

# FL-LOWPA

## FUNDAMENTALS

FROM STREAMS, TO LAKES, TO GREAT LAKES  
PROTECTING OUR WATER RESOURCES BEGINNING AT THE LOCAL LEVEL

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Activities occurring in fields, on hillsides and even mountaintops, will eventually affect the streams and lakes into which water flows. Clean water is so vitally important for consumption, wildlife health and habitats, recreation, and even the economy!

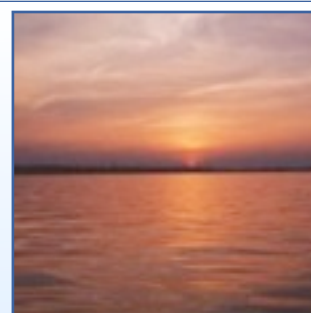
Since its inception, the Finger Lakes-Lake Ontario Watershed Protection Alliance (FL-LOWPA) has addressed water quality problems, identified solutions, and completed projects at the local level to keep the watersheds in New York's Lake Ontario drainage basin clean. FL-LOWPA is an alliance of 25 counties, represented by County Health Departments and County Planning Departments, Soil and Water Conservation Districts, Environmental Management Councils, and Water Quality Management Agencies. Through the sharing of information, data, and ideas, FL-LOWPA has accomplished much throughout its existence.

A majority of FL-LOWPA's funding comes from an annual appropriation in New York State's Environmental Protection Fund (EPF), administered by the New York State Department of Environmental Conservation Division of Water (NYS DEC DOW). From 2000 through 2008, \$13.8 million in State funding was allocated to FL-LOWPA. Less than 4% of these funds were used for administration of the organization – that means 96% was used for the actual, on the ground projects. An additional \$16 million was leveraged through local match, including landowner contributions, and in-kind services to stretch program dollars much further and have a greater impact on the Lake Ontario drainage basin. FL-LOWPA projects and programs have involved more than 175 partners including representatives from federal and state agencies, local elected officials, landowners and concerned citizens. FL-LOWPA is the epitome of an efficient and effective program that cross cuts political, jurisdictional and watershed boundaries to benefit the Lake Ontario drainage basin.

#### - 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

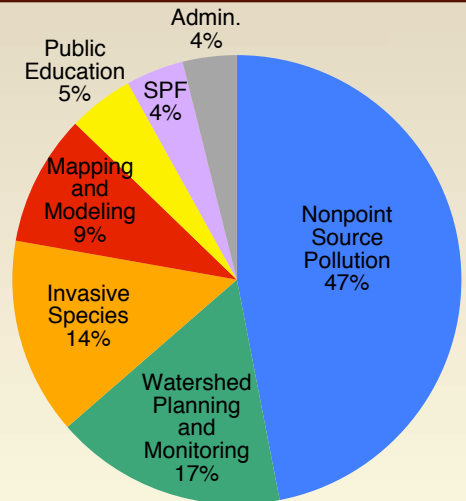


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## Projects and Work Plans

*Each member county develops an annual work plan which is reviewed by the NYS DEC DOW and Regional Water Engineers to be sure it is technically sound and in line with the State's water quality priority objectives. Individual county projects are based on local needs and address a variety of water quality concerns relating to watershed management and planning, nonpoint source pollution from agriculture, erosion and stormwater, invasive species, habitat protection, public education, septic systems, and drinking water.*

## Distribution of FL-LOWPA Funding



## Water Quality Monitoring

Approximately 17% of FL-LOWPA's annual appropriation supports stream and lake monitoring, which is used to develop baseline data, determine trends, and identify problems. This data can be used to track down pollutants and stop them at their source. Over 150 lakes and streams have been monitored and 34,000 samples have been collected and analyzed since 2000, with numerous projects planned and improvements made to ultimately improve the water quality of Lake Ontario.

Hamilton County is located completely within the Adirondack Park. It has a



Collecting water monitoring data.

wealth of natural resources, with over 500 lakes and ponds, rivers and streams. The economy of Hamilton County relies heavily on tourism, which depends on clean water. FL-LOWPA funds have supported monitoring projects on more than 20 lakes throughout the County for over 10 years. The County's SWCD continues to work with local lake associations and volunteers to accomplish their monitoring goals. A report, "The State of Hamilton County Lakes an Analysis of Water Quality trends 1993-2003" is available on the Hamilton County website and provides information on a variety of water quality parameters measured over the last decade. This report also provides local decision

makers and members of the community with enough information to understand water quality trends and keep an eye on the health of the County's valuable natural resources.

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## Agriculture

Agriculture is a vital part of Upstate New York's economy, but it is also a potential source of pesticides, pathogens and other pollutants which threaten the health of our streams and lakes. FL-LOWPA has provided funding to support many agricultural projects to reduce agricultural pollutants and protect our water resources, such as technical support for New York State's Agriculture Environmental Management (AEM), Confined Animal Feeding Operation (CAFO) compliance assistance, nutrient management, and Best Management Practices. FL-LOWPA projects conducted in 2008 alone have assisted 324 farms, impacting 31,046 farm acres.

**Wyoming County is the top dairy producer in New York State and one of the top counties in total agricultural production.**

As one of the largest dairy counties in the United States, with one of the highest concentrations of dairy animals in the Northeast, reducing pollution from farms is a high priority. In 2008, FL-LOWPA funds enabled Wyoming County to complete a silage leachate collection system and filter area on two CAFO farms, reducing pollutants and improving the water quality of several tributaries in the Lake Ontario drainage basin. FL-LOWPA funds have also supported a Water Quality Technician, responsible for the survey, design and construction inspection of several best management practices including conservation tillage activities, tile drainage, manure storage facilities, milk house waste collection systems and barnyard runoff containment systems. Funds were also used to update a data collector and upgrade a computer system to assist the Water Quality Technician with the daily workload.



Logwell Acres

Laying the rebar and concrete forms for the silage leachate collection



Completed silage leachate collection system.



Completed concrete pad for silage leachate system.

## Watershed Stabilization and Stormwater

A common water quality problem within the Lake Ontario drainage basin is siltation and sedimentation from eroding streambanks, road ditches, embankments and urban development. Excessive silt and sediment loading affects drinking water quality, impedes bathing and water recreation, and degrades nearshore areas including fish spawning areas. FL-LOWPA funds have been used to stabilize over 500 miles of roadbank through hydroseeding, keeping soil in its place and preventing further erosion and sedimentation. Since 2000, over 80,000 linear feet (15 miles) of streambank has been stabilized by FL-LOWPA funded projects including the installation of rock riprap, rock lining, and bioengineering. Additionally, FL-LOWPA funding resulted in the construction and development of

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39 new wetlands to filter surface runoff and provide acres of new habitat for wildlife. Throughout FL-LOWPA's history, over 151 workshops on stormwater regulations and erosion control methods have been conducted for highway and municipal agencies to assist them with the Environmental Protection Agency's Stormwater Phase II Program. FL-LOWPA members also provided technical assistance to over 65 communities to aid in the preparation of (mandated) stormwater management plans.

## Impairments to Steuben County's surface waters affect swimming in area lakes and the health of aquatic life.

According to Steuben County's Soil and Water Conservation District, runoff from agriculture and failing septic systems are a major cause of these impairments, but siltation and sedimentation are also cited as primary water quality problems. Excessive runoff can also be attributed to the steep topography, natural geology, and stream alterations that can be found throughout the County. FL-LOWPA funds were used for a county-wide hydroseeding program, which resulted in the seeding of critical town and county construction projects to control sediment from stream banks, road ditches, gravel pits and general development. Four streambank and road ditch projects were also implemented using seeding and bioengineering, in addition to riprap rock placement to improve the County's water quality.



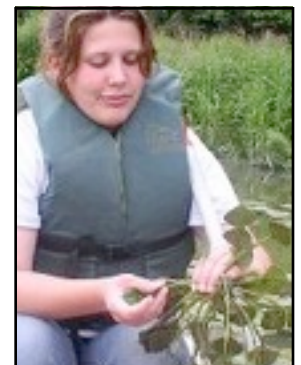
Road ditch hydroseeding

## Invasive Species Control

Invasive species threaten the survival and diversity of our native plants and animals as they rapidly multiply and dominate food supplies and habitat. Non-native plants, such as Eurasian water milfoil (milfoil) and water chestnut, have aggressively invaded and become dominate in many of our waterbodies. Fishing, swimming and boating are definitely impaired by the existence and overabundance of these aquatic invaders. FL-LOWPA funds have supported aquatic vegetation harvesting, herbicide applications and hand-pulling as methods of control. In addition, FL-LOWPA programs have contributed to research projects investigating the feasibility of biological control agents for established populations of invasive species. Over 65,000 tons of aquatic vegetation, primarily milfoil and water chestnut, have been removed in member counties with the help of FL-LOWPA funds since the year 2000.



Hand-pulling invasive plants in Cayuga County



## Cayuga County Soil and Water Conservation District utilized FL-LOWPA funds

to mechanically harvest nuisance and invasive aquatic vegetation from Owasco, Cayuga, and Otter Lakes, as well as Little Sodus Bay and Lake Como. Cayuga County Cooperative Extension conducted educational programs on invasive species in the County, and also used FL-LOWPA funds for

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equipment and staff time to organize and conduct several volunteer hand-pulling events focusing on the removal of water chestnut in Sterling Creek, Cross Lake and other waterbodies throughout the County.

**Biological control of invasive species is still in its infancy. Madison County, in collaboration with Cornell University,**

has conducted a four year investigation into the biological control of Eurasian Water Milfoil in Lebanon Reservoir. Research has determined that the larvae of an aquatic moth, *Acentria ephemerella*, feeds on milfoil. Unfortunately, the same larva is often consumed by bluegills and other panfish commonly found in New York's water ways. The reservoir has been stocked with walleye fry, which develop and then prey upon the bluegill. This will minimize the predation on the introduced aquatic moths so that they can effectively reduce the milfoil populations. Results have been very promising, and Madison County is looking to expand this project to other lakes to further study the effects walleye may have on the milfoil problem and potential solutions.



*Acentria ephemerella*

## Education and Information

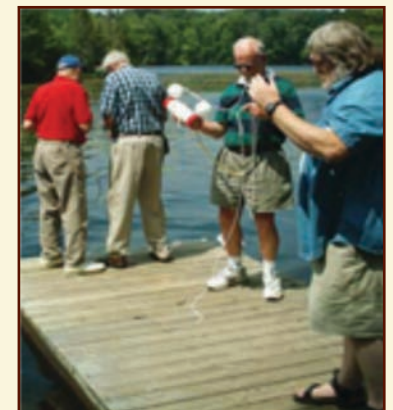


Youth stream sampling project

Education and information exchange, a vital component of the FL-LOWPA program, is a part, in some form, of each county project. FL-LOWPA funds support many lake and watershed organizations in this endeavor. Public presentations, newsletters, workshops (septic system, stormwater and invasive species), signage, direct mailings, and classroom presentations have reached over 650,000 people with valuable information about water quality issues and practices that can easily be implemented to solve problems. FL-LOWPA's educational programs have also provided information about local, state and federal programs and regulations to elected officials, lake associations and property owners. Another facet of FL-LOWPA's education initiative focuses on young people – our future leaders. A lifelong appreciation of our natural resources can be developed by even a single event in a young person's life. Many children have participated in class projects and field trips to learn

about aquatic habitats, water quality and stream sampling, in addition to attending events such as the New York State Envirothon and County Conservation Field Days.

With the growing use of Geographic Information Systems (GIS), many FL-LOWPA counties have sought new data sources to meet the information needs of today. FL-LOWPA has contributed to the development of GIS capability in several counties to build a database featuring watershed, hydrology, soil and tax parcel information that can be quickly accessed and used by communities and municipal agencies for decision making, planning and implementation of water quality projects.



Volunteer water quality monitoring

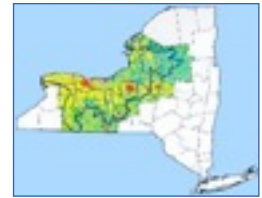
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## FL-LOWPA Member Counties

FL-LOWPA membership includes the following New York State counties wholly or partially in the Lakes 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



Please visit our website at [www.flowpa.org](http://www.flowpa.org) for more information about the Alliance, conference and workshop dates and County project details, including the FL-LOWPA interactive mapping system of the County projects.

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