FLLOWPA Fundamentals

Finger Lakes - Lake Ontario Watershed protection Alliance
From Streams, To Lakes, To Great Lakes
Protecting Our Water Resources Beginning at the Local Level

In This Issue:

This edition of the newsletter highlights successful Invasive Species Control, Management and Eradication Programs, in addition to projects to address and comply with the Stormwater Phase II Regulations.

Summer 2020

Mission

The mission of the Finger Lakes Lake Ontario Watershed Protection Alliance is to facilitate processes that encourage watershed partnerships and implementation of action plans to protect and enhance water quality based on:

- Local needs assessment
- Holistic approach
- Information exchange and public education
- Measurable goals and milestones

Invasive Species Control

Invasive species are non-native species that can cause harm to the environment, the economy and/or human health. Invasive species come from around the world and are one of the greatest threats to New York's biodiversity by causing or contributing to habitat degradation and loss, loss of native fish and wildlife, loss of recreational opportunities and income, crop damages, diseases in humans and livestock, and risks to public safety. The DEC's Bureau of Invasive Species and Ecosystem Health works with numerous stakeholders including State and Federal agencies, non-government groups, industry and the Partnerships for Regional Invasive Species Management to combat the impacts of invasive species. To control, manage and eradicate invasive species throughout the Finger Lakes – Lake Ontario drainage basin over the past twenty-five years, FLLOWPA funds have been used to:

- Remove over 112,450 tons of invasive aquatic vegetation in the Finger Lakes, Fulton Chain of Lakes, Lake Ontario Embayments, Oneida Lake/Three Rivers Area, Madison County Reservoirs, and Tully Lakes; and
- Support staff that devote an average of 15,066 man hours per year to invasive species programming.

Cayuga County

Invasive species disposal station in Cayuga County.
Photo credit: M. Wunderlich

FLLOWPA funding allowed for the construction and installation of twelve invasive species disposal stations at boat launches in Cayuga County. These disposal stations will help to combat the introduction and spread of invasive aquatic species from one waterbody to another by providing a convenient place for anglers and boaters to dispose of aquatic vegetation clinging to their fishing and boating equipment. The stations also serve as a billboard encouraging users to carefully inspect their equipment and remove and properly dispose of any invasives found. These simple actions are the most effective way to combat the spread of invasives from waterbody to waterbody.

The cost of building and installing twelve invasive species disposal stations was approximately $9,000. FLLOWPA provided $7,500 which funded materials, signage, equipment usage and staff time. Cayuga County SWCD provided $1,015 of donated equipment time and almost $360 of donated staff time. The NYSDEC donated three sets of signs valued at $130. The Villages of Cayuga, Union Springs, and Fairhaven as well as the Sterling Nature Center, Cayuga County Parks and Trails, Owasco Marine and the Owasco Yacht Club donated space for the disposal stations and provide staff to maintain them.

Cortland County

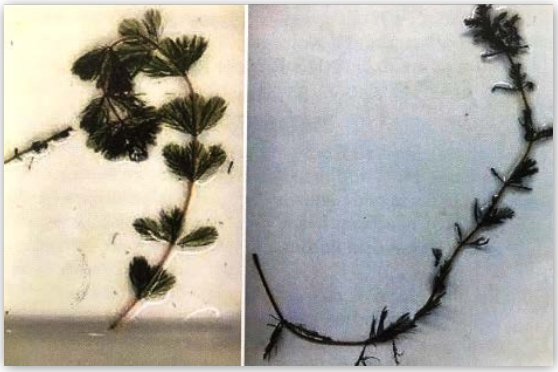
In 2016, FLLOWPA funds ($6,000) supported mechanical harvesting of aquatic vegetation in Little York Lake, located in the Towns of Homer and Preble, Cortland County. This is part of an ongoing effort to manage nuisance aquatic vegetation to improve aesthetics and recreational opportunities, in addition to removing nutrients from the lake. Historically, Eurasian watermilfoil was the main problem in the lake, but in recent years variable leaf milfoil has begun to take over and threatens to have an even greater adverse impact on the lake. In 2016, over 100 tons of vegetation was harvested and transported to a nearby organic farm to be composted.

Over 112,450 tons of invasive aquatic vegetation have been removed in the FLLOWPA region.

Madison County

Photo credit: Madison County

Madison County has had a longstanding project with SUNY Oneonta, SUNY Cobleskill, and Cornell University to monitor and evaluate herbivorous insect impacts on Eurasian watermilfoil growth. These efforts support a plan, developed in conjunction with NYS DEC fisheries staff, to stock large numbers of walleye fingerlings to suppress bluegill populations because the bluegills feed upon the herbivorous insects that are intended to serve as a biological control agent for the milfoil. The damage, although not an eradication mechanism, severely curtails milfoil growth and can mitigate the effects of milfoil in the lake. This project has been made possible through the contributions of FLLOWPA (~$85,000) and the DeRuyter Lake Association and Foundation (~$35,000) which pay for the research effort and stocking program on an annual basis.



Healthy milfoil stem (left) and a badly damaged stem after predation by herbivorous insects (right).
Photo credit: Madison County

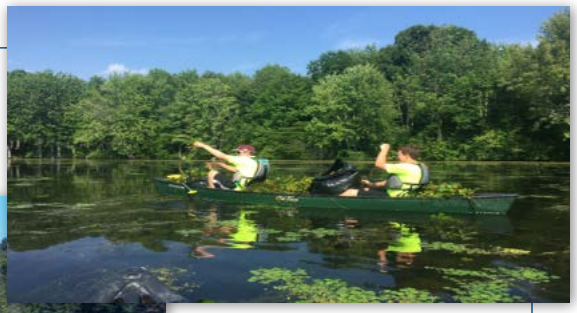
Onondaga County

Several grants including FLLOWPA Special Projects Funds were used for chemical treatment of water chestnut and for a Water Lily Restoration Project near Jack's Reef, which is the westernmost extent of water chestnut presence in Onondaga County. Citizen volunteers participated in the planting with assistance provided by the Onondaga County Health Department, Cornell Cooperative Extension of Onondaga County and the Oswego County Soil Water Conservation District.

Post water chestnut chemical treatment water lily restoration project.
Photo credit: Onondaga County DOH

Staff devote an average of 15,066 man hours per year to invasive species programming in the FLLOWPA region.

Oswego County



Chemical treatment and hand pulling of water chestnut in the Oswego River. *Photo credit: Oswego County SWCD*

The Oswego County SWCD has implemented several different types of control efforts for the removal of water chestnut in the Oswego River and other water bodies throughout Oswego County. Five college interns worked during the summer months to remove water chestnut by hand, physically removing over 3.5 tons of plant material from areas that were not dense enough to require chemical treatment. Additionally, herbicides were applied in the Oswego River and Ox Creek to eradicate approximately 80 acres of water chestnut. This program utilized over $34,825 in FLLOWPA funds, along with $34,050 in state funds from Senator Patty Ritchie, and $80,000 in GLRI funds in 2016 alone.

Seneca County

Photo credit: Seneca County SWCD

The Seneca County Soil and Water Conservation District operates two aquatic plant harvesters on Cayuga Lake, Seneca Lake and the Cayuga Seneca Canal with help from FLLOWPA funding. The program costs $35,000 to $40,000 annually and, in most years, removes 800 to 1,000 tons of aquatic vegetation from Seneca County waterways. The District has operated aquatic plant harvesters since the mid-1980's and sends the plant material to nearby farms to be composted.

Wayne County

Photo credit: Wayne County SWCD

Wayne County utilized FLLOWPA funding to address invasive species management through community awareness hand pulling events, mechanical harvesting, and water quality sampling and monitoring. Invasive species control is very important because of the devastating impact aquatic invasive species can have on the local economy due to the degradation of the water quality. The Wayne County Water Quality Coordinating Committee began utilizing the partnership with FLLOWPA to leverage larger funding streams from EPA and the Federal Government. From 1987 to 1997, the program grew from one harvester to three harvesters which now manage four of the six embayments along the 75 miles stretch of Lake Ontario shoreline in Wayne County. On average, over 1,500 tons of material have been removed from the embayments over the last 30 years between the mechanical control and the community events of hand pulling efforts. That totals 45,000 tons of material or 90,000,000 pounds removed.

Yates County

Photo credit: Yates County SWCD

In 2009 water chestnut was found in the thirty-acre marsh adjacent to the Keuka Lake outlet and shortly after it was discovered in the West River wetland system, a tributary to Canandaigua Lake. A compliment of partners including the Keuka Lake Association, Cornell Cooperative Extension of Yates County, Ontario County Soil and Water Conservation District, Keuka College, Finger Lakes Community College, the Finger Lakes Institute, a private contractor and numerous volunteers have been actively hand harvesting water chestnut plants to reduce populations and control future seed sources. FLLOWPA funds have provided approximately $21,000 in technical staff time that has been matched with $12,000 in volunteer labor, $3,500 in matching grant funds and $14,700 in local cash support to cover airboat contractor costs. Over the life of the program there has been a reduction of over 50% in the amount of plants present due to the collection and elimination of the seed source through hand pulling.

Phase II Storm Water Regulation Compliance

Stormwater is water from rain or melting snow that does not soak into the ground but runs off into waterways. As it flows, it collects and transports pollutants such as phosphorus, nitrogen, bacterial wastes, automotive oil and grease, sediment, pesticides, herbicides, and fertilizers. These contaminants threaten the quality of our lakes, rivers, streams and wetlands.

In 1990, the Environmental Protection Agency developed Phase I of the Storm Water Program based on amendments to the 1987 Clean Water Act. In 2003, the NYS DEC released two new permits to address stormwater discharges from small municipal separate storm sewer systems (MS4s) and construction sites disturbing greater than one acre but less than five acres of land as part of the Stormwater Phase II Program based on the Stormwater Phase II Final Rule.

Since 2003, this program has impacted many communities throughout the Finger Lakes – Lake Ontario drainage basin and FLLOWPA funds have been used for stormwater management practice implementation and education including:

- Providing technical assistance to more than 120 MS4 communities preparing mandated storm water management plans;
- Conducting 260 storm water workshops, serving over 12,800 stakeholders;
- Conducting almost 5,000 site visits; and
- Performing nearly 750 consultations with contractors, developers, or private parties and 1,000 consultations with municipalities.

Photo credit: Niagara County SWCD

Chemung County

In 2010, the Chemung County Soil and Water Conservation District completed a stormwater demonstration area to help educate the public on the importance of reducing stormwater runoff and pollutants from entering local water bodies.

The total project cost was $8,000 of which FLLOWPA contributed $3,800 and local sources contributed the rest.

Photo credit: Chemung County SWCD

Hamilton County

The Hamilton County Soil and Water Conservation District completed the installation of green infrastructure demonstration projects at their Lake Pleasant office including a rain garden, a bioswale and two rain barrels in the summer of 2015. Local homeowners and municipalities have the opportunity to see the benefits of stormwater pollution prevention practices.

Tour of Hamilton County
Green Infrastructure Projects.
Photo credit: Hamilton County SWCD

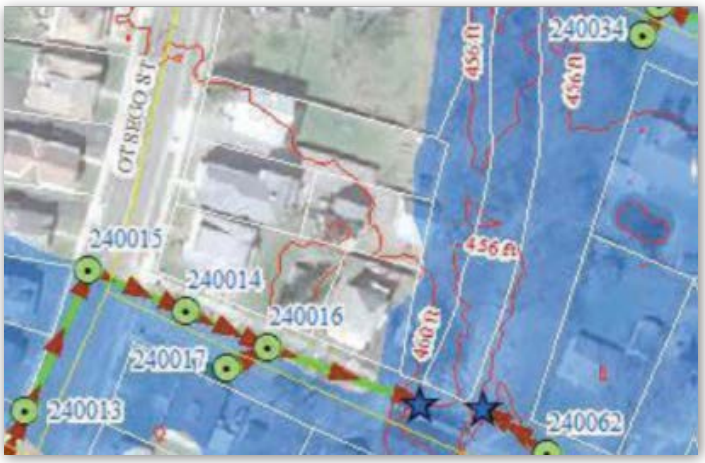
These green infrastructure projects were not only installed to protect water quality and quantity, but to demonstrate to the public that rain gardens, bioswales and rain barrels can be efficiently and inexpensively utilized to prevent stormwater pollution. The goal of these projects is to go beyond demonstration, and encourage communities to take action and install green infrastructure. People can watch the District's Green Infrastructure Demonstration Project video by visiting the website, Facebook, or You Tube pages. The video highlights the installation process, has great interviews with stormwater professional Beth Gillis, and shows off the pollinator and vegetable gardens that were nurtured with water harvested in rain barrels.

FLLOWPA contributed $2,000 towards this project, while the New York State Pollution Prevention Institute Community Grants Program provided $14,968, the District provided $3,000, the Lake Champlain – Lake George Regional Planning Board contributed $1,000, and the Hamilton County Highway Department contributed $1,000.

FLLOWPA funding provides technical assistance, educational workshops, site visits and consultations.

Herkimer County

The Herkimer County Water Quality Coordinating Committee (HC WQCC) uses a portion of FLLOWPA funding to partner with various municipalities and the Herkimer-Oneida Counties Comprehensive Planning Program to locate and map municipal infrastructure systems including storm sewer systems and sanitary sewer systems. Municipalities are required to provide a minimum 25% local share as a match for FLLOWPA funds.



Village of Ilion Infrastructure map.
Photo credit: Herkimer County SWCD

Stormwater sewer systems have been mapped in the Villages of Ilion and Mohawk. Using a standardized analysis process that includes flow modeling, watershed basin analysis, and surface modeling, the municipalities were provided with a comprehensive inventory of their storm sewer systems which helps to detect illicit discharges and maintenance needs. System features such as outfalls, manholes, catch basins and sewersheds were collected using high accuracy Trimble GPS equipment. Attribute condition assessments were also completed for each feature to provide highly detailed information which can be used for planning, maintenance, and design work. The Village of Ilion received $11,250 in FLLOWPA funds and contributed an additional $3,750; while the Village of Mohawk received $18,750 from FLLOWPA and provided an additional $11,250 to obtain maps of their municipal infrastructure systems.

Oneida County

Using FLLOWPA funding, Oneida County Soil and Water Conservation District staff and local partners have conducted and/or participated in more than 30 workshops in the past 20 years targeted towards contractors to increase the awareness of impacts of sediment transport from construction activities. These workshops have also helped landowners and municipal leaders to make informed decisions about stormwater management and land use development.

Photo credit: Oneida County SWCD

Collectively serving 12,800 stakeholders through 260 storm water workshops.

Fundamentals

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FLLOWPA membership includes the following
New York State counties wholly or partially in the Lake Ontario Drainage basin:

Allegany, Cayuga, Chemung, Cortland, Genesee, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Niagara, Oneida, Onondaga, Ontario, Orleans, Oswego, Schuyler, Seneca, Steuben, Tompkins, Wayne, Wyoming, Yates

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