

CONESUS LAKE WATERSHED: 20 YEARS OF PROGRESS, PROJECTS, AND PARTNERSHIPS

Since 2003, the Conesus Lake Watershed Council has overseen the implementation of the Conesus Lake Watershed Management Plan with effective measures to protect and restore water quality. This document is an overview of the numerous programs and projects that have been implemented in the last 20 years.

MAJOR ACCOMPLISHMENTS

● \$2 MILLION FOR AGRICULTURAL
BEST MANAGEMENT PRACTICES



● 20 YEARS WATER QUALITY
MONITORING



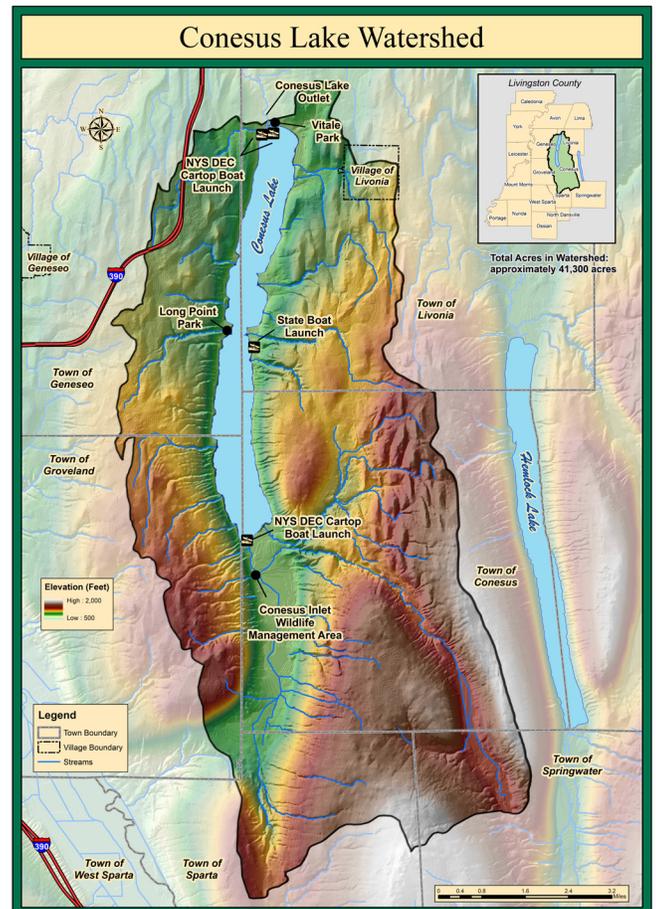
● 78 EDUCATIONAL
WORKSHOPS & CAMPAIGNS



● 32,000 BOAT INSPECTIONS



CONESUS LAKE WATERSHED



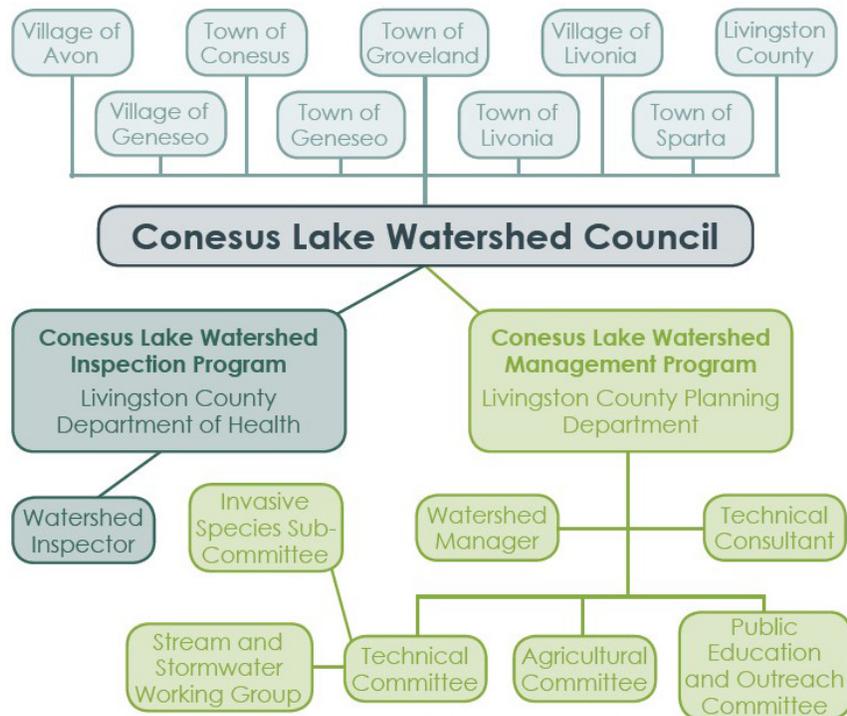
20 YEARS OF FUNDING

TOTAL FUNDING AND GRANTS	\$9,534,245
MUNICIPAL AND COUNTY SHARE	\$4,143,551
STATE FUNDS	\$4,137,694
FEDERAL FUNDS	\$1,200,000
CORPORATE FUNDS	\$53,000

PARTNERSHIPS & COLLABORATIONS

- Livingston County
- Conesus Lake Association (CLA)
- Cornell Cooperative Extension of Livingston County (CCE)
- Livingston County Soil and Water Conservation District (SWCD)
- Livingston County Water and Sewer Authority (WSA)
- Finger Lake Institute (FLI)/ Finger Lakes Partnership For Regional Invasive Species Management (PRISM)
- NYS Department of Environmental Conservation (NYSDEC)
- NYS Office of Parks, Recreation, and Historic Preservation (NYS OPRHP)
- NYS Federation of Lake Associations (FOLA)
- SUNY Geneseo & SUNY Brockport
- SUNY Environmental Science and Forestry
- Finger Lakes Community College
- USDA Natural Resources Conservation Service (NRCS)

GOVERNING STRUCTURE



THE WATERSHED MANAGEMENT PLAN IS CONTINUOUSLY IMPLEMENTED THROUGH ANNUAL WORK PLANS.

CONESUS LAKE WATERSHED MANAGEMENT PROGRAM

- Staffed by the Livingston County Planning Department
- Supports the administration of the Watershed Council and its committees
- Implements recommendations in the Management Plan
- Represents Conesus Lake at the statewide level

CONESUS LAKE WATERSHED INSPECTION PROGRAM

- Staffed by the Livingston County Department of Health
- Enforces the Conesus Lake Watershed Rules & Regulations
 - » Since 2011, **501** water samples have been taken at public beaches & special sampling sites
 - » From 2002-2022, **193** new & **143** repair septic permits issued
 - » Since 2012, Conesus Lake has been continually monitored for harmful algal blooms (HABs)

AGRICULTURAL BEST MANAGEMENT PRACTICES

Implemented through partnerships with:

- Livingston County Soil & Water Conservation District
 - USDA Natural Resource Conservation Services

Over **50 farms** have participated. Projects include grass lined waterways, cover crops, water and sediment control basins, underground outlets, field terracing, waterway fencing, and subsurface drainage



Cover Crop Acres



Pond and Drainage Basin



Underground Outlets & Drainage Basin



MONITORING

Work by SUNY Geneseo, SUNY Brockport, Citizens Statewide Lake Assessment Program (CSLAP), FL PRISM Macrophyte Team, and HABS Monitoring Team.

TECHNOLOGY

Use of weather stations, lake temperature profilers, drone, underwater cameras, and real time lake level reporting.



Aerial Surveillance



Weather Station



In-lake Monitoring



CSLAP Monitoring



FL PRISM
Macrophyte Survey
Team

Credit: Avery Howe, 2021



NYSDEC Lake Monitoring

HABS MONITORING TEAM

The HABS Monitoring Team is a partnership between the Livingston County Department of Health, Conesus Lake Association volunteers, and SUNY Geneseo. The Watershed Inspector works with these partners and confirms and reports alerts to the public.



SUNY BROCKPORT & SUNY GENESEO MONITORING

SUNY teams provided scientific expertise and assisted in monitoring of water quality and invasive species under the leadership of Dr. Joe Makarewicz (retired), Dr. Isidro Bosch, and Dr. Michael Chislock.



Dr. Bosch Scuba Diving in Macrophyte Bed During Summer Monitoring



SUNY Geneseo Students Studying Conesus Lake Water Quality



SUNY Brockport Students Sampling in Wilkins Creek

STREAMBANK RESTORATION

Five stream segments in the watershed restored.
\$1.4 million in grant funding.

NORTH GULLY CREEK, LIVONIA



Before



After

NORTH MCMILLAN CREEK, CONESUS



Before



After

INVASIVE SPECIES MANAGEMENT

New detections of **5** aquatic and **3** terrestrial invasive species:

- Aquatic - Brittle Naiad, Chinese Mystery Snail, European Rudd, Starry Stonewort, Water Lettuce
- Terrestrial - Flowering Rush, Mile-a-Minute, Yellow Flag Iris

Watershed partners participated in numerous survey and removal events.

Educational materials distributed to help prevent the spread of invasive species.



Water Lettuce Detected



Kayak Survey for Invasive Species



Starry Stonewort Identification



Conesus Lake: Starry Stonewort Grid Map & Locator



Mile-A-Minute Pull Event Volunteers



Invasive Species Disposal Stations Installed



Hydrilla Hunt

EDUCATION & OUTREACH

Conesus Lake Association
Conesus Lake Stewardship Initiative

800 new lake owner visits
400 renter best practice magnets
300 storm drain labels



WATERSHED EDUCATION CENTER (WEC)

The Town of Livonia WEC has served as an educational hub since 2017. Programming is supported by the Conesus Lake Association, Watershed Council, Cornell Cooperative Extension of Livingston County, Livingston County Department of Health, Livingston County Planning Department, Town of Livonia, and Chip Holt Nature Center.



Invasive Species Training at the WEC



WATERSHED
EDUCATION
CENTER



WEC Website

WATERCRAFT STEWARD PROGRAM (EST. 2013)

- Partnership with the NYS Office of Parks, Recreation, and Historic Preservation, SUNY ESF, and the Conesus Lake Association.
- **175 boats** with contaminants have been intercepted
- **160,000 people** have received educational materials.



COMMUNITY OUTREACH



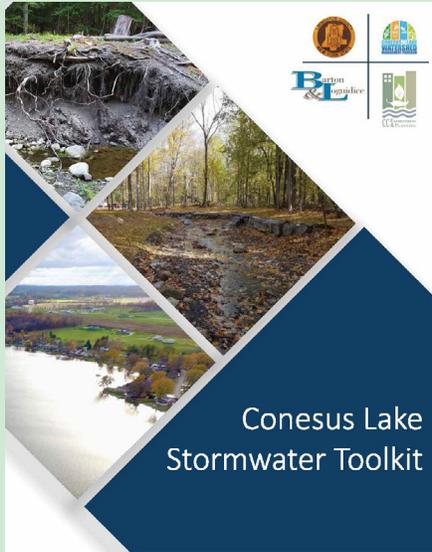
DOH Stream Table at the Vitale Park Festival

OUTREACH MATERIAL EXAMPLES

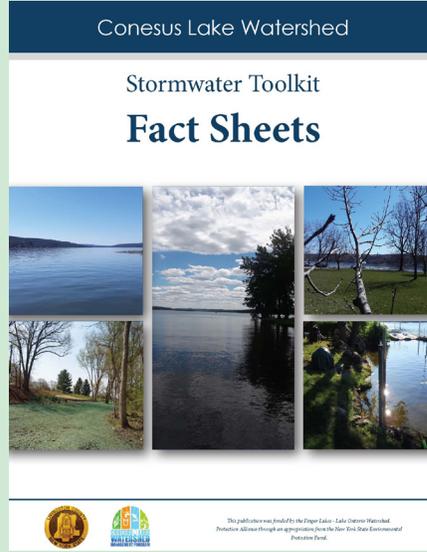
Educational initiatives have successfully resulted in the creation and distribution of **10** informative brochures and pamphlets. Watershed education has also been conducted through **15** education campaigns and **53** Watershed Education Center Programs. Informational kiosks at Long Point Park, Geneseo and Vitale Park, Livonia have also been installed.



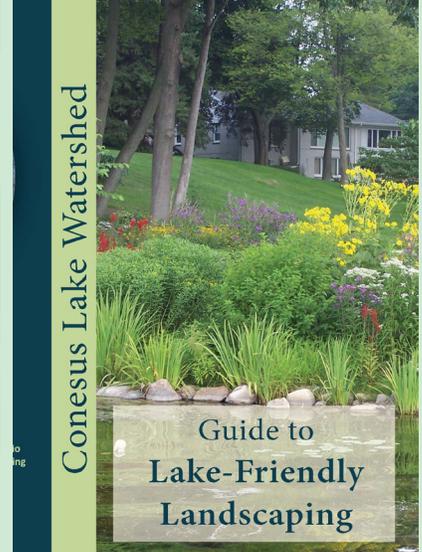
CLICK TO VIEW EACH DOCUMENT ONLINE



Stormwater Toolkit Report



Stormwater Toolkit Fact Sheets



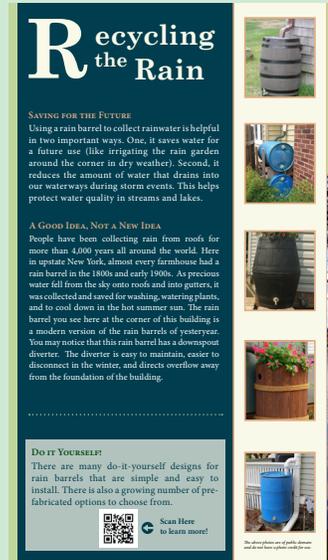
Lake-Friendly Landscaping Guide



Educational Kiosk



Informational Brochure



Informational Kiosk

LAKE AND WATERSHED PROJECTS

VITALE PARK

The Conesus Lake shoreline at Vitale Park was improved using funds acquired through the NYSDEC Water Quality Improvement (WQIP) Natural Shoreline Remediation Grant. The project serves as a demonstration site, offering an alternative to hardened shorescapes, like breakwalls.



Before



After

VITALE PARK BRIDGE

The Vitale Park Bridge was improved using funds acquired through the Water Quality Improvement (WQIP) Old Outlet Reconfiguration Grant. The open span bridge was built to enhance circulation and reduce potential HABs.



Before



After

NORTH GULLY CREEK, LIVONIA

The North Gully Creek project in the Town of Livonia was improved using Finger Lakes - Lake Ontario Watershed Protection Alliance (FOLLOWPA) funds. The Livingston County Highway Department repaired the collapsing wing wall for the protection of East Lake Road.



Before



After

LAKE AND WATERSHED PROJECTS

RAIN BARRELS

Rain barrels were installed at Vitale Park. A rain barrel captures water from a roof and holds it for later uses, such as watering lawns, gardens, or indoor plants.



Rain barrel installed at the WEC



Over 100 rain barrels have been distributed in the watershed through WEC programs



WEC rain barrel installed by a watershed resident

RAIN GARDENS

Rain gardens were installed at Vitale and Long Point parks to manage stormwater runoff.

Vitale Park



Before



After

Catching the Rain

Look Close. How many of these plants can you find?

A Plant for Pollinators
Plants best suited for our pollinators are diverse, native to North America, and complement ground cover landscape. Many rain garden plants also provide important habitat for pollinators. Pollinators are the lifelines, bees, butterflies that rely on the nectar of flowers for energy. In return, they transport pollen from plant to plant which ensures thriving and future reproduction.

Healthy Solutions
Rain and snowmelt runoff from rooftops and lawns flows into streets, sidewalks, driveways, and parking lots. This runoff carries oil, grease, and other pollutants into our water. A rain garden is a beautiful solution to the pressing problem of stormwater management. Rain gardens of all shapes and sizes absorb runoff and protect water quality.

Take Rainwater and Make It Count
The downspout on the building in front of you collects rainwater and channels it from the rooftop and directs it into this rain garden. The rainwater, grasses, and plants in the garden in this shallow basin are deep-rooted and well-suited to filtering and absorbing stormwater runoff from the roof and infiltrated flow below it into the lake. The water that leaves the rain garden has fewer nutrients, sediments, and pollutants than when it entered. This keeps our phosphorus and surface water clean!

Be a Water Steward!
It is easy and inexpensive to create your own rain garden. Add leaves to your compost, support native species and pollinators, and help keep our water clean!

Visit Rain Garden at www.wec.org

WEC Rain Garden Kiosk

Long Point Park



During Construction



After

Rain Gardens: A Water Quality Solution
Long Point Park Rain Garden

What is a Rain Garden?
A rain garden is a shallow depression planted with deep-rooted, native plants that absorb and filter rainwater runoff. The depression allows water to infiltrate the soil, where it is filtered and stored. This process helps reduce the amount of runoff that enters the lake. Rain gardens are a simple and effective way to manage stormwater runoff on the roof and back the lawn. They are also a beautiful addition to any landscape.

Rain Gardens Filter Water Pollution
Rain gardens filter water pollution by absorbing and filtering rainwater runoff. The plants in the garden help to filter out pollutants such as oil, grease, and sediment. This helps to keep the water clean and healthy. Rain gardens are a simple and effective way to manage stormwater runoff on the roof and back the lawn. They are also a beautiful addition to any landscape.

Rain Gardens Reduce Flood Intensity
Rain gardens reduce flood intensity by absorbing and filtering rainwater runoff. The plants in the garden help to filter out pollutants such as oil, grease, and sediment. This helps to keep the water clean and healthy. Rain gardens are a simple and effective way to manage stormwater runoff on the roof and back the lawn. They are also a beautiful addition to any landscape.

The Long Point Park Rain Garden
The new Rain Point Park Rain Garden was designed to absorb and filter rainwater runoff from the nearby road. The garden is a beautiful addition to the park and helps to keep the water clean and healthy. Rain gardens are a simple and effective way to manage stormwater runoff on the roof and back the lawn. They are also a beautiful addition to any landscape.

Can you spot these native plants in the garden?

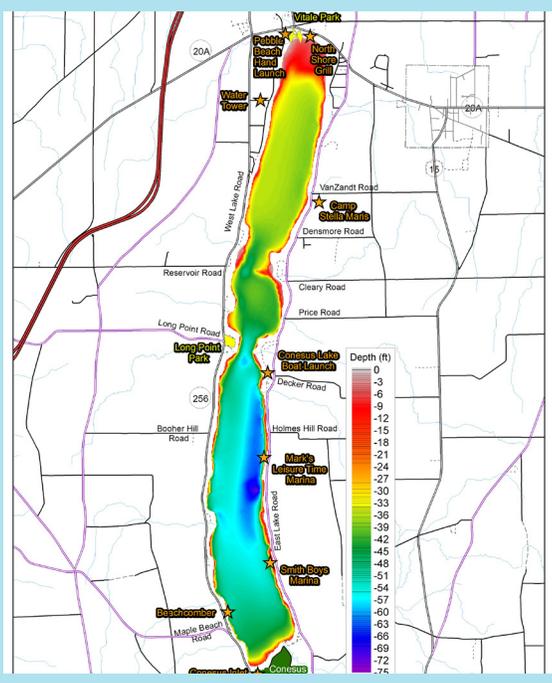
- Mark Matfeld
- Sumflower
- Wild Geranium
- Ice Plant
- Jacky Ladder
- Joe-Pe-Weed

Rain Garden Kiosk

LAKE AND WATERSHED PROJECTS

BATHYMETRIC SURVEY

A bathymetric survey was conducted to understand water depths near important parks and boat launch areas.



ROAD DITCH REMEDIATION

The Towns of Conesus, Geneseo, Groveland, Livonia, and Sparta received an EPF Road Ditch Grant.

East Lake Road, Livonia



Before



After

SOLARBEE WATER CIRCULATION



Pilot test of solar-powered mixing device from 2006-2007. Data collection and analysis indicated that the technology was not effective in this lake.

FISH STOCKING

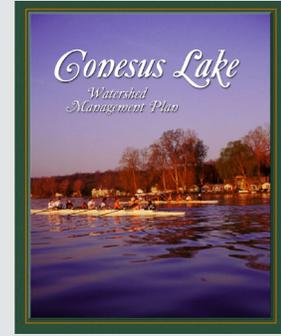


510,000 Walleye and **40,000** Tiger Muskellunge have been stocked in Conesus Lake by the NYSDEC and CLA.

PLANS, REPORTS, & PUBLICATIONS

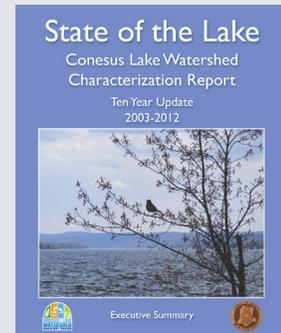
PLANS

[Conesus Lake Watershed Management Plan](#)
[CLWC Invasive Species Prevention & Response Plan](#)
[HABs early detection & rapid response plan](#)
[Fish Kill Contingency Plan](#)
[NYSDEC HABs Action Plan for Conesus Lake](#)



REPORTS

[State of the Lake: Conesus Lake Watershed Characterization Report](#)
[Wilkins Creek Subwatershed Stormwater Study](#)
[SUNY Geneseo/Brockport Annual Monitoring Reports](#)



PUBLICATIONS

[Harmful Algal Blooms \(HABs\) Brochure](#)
[Hydrilla Brochure](#)
[Guide to Preserving Conesus Lake](#)



FOR MORE INFORMATION VISIT:

<https://www.livingstoncounty.us/conesus.htm>

OR SCAN THE QR CODE



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