

FLOWPA FUNDAMENTALS

FINGER LAKES - LAKE ONTARIO WATERSHED PROTECTION ALLIANCE
FROM STREAMS, TO LAKES, TO GREAT LAKES
PROTECTING OUR WATER RESOURCES BEGINNING AT THE LOCAL LEVEL

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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

FLOWPA HISTORY

The Finger Lakes - Lake Ontario Watershed Protection Alliance (FLOWPA) grew out of the former Finger Lakes Aquatic Vegetation Control Program (AVCP). The AVCP was initiated in 1984 in Cayuga County, New York to address surface water quality concerns. The program grew to include 18 counties encompassing a multitude of water resources.

The control of nuisance aquatic vegetation was a main concern during the 1980s. Through the 1990s the program became more watershed focused, with an emphasis on pollution prevention through control of non-point sources. In 1994, a proposal was developed by the member counties to more explicitly identify holistic, grassroots watershed management as the primary focus of the existing program. The proposal was implemented during 1996, resulting in a new program name, the Finger Lakes-Lake Ontario Watershed Protection Alliance, and a membership including 25 New York State counties wholly or partially in the Lake Ontario watershed.

FLOWPA has been included in the New York State Environmental Protection Fund since 1997. Since 2000, FLOWPA has cost-shared and provided technical assistance to local governments and residents on hundreds of water quality improvement projects based on local priorities, statewide goals and documented needs. Working with more than 200 partners across the Lake Ontario Basin, over \$20 million has been leveraged in addition to FLOWPA funding to address water quality concerns.

Some of FLOWPA's greatest agricultural accomplishments are highlighted in the following pages.

AGRICULTURE

According to the United States Department of Agriculture, "Best Management Practices (BMPs) include soil and water conservation practices and social actions that are effective and practical tools for environmental protection. Rarely does one single practice or action solve the pollutant concern, but often it is a combination of measures that is used. BMPs are most commonly selected taking into account the specific soils, climate, and management factors of the site. The cost of implementing some BMPs can be high, such as structural measures like manure storage systems. Other BMPs carry no apparent cost, as in the case of delayed manure application." USDA ARS (Agriculture Research Services ARS 163 June 2006)

FLOWPA has been instrumental in designing and installing hundreds of BMPs throughout the Finger Lakes - Lake Ontario drainage basin to help protect and improve water quality; while also saving producers time and money. FLOWPA funds have been used to assist over 2,470 different farms responsible for approximately 275,750 acres to reduce nutrients, pathogens and pesticides from reaching Lake Ontario. FLOWPA's funds have been used to demonstrate and implement conservation tillage and crop rotation practices, construct manure storage areas, and develop silage leachate facilities. Funding has also supported the design and installation of drainage tiles, watering systems, barnyard roof runoff collection systems, laneways and fencing for rotational grazing systems.



Pasture walk in Madison County to educate producers on pasture management and rotational grazing.

*Photo credit: Madison County
Soil and Water Conservation District (SWCD)*

20 YEARS OF SUCCESS

69

stream crossing and fencing areas

84

silage leachate systems

6,681 acres in conservation tillage

3,430,308

feet of tile drains

71

manure storage facilities

9,658

feet of riparian buffers

102

pesticide preparation and storage facilities

114

barnyard runoff collection systems

TEAM APPROACH TO PROBLEM SOLVING

Working along side landowners and local governments, FLOWPA members implement high priority projects that will have the biggest impact on protecting and preserving the State's valuable fresh water and natural resources. The following stories provide a glimpse into the type of projects that have been implemented throughout 25 New York State counties designed to address water quality concerns from farmland. Each FLOWPA member county has the ability to direct FLOWPA funds to projects within their county that will have the greatest impact on water quality within the Finger Lakes - Lake Ontario drainage basin. Landowners contribute cash, labor and the use of equipment while working directly with member counties to design and implement projects that increase productivity and efficiency while reducing nutrient runoff, sedimentation, erosion and chemical pesticide usage.

ALLEGANY COUNTY

Riverland Dairy Farm improved barnyard issues and met CAFO requirements with the aid of FLOWPA funding (\$2,012) and \$7,585 in other state funds. Riverland contributed \$3,208 and successfully controlled the mixing of runoff from concrete areas with clean roof water that ran off unconfined and untreated. Correcting the problem required the installation of drip trenches to transfer clean water away from the buildings and concrete curbing on the concrete walkways between barns to contain runoff. In addition, Riverland installed a 500-gallon collection tank and pump which was then connected to a vegetative treatment area to treat the water from the concrete walkways.



Riverland Dairy Farm before and during construction to eliminate water quality concerns
Photo credit: Allegany County SWCD

CORTLAND COUNTY

FLOWPA contributed \$3,134 towards a demonstration stream crossing project for the Connelly Farm, located in the Virgil Creek watershed in Cortland County, a tributary to Cayuga Lake. Farm equipment crossing the stream created significant erosion problems, contributing to sediment and pollutant loading to the lake. The demonstration project involved installing two different armoring materials to compare effectiveness and durability. Each material was found to be both effective and durable.



Stream crossing before demonstration
Photo credit: Cortland County SWCD

GENESEE COUNTY

An unstable spring located in a Markiewicz Farm pasture led to soil erosion, turbid concentrated flow downhill to a nearby creek, and cattle mortality. By using funding provided by FLOWPA, Genesee County SWCD was able to provide cost-share assistance at 75% of the total project cost to develop a safe water source for cattle to drink from and reduce erosion and turbid runoff to the nearby creek. The total project cost was \$11,500 and FLOWPA contributed \$8,625.



Erosion control, improved drinking water supply and cattle health.

Photo credit: Genesee County SWCD



HERKIMER COUNTY

A Town of Winfield landowner in close proximity to a DEC wetland approached Herkimer County SWCD for help in addressing water quality concerns at their dairy goat farm. After the completion of a Comprehensive Nutrient Management Plan, it became apparent that a dry stable surface for the health and quality of the dairy goat herd was needed. Construction of the covered barnyard cost \$17,600 and will preserve the water quality of the adjacent wetland. The landowner contributed \$4,400, FLOWPA provided \$13,200, the New York State Agriculture Environmental Management Program provided technical assistance valued at \$8,000 and the Natural Resources Conservation Service contributed \$3,600.

“FLOWPA funding has a tangible impact on water quality and agricultural health.”

- Kristy LaManche, FLOWPA Program Coordinator



Preserving the water quality of an adjacent wetland by providing a dry stable surface for dairy goats.

Photo credit: Herkimer County SWCD

FLOWPA funds were used on over 100 acres of farmland at ten farms for the installation of agricultural BMPs in Livingston County, some of which included:

- Installation of 2,300 linear feet of terrace systems
- Abatement of agricultural run-off with three roof/clean water exclusion projects
- Construction of a stream crossing to keep animals out of a water and reduce sedimentation
- Installation of grassed waterways
- Installation of a 1.5 acre water and sediment control basin to address field erosion
- Installation of 6,650 linear feet of tile drainage
- Installation of 2,700 linear feet of riparian buffers along streams
- Installation of 560 feet of tile outlet diversions and underground outlets

NIAGARA COUNTY

Agricultural improvements are critical to sustaining natural resources and fresh water.

A farm in Niagara County installed a leachate collection system to eliminate the discharge of concentrated silage leachate and improve the water quality in Twelvemile Creek as it flows north to Lake Ontario, twelve miles east of the Niagara River. FLOWPA contributed \$9,200 to the total project cost of \$19,900 while the landowner contributed the remaining balance in labor and equipment.



Silage leachate collection system.
Photo credit: Niagara County SWCD

OSWEGO COUNTY

Oswego County SWCD worked with a beef farm in the Town of Scriba to address an undersized barnyard without collection or treatment of runoff that drained to an unnamed tributary which then drains directly into Sunset Bay on Lake Ontario.

An Agricultural Environmental Management Plan determined that the best management practice for the farm would be to expand the barnyard with the addition of concrete, curbing and a push wall. The push wall provides the farmer with a wall to push up against when scraping manure off of the concrete for removal with a bucket loader for placement in a manure spreader. A vegetated treatment area was added to filter water that passed through a solids collection box on one of the corners of the concrete barnyard. This project used \$20,400 in FLOWPA funds, a \$5,750 landowner cash contribution, \$6,150 in NYS AEM funds, and \$300 in landowner in-kind labor.



Before and after of BMP installation
Photo credit: Oswego County SWCD



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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

FLLOWPA

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