12
- *Eating Local Fish* Legacy pollution in local waterways has caused many species of fish to come unsafe to eat. Learn about the sources of pollution, how these toxins impact human health and best practices for eating local fish. Recommended Grades: 5-12
- *Plastic Pollution* Our local waterways are threatened by plastic pollution and other litter. Explore sources of this plastic pollution and learn how it is impacting waterway systems and aquatic life. Recommended Grades: 5-12
- *Climate Change in the Great Lakes* Climate change is impacting the planet in many ways. Explore the effects on the Great Lakes region. Recommended Grades: 5-12



Buffalo Sewer Authority protects public health and our local waterways from water pollution. We capture dirty water, treat it, and clean it so that it can be safely returned to our rivers and lakes.

Though the Great Lakes contain one-fifth of the world's fresh surface water, they are very fragile. These lakes are essentially glacial puddles – ones that receive only 1% of their volume in new inputs from annual rain and snowfall. This makes it all the more important that every community takes actions to preserve and protect our water.

Each year, Buffalo residents, businesses, and visitors use billions of gallons of water for drinking, food, cleaning, health care, industry use, and recreation. Before the creation of wastewater treatment systems, that water would all be directed to local waterways, which would pollute our water and spread disease. We protect our Great Lakes by collecting and cleaning:

- Sanitary water from toilets, portapotties and medical facilities
- Wash water from bathrooms, kitchens and laundry facilities
- Process and wastewater used by local factories and businesses
- Rain and snowfall from rooftops, parking lots, roadways, and lawn

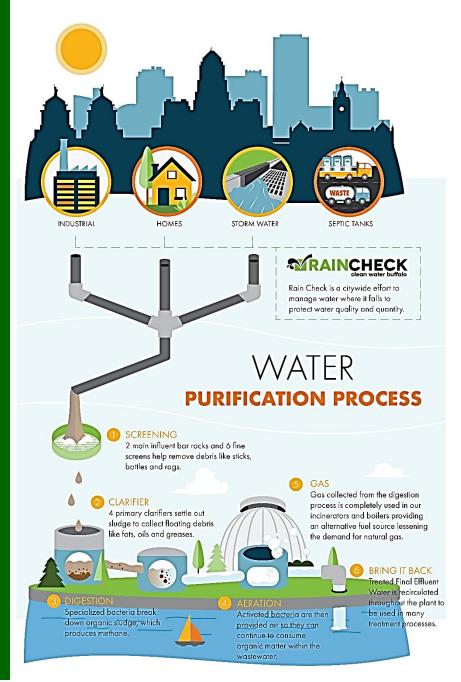
We do this using a combination of techniques:

- Traditional, "hard" engineering: pipes, tanks, and structures collect and carry wastewater to the treatment plant
- Innovative, "smart" approach: sensors and computers maximize the capacity of the city's sewer infrastructure
- Soft, "green" infrastructure: landscape techniques help hold and clean water where it falls

BUFFALO

SEWER AUTHORITY

The Buffalo Sewer Authority offers free, educational and entertaining tours of their facilities to students. The tour staff will provide your students with an engaging tour they will remember for a long time!





CITIZENS CAMPAIGN FOR THE ENVIRONMENT



Activism Climate and Energy Legislative Public Health and Toxics Water Protection

Citizens Campaign for the Environment (CCE) was formed in 1985 by a small group of concerned citizens who recognized the need to provide public involvement to advance stronger environmental policy. Today CCE has grown to a 120,000-member organization with offices in Farmingdale, NY, Albany NY, Syracuse, NY, Buffalo NY, and Hamden, CT. CCE continues to work to empower the public by providing members with opportunities to participate in the political process and thereby advance a strong environmental agenda.

CCE engages in extensive education, research, lobbying and public outreach. One of their primary goals is to help citizens increase their influence and participation in important environmental campaigns. Through such activism, the public has a stronger voice in the development of public policies and legislative agendas. Their achievements thought public involvement have resulted in greater awareness and protection of drinking water quality, preservation of open spaces, protection of beaches, bays, rivers and Great Lakes waters, advancing renewable energy and a reduction in pollutants that impair our air and water resources.





Brian Smith is the Associate Executive Director for Citizens Campaign for the Environment, where he has been an employee for over 20 years. Although CCE campaigns throughout New York State, Brian is located right here in Western New York and is passionate about helping our youth understand how they can have an impact on our environment. He has been a guest in many classrooms, to explain not only the current issues they are working on, but also to help teach kids how they can be effectively involved in environmental policies.

CCE's primary goal is to empower individual citizen's to have a stronger voice and greater influence in the development and implementation of public policies affecting our water, land, and air in the New York and Connecticut region. In order to achieve this goal they provide resources to help citizens take action where they live. These resources can be found at this link:

https://www.citizenscampaign.org/take-action





The Citizen Coalition for Wildlife & Environment aspire to be the voice of wildlife and the stewards of our environment. Through education and action we resolve to protect our ecosystems. We know that working to improve the environment and the lives of animals will improve our lives as well. We join together to encourage and enlist citizens in the practice and promotion of compassionate coexistence and the realization of a kind and compassionate world.

Being part of the Citizen Coalition for Wildlife and Environment means:

- Bringing together individuals, organizations and agencies for collective strength and action
- Staying informed on topics and actions that affect wildlife and the environment
- Receiving notices of educational events, meetings and trainings
- Being apprised of local, state and federal legislative actions and initiatives
- Advocating for protection of the environment and for compassionate coexistence with wildlife
- Being a member of a collective voice



Nicole Gerber and David Reilly founded the Citizen Coalition for Wildlife & Environment in 2016 as a non-profit organization. Nicole is a Program Manager at Roswell Park and Dave is a professor at Niagara University. Together with the coalitions' members they have worked hard to advocate for wildlife and the environment, by focusing on community awareness and education.

They have presented at schools, libraries and other community venues on various topics, including; Ecosystems as Communities; The Interdependency of Plants & Animals, How ecological gardening helps biodiversity, Reconnecting your yard with nature: coexisting with plants and animals, Animals, Plants, and You: How and Why to Make Your Backyard a Habitat.

They have tabled at multiple events, such as the Pollinator Conference, Elmwood Festival of the Arts, Birds on the Niagara, Erie County SPCA Wildlife Baby Shower, WNY Environmental Alliance and others.







Citizen Science Community Resources is a grassroots organization in Western New York dedicated to science-based activism for winning environmental health and justice campaigns. Teaching others through our example, we empower people to investigate their air, soil, or water and use the power of scientific data to create healthier communities and a more just society. Citizen science is the practice of public participation and collaboration in scientific research to increase scientific knowledge. We seek to educate, empower, and advocate.

Students as Citizen Scientists

Our youth education program gives K-12 students hands on experience gathering soil and air samples in the field. Students participants help to empower Western New York communities in protecting their environment.





Jackie James Creedon is the founder and Vice-Chair of Citizen Science Community Resources.

In 2005, Jackie and her neighbors founded the Clean Air Coalition of WNY and worked together to hold Tonawanda Coke and its environmental manager responsible for emitting benzene, particulate matter, and other dangerous chemicals into surrounding neighborhoods. Using community-based science, collaboration with government agencies, and a campaign of public pressure, community members achieved a 92% reduction of benzene (a known carcinogen) at Tonawanda Coke.

Additionally, the work of Jackie and her fellow citizens contributed directly to the company's 2013 conviction on fourteen counts of breaking environmental laws in U.S. district court which ultimately resulted in the plants closure in 2018.

In 2014, Jackie received the Environmental Quality Award from the EPA for her leadership and science-based activism in the fight against clean air violations at Tonawanda Coke. She holds a BS in Chemistry from SUNY Fredonia.



Erie County Climate Action is Erie County's green initiative to develop an equitycentered Community Climate Action Plan, to identify actions that can be taken to reduce greenhouse gas emissions, and help the community adapt to the changing climate. A major goal of action plan is to address the uneven negative impacts on historically disadvantaged and marginalized communities, as creating and implementing initiatives to help the most vulnerable residents will benefit the entire community.

Working groups, consisting of county staff and community stakeholders, have put together goals, strategies, and action items for community review. The focuses of the various working groups include:

Agriculture and Food Systems

Commercial Energy

Consumption & Waste

Economic & Workforce Development

Housing & Neighborhood Resiliency

Nature Based Solutions

Transportation

For more information, visit: https://www3.erie.gov/climateaction/





Erie County Climate Action offers several opportunities for community members to get involved, including a social media toolkit to build awareness and participation, a community survey gathering information on local, community-level impacts of climate change, meeting with the Erie County Dept. of Environment & Planning Sustainability Team to discuss questions and ideas or schedule a presentation at a community event, and finally the Erie County Climate Ambassador Program.

Climate Action Ambassadors have the opportunity to have conversations and share input on how their community can be healthy, sustainable, and resilient. Ambassadors gain knowledge to engage with their communities on topics such as climate change, equity, renewable energy, clean transportation, and more to help develop an equity-centered climate action plan. Ambassadors can be any age or occupation, and the time commitment is flexible according to your schedule and interests.

Community Climate Action Plan - Timeline



CLIMATE CHANGE

It's happening. It's local.

What is Erie County doing about it? www.erie.gov/climateaction



The mission of the Eastern Monarch Butterfly Farm is to actively campaigning for awareness to conditions that are detrimental to the environment, other pollinators, wildlife and indigenous plant species. They sincerely, want people to succeed with their ambitions to create an environment conducive not only to Monarch Butterfly recovery; but also to a sustainable environment; beneficial to all native insects, wildlife and nature in general. They facilitate these efforts by providing educational experiences for students and families, and making native milkweed seeds available for purchase. Planting native plants from localized environments provide habitat that our pollinators and wildlife identify with. Providing more exact growing stages and bloom times, local native plants are more reliable and have adapted to our unique micro climates that our wildlife have come to depend upon.





Eastern Monarch Butterfly Farm is a self-funding organization dedicated to increasing the Monarch population. Through restoring and replacing indigenous natural habitat, releasing healthy butterflies and conducting educational presentation; together we are making a difference. They are located in Western New York and all of their butterflies are released here in NY. We believe the iconic Monarch Butterfly is a messenger and its rapid decline is the message; coexist with that which enables us to exist.

Their goal is to inspire people to contribute in preserving, conserving, and restoring indigenous habitat starting with their own properties. They will gladly answer any questions or provide assistance with planting pollinator habitat.

Funds generated through the sales of native plants, seeds and other Monarch butterfly related items go directly to our habitat/ butterfly recover efforts.









The Day in the Life of the Niagara River/Lake Erie Watershed program supports teachers and students through the four steps of a Meaningful Watershed Educational Experience (MWEE).

Step 1: Issue Definition: Educator workshops are offered throughout the year to share standards-based curricular and background information on the Great Lakes and local watersheds.

Step 2: Field Experiences: Reinstein Woods organizes the annual "Day in the Life" field experience every October in which hundreds of students work with local environmental professionals to collect water quality data throughout the watershed. Water quality sampling equipment is available to borrow throughout the school year.

Step 3: Synthesis and Conclusions: Reinstein Woods compiles water quality data and provides guidance on using data for classroom analysis.

Step 4: Stewardship Actions: Educators can borrow stewardship equipment for invasive species removal, native plant propagation, and clean-ups.

Click here for more information: https://reinsteinwoods.org/explore/ programs-services/dayinthelife/





The New York State Department of Environmental Conservation, in partnership with the non-profit Friends of Reinstein Woods, operates Reinstein Woods Environmental Education Center in Cheektowaga. We invite teachers to explore all of the <u>virtual, in-school, and field trip options</u> that we offer, as well as <u>professional development</u> opportunities.

Reinstein Woods Staff will bring nature to your classroom through exciting standards-based virtual or in-person programs. Topics range from habitat explorations to skull science to watersheds. <u>Online resources</u> provide lesson plan overviews, correlations to NYS learning standards and postvisit activities.

Classes can explore Reinstein Woods' ponds and forests on a visit to our unique 292- nature preserve. Guided lessons invite students to engage in hands-on learning.

Reinstein Woods is committed to helping teachers incorporate the environment into their classroom. Trained educators share nationally recognized, standards-based curricula in workshops that help teachers better understand their own local environment. Teachers become comfortable using place-based education methods to make their students more college and career ready. These interdisciplinary programs are targeted at Pre-K through high school teachers. Workshops and schoolyard habitat consultations also can be done at an individual school upon request.

For more information on all of these services, visit: https://reinsteinwoods.org/explore/programs-services/school-programs/.





The Niagara Region Parks Interpretive Program's instructional team will provide in class, in parks, and virtual lessons and activities on topics such as nature in winter, the challenges of invasive plants, Japanese fish printing, and STEM presentations. They also provide recreational programs with an environmental or historical theme.

The Parks Interpretive office works with the Connect Kids Program to help bring students to our state parks for hands on learning. Connects students attending New York State primary and secondary public schools with nature and history.

Reimbursement of up to \$1,000 for field trips to state and federal parks, historic sites, fish hatcheries and other outdoor recreation areas. https://bit.ly/NYConnectKids





Niagara Region Parks Interpretive

Programs' mission is to educate the public about our natural resources and the natural history of the Niagara Region. Offering environmental education programs and historical programs throughout Western New York. Every quarter a new list of programs and events are published for the public.

The Parks Interpretive office is located at Deveaux Woods State Park but provides programming throughout the region. The office also houses the Great Lakes: Ecosystem Education Exchange Basin Bins. The Basin Bins are filled with hands-on resources for teachers and educators to use in teaching about the Great Lakes ecosystem and environment. It includes worksheets, activities and other materials to share environmentally-sound information about the Great Lakes with students via classroom, organization, or club. All materials are free of charge and do not need to be replaced by the teacher or school. Basin Bins can be borrowed for up to two weeks from the Parks Interpretive office. More information visit NY's Great Lakes: Ecosystem Education Exchange Basin Bins https://bit.ly/GLBasinBins.





New York Sea Grant (NYSG) is a joint program of the State University of New York and Cornell University, with an office at University at Buffalo. NYSG offers a variety of educational resources, professional development opportunities, and direct programming for your classroom.

Great Lakes curriculum:

<u>Plastic Pollution & You</u>: 15-lessons, grades 3-12, focused on the threat of plastic pollution to New York's marine and freshwater aquatic ecosystems.

<u>Lake Sturgeon Intermediate Curriculum</u>: 10-lessons, grades 4-6, focused on lake sturgeon, the Great Lakes' largest and longest-living native fishes.

<u>Educational Resources and Kits</u>: available for loan from NYSG Buffalo Office

Great Lakes Ecosystem Education Exchange Basin Bins

Center for Great Lakes Literacy (CGLL)

- <u>Fish-o-Pedia</u>- life size vinyl cutouts of 20 native and invasive fish in the Great Lakes, factsheets, and classroom guide.
- Attack Pack aquatic invasive species (AIS) preserved specimens, fact sheets and a classroom guide.
- Trash Trunk educator guide with 14 lessons and activities, display cards and supporting materials focused on marine debris and its impacts.

<u>Classroom Visits</u>: NYSG staff and partners can present on a range of Great Lakes topics, including fisheries, coastal resilience, and other important issues.



Together, NYSG and the New York State
Department of Environmental Conservation
coordinate New York's Great Lakes Ecosystem
Education Exchange. GLEEE partners with
teachers, educators, and students in the Great
Lakes Watershed to encourage stewardship on
the Great Lakes and develop experiential
learning curriculum focused on the Great Lakes
Literacy Principles. To accomplish this, GLEEE
offers:

- Professional Development
 Opportunities and Teacher Workshops
- Online Great Lakes Curriculum Clearinghouse
- Loanable Resources for Classrooms and Programs like the Basin Bins

For more details, visit www.nvseagrant.org/glee



<u>Professional Development Opportunities</u>: NYSG offers workshops, webinars, and online courses for teachers and educators to increase their Great Lakes literacy and support their efforts to integrate place-based learning. For more information, visit on upcoming events, please contact NYSG at SGbuffal@cornell.edu





Jay Burney is the Special Projects
Director, Pollinator Conservation
Association; US Chair of the Birds on
Niagara Festival; Advocacy Chair, Western
New York Environmental Alliance; Cofounder of the Our Outer Harbor Coalition
and the Friends of Times Beach Nature
Preserve.

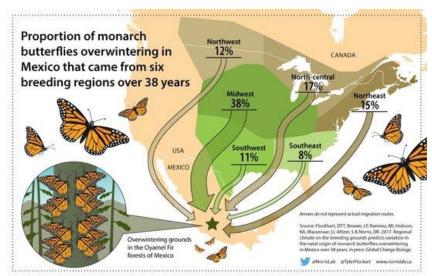
In 2018, the PCA partnered with the Niagara River Greenway to create the Greenway Pollinator Partnership. The International Niagara River Corridor linking Lake Erie with Lake Ontario is a Globally Significant Important Bird Area (IBA) and a Ramsar Wetland of International Importance. The IBA and Ramsar designation helps to characterize the region on a conservation level similar to the Galapagos, Yellowstone, and the Everglades relative to abundance, variety, and threats to birds species.

At his farm in Chaffee, New York Mr. Burney created one of the regions first pollinator conservation areas. In addition to many other positions he has held, he has also written and published numerous articles and created multi-media products



Our Great Lakes region has important connections to pollinator conservation needs. For example, the story of the discovery of the wintering areas for the Monarch Butterfly goes through the Niagara River corridor as Canadian researchers tracked butterflies released in Ontario on their way to the small mountainous area in Mexico where they overwinter. New studies show that Monarch populations including more than 12 percent of overwintering Mexican Monarchs come from the Great Lakes. The rapid monarch decline over the past few years is dramatic and has caused the Monarch butterfly to be considered for Endangered Species protection. Our region's native ecology is suffering due to pollinator decline. Familiar species such as the Monarch Butterfly, the Nine-spotted Ladybug, and the American Bumblebee have all but vanished. This makes the restoration of the Niagara River Greenway very dependent upon pollinator conservation strategies.

The <u>Pollinator Conservation Association</u> is a not for profit that advocates for/raises awareness about, and provides consultation, evaluation and design, installation, and management and maintenance plans for sites.







The Western New York Land Conservancy is an accredited regional not-for-profit 501 (c) 3 land trust that works with landowners, municipalities, and other organizations to help them conserve their most cherished natural areas and working farms.

From the Appalachian foothills to the south, to the shores of two of North America's Great Lakes, and over one of Earth's greatest natural wonders, Niagara Falls, Western New York is one of the most fascinating and bountiful natural places in the entire world. Forests, meadows, lakes, streams, farms, orchards, and vineyards abound. The region is witness to the dramatic changes of all four seasons, great migrations of fish and wildlife, and harvests that have sustained people for many millennia. We are all the stewards of this immense natural wealth. Like the many visionary people who protected some of these places in the past for us to enjoy today, the Western New York Land Conservancy is working to protect the remaining special places for the next 100 generations.

They protect land through the use of conservation easements, property acquisitions, and by assisting transactions between other parties. Founded in 1991, they have helped protect more than 7,000 acres of land on more than 80 properties throughout Western New York.





Teresa's passion for conservation began with hiking and exploring the natural areas of Western New York at a young age. She holds a BS in Environmental Studies from the University at Buffalo and a BA in Public Communications from SUNY Buffalo State College. She has a background in education and naturalist work through many local organizations including Cornell Cooperative Extension, Reinstein Woods Nature Preserve, and Earth Spirit.

In 2022 Teresa served as a project manager for an ecological company based out of Western Massachusetts where her work focused on ecological restoration, invasive plant management, and easement monitoring. During this time she became a Certified Ecological Practitioner in Training through the Society of Ecological Restoration.

Teresa considers community engagement and environmental education to be the basis of conservation work so that all can understand the importance of conserving our natural and agricultural areas. She is excited to return to Western New York to work with the Land Conservancy on the continued conservation of the local area.





Partnering to Protect Western New York From Invasive Species

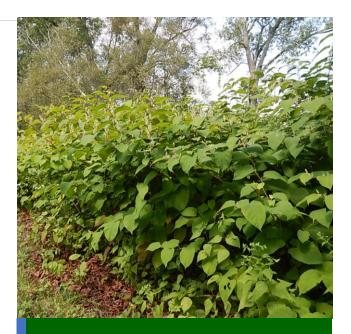
WNY PRISM is dedicated to helping prevent and minimize the damage caused by invasive species, non-native species that cause harm to the environment, economy or human health. Education is one of the tools we use to fulfill this mission and WNY PRISM is excited to work with educators of all kinds to help spread information about invasive species in western New York.

Resources – WNY PRISM offers a variety of resources to educators interested in bringing invasive species into the classroom. Our lending library is available to all to borrow and return invasive species posters, specimens and even an emerald ash borer costume!

Teacher Trainings – WNY PRISM is available to offer trainings to groups of teachers and other educators about invasive species and offer the tools they need to teach their own students. Bring plant ID, citizen science, technology and much more into your lessons with invasive species!

Field Trips –WNY PRISM is available to join your class in the field to talk about or manage invasive species, after all the best place to learn about invasive species is right alongside them. WNY PRISM will teach them about invasive species, the harm they cause and actions that anyone and everyone can take to help prevent their spread.





WNY PRISM (Partnership for Regional Invasive Species Management) is one of 8 regional partnerships in New York State created to help prevent or minimize the harm caused by invasive species.

This harm is felt around the world as invasive species contribute to plant and animal extinctions, cause damages estimated at \$120 billion each year in the U.S. alone and disrupt the ecological processes we as humans need to survive.

WNY PRISM has worked since 2014 to prevent and minimize these damages in western New York by educating over 65,000 WNY residents, performing over 20,000 voluntary watercraft inspections for aquatic invasive species, leading surveys for important early detection species and managing invasive species on over 50 projects that protect our most important ecological and recreation resources.





US Army Corps of Engineers®

Buffalo District

Opportunities to Educate:

The U.S. Army Corps of Engineers Buffalo District covers 38,000 square miles from Massena, NY to Toledo, OH. Part of the Great Lakes and Ohio River Division, the District employs over 300 people across seven offices.

The Buffalo District maintains a portion of the Great Lakes harbors, including 100 miles of federal navigation channels; 35 miles of breakwaters, piers and jetties; and operation and maintenance of the Black Rock Lock. Buffalo District was also responsible for the design and construction of the U.S. portion of the St. Lawrence Seaway, including the Eisenhower and Snell locks.

The District operates and maintains Mount Morris Dam and Recreation Area, the largest "dry" concrete gravity dam east of the Mississippi River. Since its completion in 1952, the dam has prevented over \$4 billion dollars of flood damages to the City of Rochester and the Genesee Valley. These are just some of the important projects our employees impact daily.

USACE offers active internships that bring students into the field to see direct applications from their studies. They are excited to inspire the next generation of scientists and engineers towards public work!

Learn more at: https://www.lrd.usace.army.mil/About/Districts/Buffalo-District/





The US Army Corps of Engineers (USACE) Buffalo District delivers world class engineering solutions to the Great Lakes Region, the Army, and the Nation to ensure environmental sustainability and water resource management. They are the civil engineering and environmental restoration firm of the government, with no requirement to enlist.

In 2020, the U.S. Army Corps of Engineers (USACE) ranked number two among government agencies to work for. The jobs they do supporting civil works – navigation, flood risk management, ecosystem restoration and infrastructure, recreation and natural resource management, and water supply - are a foundational component of the local infrastructure that facilitates economic growth, quality of life, and environmental health for the community we are a part of.

USACE values diversity of perspectives, backgrounds, cultures and skills to build an inclusive work environment where everyone can contribute to their fullest potential. USACE offers a team-inspiring and collaborative work environment, with challenging and rewarding careers across a variety of disciplines. They rely on leaders with vision, creativity, and programmatic and technical expertise to lead us into the future. Align your talents with your passion and find out why the U. S. Army Corps of Engineers is a great place to work!



The Lower Great Lakes Fish and Wildlife Conservation Office is part of a network of field stations located throughout the nation that works to conserve fish and aquatic resources. Biologists from Alaska to the Florida Keys restore native species, protect imperiled species and their habitats, and monitor and control invasive species.

Research shows us that outreach and environmental education has a host of benefits for children, schools, and our families. Just a few of these include: enhancing creativity, imagination and critical thinking skills; helping students make connections between the classroom and the real world; and developing an appreciation and respect for the environment while promoting healthy lifestyles and strengthening communities.

The outreach and education program seeks to educate, inform, and improve the public's awareness to promote a better understanding of the role each of us plays in the environment. The program offers presentations to area schools, scout troops, youth organizations and



Studies have demonstrated that "nature smart" children perform better on standardized tests and become more resourceful and better problem solvers as a result of the hands-on learning that our natural environment demands of us. Schoolyard Habitats not only benefit wildlife, they also get children in touch with nature. This program provides an interactive opportunity to teach children about nature and how they can help take care of it. The staff works with the school to design and establish natural habitats on school grounds using native plants to benefit wildlife. These habitats can be pollinator gardens, bird gardens, forests, rain gardens, ponds or meadows. Habitat type is dependent on soil type, shade, location, space, and the needs of the school. They are designed to not only provide food and refuge for wildlife, but to serve as a place of learning for children, as part of curriculum. Through **SNAP**, staff works with small groups of students, teaching students techniques for successful nature photography and providing ecology lessons. At the end of the program, students select their favorite

photo and write a brief statement about it, describing the inspirational meaning the image has for them. For more information,



visit: https://www.fws.gov/office/lower-great-lakes-fish-and-wildlife-conservation

