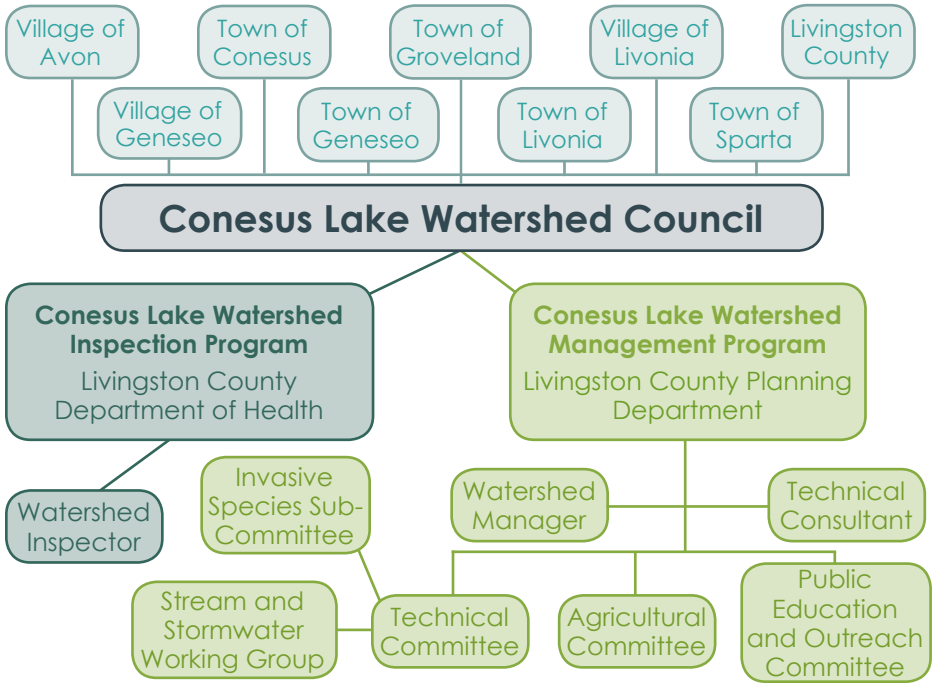
Conesus Lake Annual Report Card

Conesus Lake Watershed Council **2019**

About the Conesus Lake Watershed Council

The Conesus Lake Watershed Council is an inter-municipal organization established in 2003 to govern the implementation of the Conesus Lake Watershed Management Plan. Council membership is composed of towns and villages with land within the watershed boundaries and water purveyors who use Conesus Lake as a public water supply. The Council oversees the Conesus Lake Watershed Management Program and the Conesus Lake Watershed Inspection Program. Important partners include, but are not limited to, the Conesus Lake Association, SUNY Brockport & Geneseo, Livingston County SWCD and WSA, CCE Livingston, Finger Lakes Institute, NRCS, and NYSDEC.

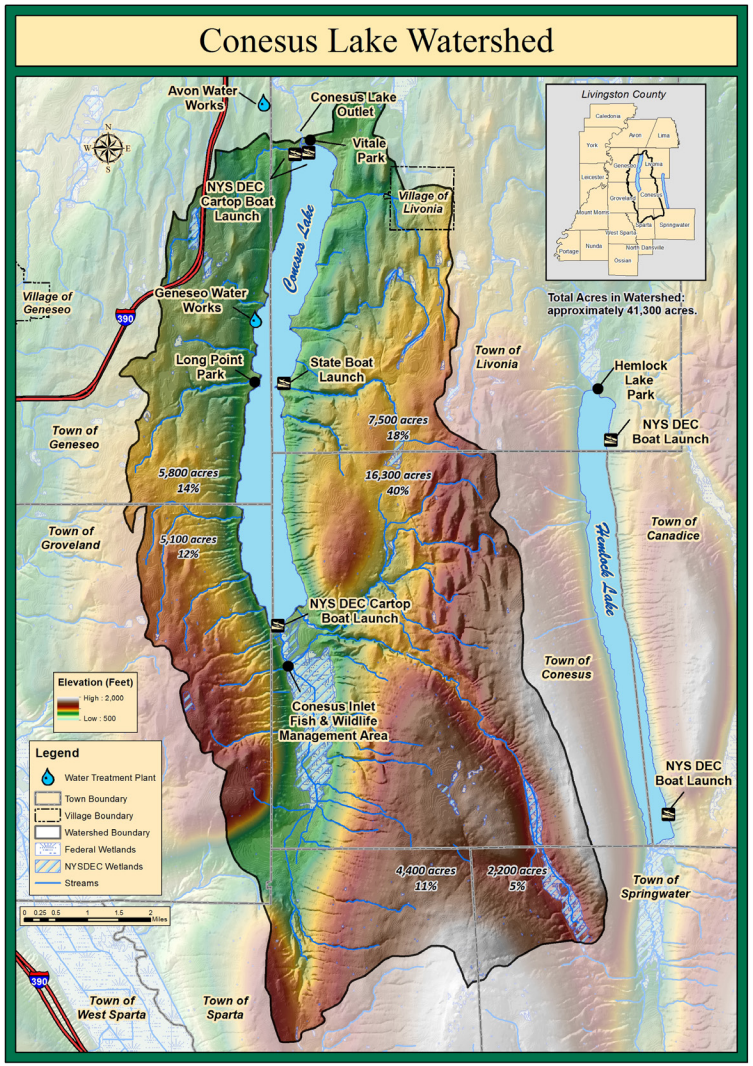


Conesus Lake Watershed Council governing structure

Conesus Lake Association (CLA), Livingston County Soil & Water Conservation District (SWCD), Livingston County Water & Sewer Authority (WSA), Cornell Cooperative Extension-Livingston County (CCE), Finger Lakes Institute (FLI), Natural Resources Conservation Service (NRCS) and NYS Department of Environmental Conservation (DEC).

Purpose of this Document

Recommendation H-2 in the Conesus Lake Watershed Management Plan (2003) is to prepare an annual update summarizing the status of activities in the watershed, particularly the ongoing efforts to reduce nonpoint source pollution. The Annual Report Card provides a forum for tracking water quality conditions in Conesus Lake and highlighting implementation projects and new developments.



Summary of Major Accomplishments

Since its formation in 2003, the Conesus Lake Watershed Council has coordinated implementation of the recommendations of the Conesus Lake Watershed Management Plan. Restoring the health of the lake and its watershed requires a sustained effort across multiple partnerships and a focus on many deeply interconnected issues. Progress in implementation of the Conesus Lake Watershed Management Plan continued in 2019. Highlights include:

Water Quality Monitoring

- SUNY Geneseo and SUNY Brockport research teams continued their long-standing collaboration on Conesus Lake and watershed issues. In 2019, the water quality monitoring program focused on documenting the magnitude and importance of internal phosphorus loading and water column mixing as triggers to summer phytoplankton blooms, and evaluating the effectiveness of streambank stabilization projects.
- Conesus Lake continued in the Citizen Statewide Lake Assessment Program (CSLAP), a joint effort of NYS Department of Environmental Conservation (NYSDEC) and the NYS Federation of Lake Associations providing consistent water quality monitoring. Two sites were monitored by Conesus Lake Association (CLA) volunteers in 2019.
- Livingston County Department of Health (LCDOH) staff monitored beach areas for coliform bacteria; these organisms are used as indicators of the potential presence of pathogens in water. In addition, the Department of Health and trained CLA volunteers conduced shoreline surveillance for cyanobacteria (harmful algal blooms or HABs).
- The CLA continued to install and maintain instrumentation to monitor lake temperature profiles and provide research-quality meteorological data. As of 2019, two weather stations were fully functional; the North Station is located in Vitale Park and the South Station is located in the NYSDEC Conesus Inlet Wildlife Management Area.
- A Conesus Lake boat tour for agencies who fund Conesus Lake watershed projects, NYSDEC, and Finger Lakes-Lake Ontario Watershed Protection Alliance (FLLOWPA) was conducted. Tour included overview of water quality monitoring efforts.

Matt and Dan Beers sampling Wilkins Creek, SUNY Brockport.

Stonefly nymph collected on N. McMillan Creek - an indicator species of water quality.

Professor Chislock setting up monitoring equipment during boat tour for funding agencies.

Invasive Species

- Continued implementation of the Conesus Lake Watershed Council's Invasive Species Prevention and Response Plan. Through the monitoring efforts of SUNY Brockport, SUNY Geneseo, and the CLA volunteers in the Finger Lakes Partnership for Regional Invasive Species Management (PRISM) Macrophyte Survey Program, no new aquatic invasive species were discovered in Conesus Lake in 2019.
- The Watercraft Steward Program inspected 4,869 boats in Conesus Lake and intercepted 24 boats arriving from other lakes with contaminants. The boat decontamination station was available for the full season.
- Mile-a-minute is a highly invasive terrestrial plant. SUNY Brockport, with support from Finger Lakes PRISM and NYSDEC, coordinated eradication/pulling activities. Continued reduction in plant numbers reported in 2019.

Mile-a-Minute eradication in Geneseo, Patty Wakefield-Brown, PRISM

- The CLA initiated a pilot program to survey invasive dreissenid mussel population to determine if the zebra mussel population is changing, or if quagga mussels have become established. No quagga mussels were discovered in Conesus Lake in 2019.

Watershed Inspection Program

- The Watershed Inspector responded to 36 complaints, monitored 43 construction sites and issued 5 violations to help improve environmental protection.
- The Department of Health continued its public bathing beach program at Long Point Park, Camp Stella Maris, and Southern Shores Beach through 2019.

CLA volunteers participate in the Finger Lakes PRISM Macrophyte Survey Program.

Harmful Algal Blooms

- HAB identification and notification efforts continued from June through October.
- Town of Livonia was awarded a Water Quality Improvement (WQIP) grant for a harmful algal bloom project in Vitale Park; the Old Outlet Reconfiguration Grant will provide for culvert replacement with a bridge and dam gate reconfiguration.

Education

- The Watershed Education Center (WEC) completed its second full year of public programming on important topics from water quality, to invasive species, to Conesus Lake history.

WEC Program: Plant Identification & Pressing Workshop

Stream Restoration and Stormwater Management

- The Conesus Lake Watershed Stormwater Toolkit, a regulatory toolkit that addresses stormwater management needs, was completed. Reference and Summary documents, and easy-to-use Toolkit Fact Sheets were included.
- Work on the Vitale Park Green Infrastructure Project included the installation of two rain barrels to manage stormwater run-off from the WEC building.
- Town of Livonia was awarded a second WQIP grant in Vitale Park. The Natural Shoreline Restoration Grant will restore and stabilize the eastern Conesus Lake shoreline.

Agricultural Best Management Practices

- In 2019, the Natural Resources Conservation Service (NRCS) supported pollinator plantings in the Conesus Lake watershed, and NRCS has completed conservation plans to be implemented in 2020 on additional acres.
- The Livingston County Soil and Water Conservation District (SWCD) projects included the installation of a stormwater management basin, catch basin, replacement of a steel culvert, and hundreds of feet of subsurface drainage. In addition, the SWCD worked with 11 farms to establish 330 acres of cover crops.

Typical winter wheat crop after Sept. 15, Livingston County SWCD.

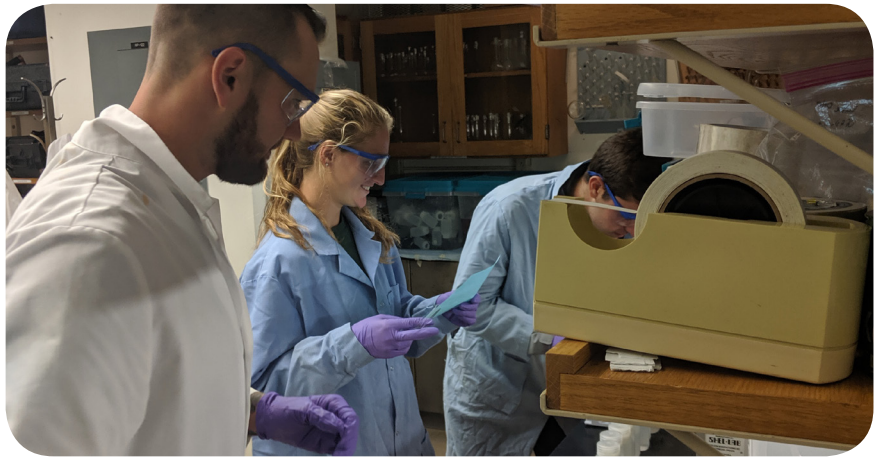
Rain barrel installed at the WEC to direct roof runoff into the rain garden.

Monitoring and Assessment

Since completion of the Watershed Management Plan in 2003, the Conesus Lake Watershed Council and professional staff have directed efforts to assess water quality and explore effective management approaches for restoration and protection. These efforts have focused on identifying and addressing the sources of phosphorus and sediment along with understanding the lake's food web--cyanobacteria and other plankton, aquatic plants, mussels, and the fish community (Table 1). Our ecosystem-based management approach and effective collaborations with SUNY Geneseo and SUNY Brockport researchers, USDA, NYSDEC, Conesus Lake Association, and the Finger Lakes-Lake Ontario Watershed Protection Alliance are guiding management strategies.

2019 Highlights: Enhanced Monitoring

The 2019 Conesus Lake monitoring results indicate stable water quality conditions. The lake remains suitable for its designated uses as a potable water supply (following treatment), contact recreation, and habitat for fish and wildlife. The primary source of phosphorus affecting lake trophic status is internal; legacy phosphorus bound in sediments is released to the water column during seasonal stratification. Internal waves (seiches) mix phosphorus from deep in the lake into the upper sunlit zone where it supports proliferation of algae and cyanobacteria.



Ryan Johnson, Olivia Douglas, Jarod Ruffle processing water samples.

Dan Beers sampling macroinvertebrates on a tributary to Conesus Lake, SUNY Brockport.

Trophic State and CSLAP

Limnologists and lake managers rely on key measurements to assess a lake's level of primary productivity, or trophic state. Total phosphorus (Total P), chlorophyll-a (photosynthetic pigment indicative of phytoplankton), and Secchi disk transparency (a measure of water clarity) are widely used to demonstrate a lake's trophic state. Results of the 2019 monitoring program confirm that the lake's trophic state is stable; Total P, chlorophyll-a, and Secchi disk transparency are within long-term average range.

Conesus Lake continued in the CSLAP. CSLAP lakes are monitored for a consistent suite of water quality indicator parameters using standardized protocols. Annual monitoring provides a basis to compare water quality and trophic state conditions over time and among participating lakes. Conesus Lake and the ten other Finger Lakes have been in CSLAP since 2017.

Internal Phosphorus Dynamics

The significance of sediment phosphorus (P) release to the Conesus Lake ecosystem has been well documented. With years of monitoring, analysis, and modeling documented in the Watershed Management Plan, the Conesus Lake Total Maximum Daily Load (TMDL), and the Conesus Lake HABs (Harmful Algal Bloom) Action Plan confirm that 75-80% of the lake's annual P budget is internal recycling from the sediments. This legacy P, which has entered the lake over decades, is released from sediments to the overlying water when seasonal anoxia (low oxygen) alters chemistry at the lake bottom.

Kate Brown, SUNY Brockport limnology student, collecting water sample using Van Dorn sampler.

The 2019 field program, led by Dr. Sid Bosch of SUNY Geneseo, was designed to quantify sediment P flux from three basins of Conesus Lake: southern, central, and northern. The southern basin was by far the most significant contributor of legacy P to the water column. Results documented the magnitude and ecological importance of the internal P flux.

Cyanopicoplankton

The 2019 lake monitoring program also sought to understand the ecological causes and consequences of blooms dominated by single cell photosynthetic cyanobacteria (known as cyanopicoplankton) that occur regularly in Conesus Lake. Dr. Bosch and colleagues first reported on these tiny cyanobacteria in 2015. Blooms tend to occur in July and can dramatically affect water clarity and color; Conesus Lake takes on a milky-aqua hue when blooms are at peak. Multiple samples were collected in July and August and analyzed for species composition and cell counts. Dr. Bosch sent a sample to PhycoTech, Inc. in St. Joseph, MI for confirmation. The bloom samples were dominated by *Synechococcus*, a genus of unicellular cyanobacteria. This genus is listed among toxin and taste-and-odor producing cyanobacteria. There is no evidence that *Synechococcus* blooms in Conesus Lake produce toxins or pose a risk to public health. Blooms of these picocyanobacteria may alter the lake's light and nutrient environment in ways that affect the seasonal occurrences of other phytoplankton, including the larger colonial and/or filamentous cyanobacterial species detected in many Finger Lakes in late summer and fall.

Cyanopicoplankton image taken by Dr. Sid Bosch, SUNY Geneseo.

Table 1. Sequence of monitoring and assessment, 2003-2019

Year	Lake Monitoring					Lake Remedial Alternatives		Tributary BMPs and Load Estimates	
	Trophic State	Beach Bacteria	Macrophytes	Internal Phosphorus	Food Web	Enhanced Mixing	Alum Treatment	USDA Project	Streambank Stabilization
2003	✓	✓	✓	✓				✓	
2004		✓	✓		✓Plankton, Fish		✓DEIS	✓	
2005		✓	✓		✓Macrobenthos		✓Jar Tests	✓	
2006	✓	✓	✓			✓SolarBee		✓	✓
2007	✓	✓	✓			✓SolarBee		✓	
2008		✓	✓					✓	✓
2009	✓	✓	✓	✓	✓Plankton, Fish		✓Bathymetry	✓	
2010		✓	✓					✓	
2011	✓	✓						✓	
2012	✓	✓						✓	
2013		✓							
2014	✓	✓			✓Plankton, Fish				
2015		✓			✓Cyanobacteria			✓	
2016		✓							✓
2017	✓CSLAP	✓		✓					
2018	✓CSLAP	✓		✓	✓Cyanobacteria Invasive Mussels				
2019	✓CSLAP	✓		✓	✓Cyanobacteria				✓

Table 2. Results of 2019 CSLAP Monitoring, Conesus Lake

Trophic State Indicator Parameters (June-Sept)	Oligotrophic	Mesotrophic	Eutrophic	Conesus - North Avg. 2017-2018	Conesus North 2019	Conesus - South Avg. 1972-2018	Conesus - South 2019
Summer average total phosphorus, (ug/L)	<10	10 - 35	35 - 100	20.1	**TBA**	22.4	**TBA**
Summer average chlorophyll-a (ug/L)	<2.5	2.5 - 8	8 - 25	9.9	**8.7**	6.3	**8.4**
Peak chlorophyll-a (ug/L)	<8	8 - 25	25 - 75	21.0	**11.1**	10	**13.7**
Summer average Secchi disk (meters)	>6	6 - 3	3 - 1.5	2.5	**2.4**	3.1	**2.6**
Minimum Secchi disk (meters)	>3	3 - 1.5	1.5 - 0.7	1.5	**1.1**	1.5	**1.5**
Minimum Dissolved Oxygen in lower waters (% saturation)	80 - 100	10 - 80	Less than 10	Less than 10	**Less than 10**	Less than 10	**Less than 10**

South Basin data, intermittent from 1972 to present. North Basin data, 2017-2018.

Stream Banks

The 2019 stream monitoring program provided insights into the effectiveness and ongoing challenges of streambank remediation. The program was designed to evaluate sediment and nutrient concentrations in North Gully, Wilkins Creek, and North McMillan Creek and compare results to measurements obtained prior to bank stabilization projects that were installed in 2015 and 2016 (pre-testing occurred in 2008j). Base flow and wet weather samples were collected upstream and downstream of the bank stabilization projects. The SUNY Brockport team led by Dr. Michael Chislock concluded that the North Gully streambank stabilization has reduced erosion and sediment loss. For Wilkins Creek, a bridge construction project downstream and a long distance between sampling sites 'likely confounded the effects of stream bank stabilization assessed for Wilkins Creek.' Stabilization along North McMillan needs repairs. Additional monitoring during spring high flow conditions is recommended, along with an updated survey of riparian areas.

Documenting Lake Temperature Changes

Statistical analysis of long-term data sets is a tool to differentiate trends from year-to-year variability (the signal from the noise). Conesus Lake water temperature is recorded at the Avon water treatment plant intake; Karl Hanafin and Dr. Bosch analyzed July and August intake temperature data from 1971-2018. As reported in the Laker News, results are consistent with those found in other regional lakes. Water temperatures at the 6 m intake depth are increasing, and the increase is most pronounced since 2007. The intake temperature data are plotted in Figure 1. The three regression lines in the figure illustrate how the rate of change in water temperature has changed. The early part of the record (1971-1991, black line) has scatter, but no trend. The most recent data (1997-2018, orange line) shows an increase of about 0.18 degrees per year. When all the data are pooled (green line), the increasing trend appears to be more gradual.

Warming of the lake has physical, chemical, and biological impacts. Stratification and mixing are affected, along with duration of ice cover. Chemical reaction rates generally increase with temperature. The lake's biological community is affected in a myriad of ways, most related to habitat alteration and resulting shifts in species composition.

In addition to the short-term study of the Avon intake temperatures, all temperature records available for the Avon intake were recorded by CLA volunteer, Caroline Tuttle. This significant effort included over 18,000 data points which spans almost 50 years. This data set will be archived and made available to the public.

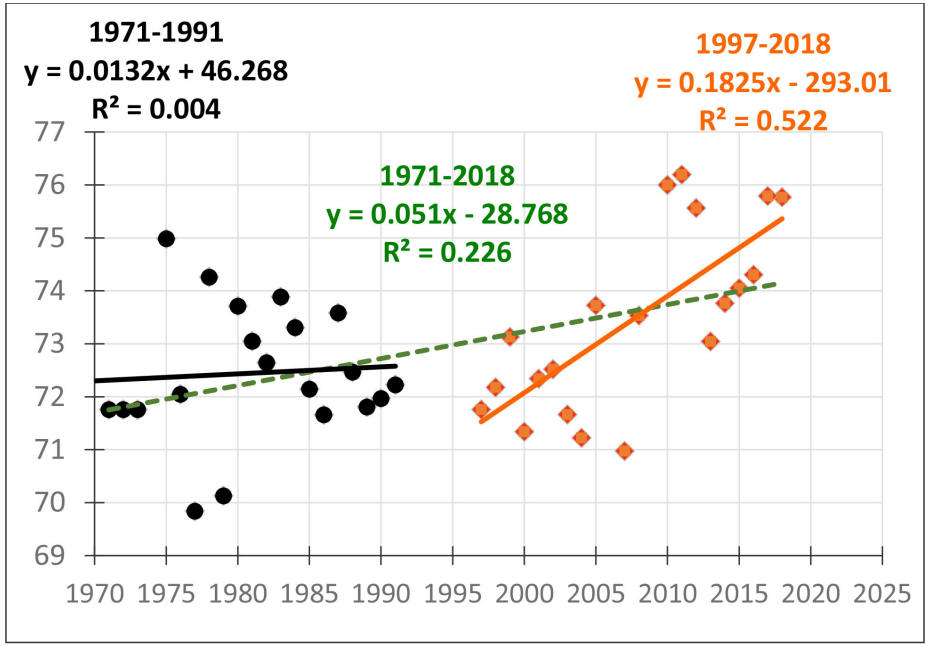


Figure 1. Water temperature data at the Avon intake (6m depth), 1971-2018.

Invasive Species

Invasive species, by definition, are non-native, introduced species that cause harm to the environment, human health, and/or economy. Humans have dramatically increased the rate of spread of new species through international trade and travel. Invasives out-compete and displace native species in their new environment. In the absence of natural predators, invasive species can grow relatively unchecked and disrupt the native ecosystem. In response to the discovery of highly invasive Hydrilla verticulata in nearby Cayuga Lake Inlet in 2011, the Conesus Lake Watershed Council (CLWC) established an Invasive Species Sub-Committee tasked with drafting and implementing the Invasive Species Prevention and Response Plan (2013). Implementation efforts continued in 2019.

Education and Monitoring

Hydrilla (*Hydrilla verticillata*)

Hydrilla is a submerged perennial aquatic macrophyte that creates dense mats of vegetation. The NYSDEC has classified hydrilla as one of the most difficult aquatic invasive plants to control. Since its detection in Cayuga Lake, hydrilla has been the focus of intense and costly efforts at eradication. The plant can grow rapidly, up to 1 inch per day, blocking sunlight and displacing native plants and fish habitat. Decaying biomass can decrease dissolved oxygen content in the water column, leading to fish kills. Dense hydrilla growth would significantly impair fishing, boating, and general recreation in Conesus Lake.

C. McGlynn, NYSDEC

Hydrilla

Hydrilla is on the Watch List of Conesus Lake (NOT present) so PREVENTION is the most effective control. Hydrilla can be easily spread by its seeds, buds and plant fragments, and carried by currents, boats, trailers and fishing gear to new locations. Dumping of unwanted aquarium contents is another common vector.

How can you help? Practice Clean-Drain-Dry. Dispose of bait buckets and debris in trash cans or disposal stations. Do not dump aquarium contents in waterbodies, ditches or canals. Report it. Contact NYSDEC at info@dec.ny.gov and the Conesus Lake Watershed Manager at 585-243-7550.

Rudd (*Scardinius erythropthalmus*)

Rudd, an invasive fish native to Europe, has been confirmed in Conesus Lake. Rudd are freshwater fish that can adapt to many different habitats including eutrophic environments. They are often found in still or slow-moving water and in areas of dense vegetation. Rudd can consume large amounts of aquatic plants along shorelines which can degrade crucial breeding grounds for native fishes. Juvenile Rudd eat zooplankton and aquatic insects and thus pose a threat to native food webs and juveniles of native species. Rudd can breed with native fish, aiding to a loss of genetic diversity. Long term effects of Rudd are still being studied but experts are concerned about their diet and breeding habitats.

Finger Lakes PRISM Rudd

Rudd

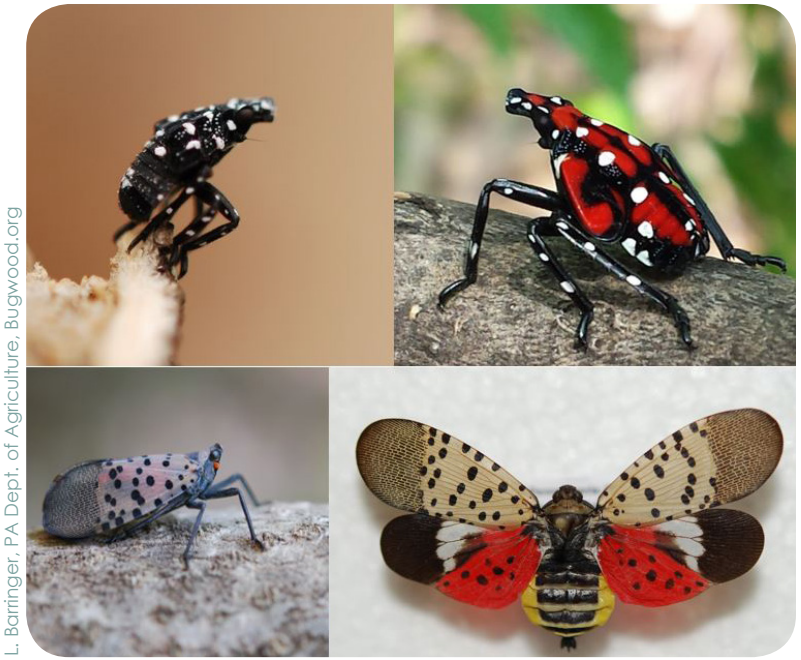
How can you help? Practice Clean-Drain-Dry. Dispose of bait buckets and debris in trash cans or disposal stations, and never use Rudd as bait.

Spotted Lanternfly (*Lycorma delicatula*)

Spotted Lanternfly (SLF) is a plant hopper native to China and

Asia. It feeds on more than 70 plant species, including grapes, hops, fruit trees and hardwoods (apple, cherry, maple, walnut and oaks), with a primary host of Tree of Heaven (*Ailanthus altissima*). This destructive pest feeds on plant sap, stressing plants, making them vulnerable to disease and other insect attacks, and excreting large amounts of sticky honeydew which attracts sooty mold and swarms of insects. This insect poses a significant threat to NYS agricultural and forest health. SLF was discovered in 2014 in Pennsylvania, and by 2018, it was found in five additional states including NYS. Insects lay eggs on a variety of surfaces including vehicles, stone and firewood and are easily spread by people to new areas.

How can you help? Check vehicles, trailers and materials to be transported for insects and egg masses before traveling. Scrape off and dispose of egg masses. Collect insects, photograph, and record gps location. Report It. Contact Department of Agriculture & Markets at spottedlanternfly@agriculture.ny.us and the Conesus Lake Watershed Manager at 585-243-7550.



L. Barringer, PA Dept. of Agriculture, Bugwood.org

Spotted Lanternfly

L. J. Mehrhoff, U. of Conneticut, Bugwood.org

Mile-a-minute close-up

Mile-a-Minute Vine (*Persicaria perfoliata*)

Mile-a-minute vine (MAM) was confirmed in the Conesus Lake watershed in the Town of Geneseo in 2017. The invasive annual vine grows along hedgerows, roadsides, and other disturbed areas. Mile-a-minute vine smothers and often kills other vegetation. It can grow up to 6 inches a day forming dense mats.

SUNY Brockport, Finger Lakes PRISM and NYSDEC are leading the coordinated response in Geneseo, with support from Livingston County, the CLWC, CLA and local partners. Work continued in 2019, including landowner notifications, surveying additional acres, and holding vine pulling events. As seeds from past years can survive in the soil for up to seven years, removal needs to take place in successive years. The response team noted a continued reduction in plants over three years of pulling. Also in 2019, Erica Mackay and Dr. Amantangelo lead a research project at the Geneseo site to study MAM phenology and treatment control methods. An outcome was that mechanical control is effective; broken stems can lead to re-sprouting. For more information and what you can do to help, go to: www.fingerlakesinvasives.org.

Watercraft Steward Program

The primary pathway by which many aquatic invasive species reach inland waterways is by "hitchhiking" on recreational boats and trailers or in the live wells of fishing boats. Hydrilla and water chestnut are highly aggressive aquatic invasive plants that form dense mats that block sunlight to native plants below, crowd out native fish habitat, and impede boating, fishing and swimming. Some invasives on the Watch List for Conesus Lake include: hydrilla, water chestnut, Asian clam, quagga mussels, and spiny waterflea. None of the invasives on the Watch List are present, but they pose a significant threat to the lake.

Watercraft Steward Programs educate the community on the risk of spreading invasive species via recreational boating and assist boaters in performing inspections and invasive species decontamination. In 2019, the Watercraft Steward Program was fully funded under the NYS Office of Parks, Recreation and Historic Preservation (OPRHP) and was supported by SUNY College of Environmental Science & Forestry (ESF) and the CLA.

In 2019, the Watercraft Stewards staffed the Conesus Lake boat launch from Memorial Day through Labor Day. A total of 4,869 boats were inspected, and over 12,000 boaters were reached with information about invasive species prevention.

Total boats inspected significantly decreased at the boat launch since 2017. Despite this decline in inspections, the program still matched the average rate of inspections for the 2013-2016 programs (4,819 average), and the number of boats from other lakes being found with contaminants increased to 24. The reduction in boats inspected from 2018-2019 may be related to changes in scheduling; increased steward coverage during peak use times and coverage of fishing tournaments may be beneficial to program success.

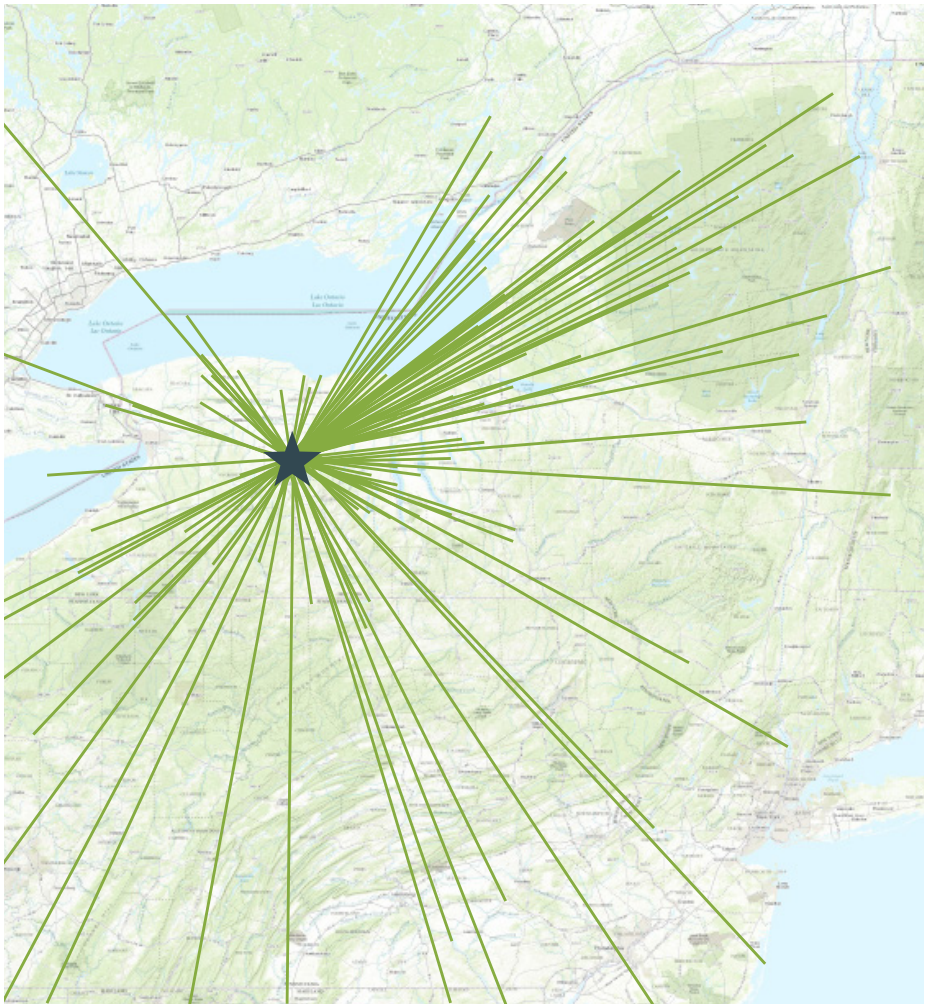
Watercraft Steward Program Data, Conesus Lake

	2019	2018	2017
Boats recorded	4869	6423	8439
Non risk boats (last launch Conesus)	2446	5651	6715
Risk boats (last launch other)	*	772	1724
% of boats non risk	50%	88%	80%
% of boats risk	*	12%	21%
Boats found with organisms attached	24	4	12
Percent of total boats	0.05%	.06%	0.14%
Percent of risk launches	4.2%	.52%	0.70%
Prior contact with a Steward	96%	98%	96%
Prevention steps taken prior to launch	67%	97%	90%
Total Steward hours	*	1280	1255

*Due to new state tracking/data capture methods, comparable data was not collected.

By the end of 2019, 96% of boaters entering Conesus Lake launch had previously spoken with a watercraft steward, as opposed to 80% of boaters at the start of the 2015 season. Boaters taking prevention steps prior to launch decreased to 67% in 2019.

Last Waterbody Visited



Boats travel to Conesus Lake from across the continent, emphasizing the need for the Watercraft Steward Program. In 2018, boats came as far as Canada and Alaska.

Fish Stocking Program

The CLA and NYSDEC stock young walleye in the lake to increase the walleye population that was decimated by the introduction of the invasive alewife. In turn, adult walleye prey on alewives, which helps lower the alewife population.

In June, the NYSDEC stocked 32,500 walleye pond fingerlings (2" length) from the DEC Chautauqua hatchery and 32,500 walleye 50-day fingerlings (2" length) from the DEC Oneida hatchery. In August, the DEC stocked 1,000 surplus tiger muskellunge fingerlings (8" length). In September, stocking of the usual annual allotment of 9,500 muskie fingerlings (8.5" length) was completed. In November, the CLA stocked 1,200 walleye (5 – 7" length) and found that new rearing techniques had produced healthier fingerlings with zero mortality during shipment.

The DEC conducted two fisheries surveys in Conesus Lake in 2019. In September, surveys of the general fish community and assessment of the walleye stocking success with gill nets was conducted. In October, assessment of the forage fish population with experimental gill nets was completed.

NYSDEC conducting a fishery survey in Conesus Lake.

Watershed Inspection Program

The objective of the Conesus Lake Watershed Inspection Program is to help protect and enhance Conesus Lake as a potable water source. Conesus Lake is a valuable resource for Livingston County; protection of the water supply is important for health of the community. With the cooperation and contributions of the two purveyors of public water (Villages of Avon and Geneseo), the Village of Livonia, Livingston County, and five surrounding towns, the inspection program became a reality on August 31, 1998. The Livingston County Department of Health (LCDOH) provides the Conesus Lake Watershed Inspector who responds to concerns regarding water quality and non-point sources of pollution in the watershed.

Watershed Inspections

The Conesus Lake Watershed Inspector responds to water quality complaints made by watershed residents and other members of the public. The Inspector also conducts routine watershed surveillance, monitoring construction sites, erosion, sewage overflows, harmful algal blooms, flooding, bathing beaches, and other activities including public education.

2019 Inspection Activities	
Complaints	36
Construction Projects	43
Violations	5
New Septic Systems	5
Repaired Septic Systems	8
Sewage Overflows	1
Bacteriological Bathing Beach Water Samples	37
Beach Closures	2
Educational Events	5
Damaging Flooding Events	1

2019 Complaint Breakdown	
Sediment and Erosion	8
Drainage	1
Sewage Discharge	1
Agricultural Related	1
Nuisance	4
Weeds/Algae/Odor/HABs Reports	21
Petroleum & Chemical	0

Drinking Water

The NYSDEC classifies Conesus Lake as a Class AA waterbody, designating its best use as a public drinking water supply. One of the goals of both the Watershed Inspection and Management Programs is to ensure this best use. The Villages of Avon and Geneseo both use Conesus Lake as the source for their public water supply. Through these two purveyors, Conesus Lake water supplies more than 20,000 users and 10 water districts, including the Villages of Avon and Geneseo, and portions of the Towns of Avon, Geneseo, Leicester, and York.

Conesus Lake Drinking Water Facts and Figures		
	Village of Avon	Village of Geneseo
NYSDEC Allocation	3.5 MGD	3 MGD
Plant Rating	1 MGD	2 MGD
2018 Annual Usage (gallons)	273,000,000	359,000,000

MGD: (million gallons per day)

Bathing Beach Monitoring

The LCDOH collects nearshore water samples at designated bathing beaches each summer and tests for the presence of fecal coliform bacteria. Fecal coliform bacteria are used as an indicator of recent contamination of water by fecal material. While the coliform bacteria may not be pathogenic (disease-causing), their presence means that other harmful microbes may be in the water. Three bathing beaches: Long Point Beach, Southern Shores Beach, and Camp Stella Maris were routinely monitored throughout the recreational season. Two special samples were taken at Camp Run this season.

Results are compared to the State ambient water quality standards for bacteria, which are used by the NYSDEC to evaluate whether a waterbody supports its designated best uses and by the NYSDOH to evaluate suitability for swimming at designated beaches.

The NYSDEC ambient water quality standard for fecal coliform bacteria is 200 colony forming units per 100 mL of lake water (cfu/100 mL), calculated as the geometric mean of at least five samples per month. A single sample maximum count (1000 cfu/100 mL) is also enforced by the NYSDOH for public beaches. The current bathing beach monitoring program collects weekly samples during the summer recreational season.

Water Sampling

The summer-averaged results for all beach locations ranged between non-detect (<2 cfu/100mL) and 68 cfu/100mL. There were 37 samples in total. No result exceeded the single sample limit of 1000 cfu/100 mL. The DOH is able to report full compliance with fecal coliform bacteria standards at the three monitored bathing beaches. Two special samples were taken at Camp Run. Results were 40 colonies and 60 colonies, due to a sewage overflow during a heavy rain event.

Beach Closure Days

	2019			2018			2017			2016			2015		
	HAB	Bact.	Turb	HAB	Bact.	Turb.	HAB	Bact.	Turb.	HAB	Bact.	Turb.	HAB	Bact.	Turb.
Long Point	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Stella Maris	1	0	0	1	0	0	0	0	0	3	0	0	0	0	0
Southern Shores	1	0	0	1	0	0	0	0	0	8	0	0	0	0	0

HAB: Harmful Algal Blooms Bact: Bacteria Turb: Turbidity

Harmful Algal Blooms

Harmful algal blooms, or HABs, generally consist of visible patches of a bacteria called cyanobacteria. Cyanobacteria, also known as blue-green algae (BGA), are naturally present in low concentrations in most lakes and streams. Under certain conditions, cyanobacteria can multiply rapidly, forming blooms that are visible on the waterbody's surface. Some cyanobacteria can produce toxins that are harmful to people and animals, in cases of ingestion, skin contact, or inhalation. During the summer and fall, the Watershed Inspector conducts routine surveillance for HABs and responds to reports of blooms from the Sheriff's Marine Patrol and citizens on the Lake.

2019 Bloom Season

In Conesus Lake, the first HAB was identified on June 27th. Stella Maris Beach was closed and reopened June 30th. A second HAB was identified as a picocyanobacteria, with lake-wide blooms more concentrated in the center of the Lake. Southern Shores Beach was closed for a period of one week due to limited visibility in the beach area. HABs persisted periodically in the months of September and October. 16 HAB Public health advisories were issued in 2019, which included 6 advisories for blooms reported.

HABs surfacing on the Conesus Lake shoreline.

The NYSDOH required the Village of Avon Public Water Supply to sample weekly for microcystin toxins (HABs) from late August to mid-October. Samples were collected from the raw and finished water supplies, and all sample results were negative for microcystin toxins.

Harmful Algal Blooms Action Plan

The NYSDEC released the Conesus Lake HABs Action Plan in 2018. Conesus Lake was among the 12 priority lakes selected for development of a HABs Action Plan, due to its importance as a water supply and recreational asset. The Plan describes current conditions and trends and recommends solutions to reduce the risk of cyanobacterial blooms and associated adverse effects on recreational use, potable water supply, and aquatic life protection. Significant sources of phosphorus affecting lake water quality conditions were identified.

The percent contribution of phosphorus sources to Conesus Lake were consistent with previous estimates from the SUNY research and monitoring efforts that began in the early 2000s. Internal loading from legacy phosphorus is the major source, contributing some 80% of the annual load. Watershed runoff supplies the remaining 20%.

Key Actions Taken to Address the Plan:

- New Conesus Lake HABs volunteer reporting program implemented. Volunteers, trained by LCDOH and the CLA, resulting in 21 citizen reports of blooms in 2019
- Water quality monitoring with SUNY Geneseo & SUNY Brockport research and CSLAP programs continued.
- HABs surveillance, beach monitoring and health advisory notifications from the LCDOH continued.
- Two Water Quality Improvement grants awarded to the Town of Livonia to address shoreline stabilization, and to enhance water circulation and reduce residence time in

critical areas which will aid in the reduction of HABs.

- New HABs warning signs were developed to replace the advisory signs posted in public access areas around the lake to enhance public safety and awareness.
- The SWCD and NRCS supported multiple Ag BMPs in the watershed to reduce runoff, soil erosion and nutrient loss.

Total Maximum Daily Load

In 2019, the NYSDEC TMDL for Conesus Lake was released, determining the maximum amount of a pollutant (phosphorus) that the lake can assimilate from all sources and still meet water quality standards for its designated best uses. Designated uses for Conesus Lake include a water supply source, primary and secondary contact recreation, and fishing. The TMDL identifies phosphorus sources contributing to the water quality impairment, the amounts coming from each source, and required reductions to meet target in-lake phosphorus levels. For Conesus Lake, all required reductions are allocated to nonpoint sources, including internal sediment loading.

The TMDL calls for substantial reductions in both external and internal loads, as summarized in the following table. The TMDL includes an implementation plan to guide the actions needed to meet target reductions. For Conesus Lake, these reductions are aligned with the HABs Action Plan. The TMDL also recognized the work of the Conesus Watershed Management Plan (CLWMP), the identification and implementation of BMPs and other nutrient control techniques, and the collaboration of involved stakeholders, as factors of successful implementation of the Conesus Lake TMDL.

Summer HABs, north end of Conesus Lake at Vitale Park.

Table 3. Summary of Conesus Lake Phosphorus TMDL

Phosphorus (P) Source	Current P Load (kg/year)	Target P Load to achieve water quality (kg/year)	Required Reduction
Forest and natural areas	321	321	0%
Agricultural runoff	3,202	2,700	16%
Runoff from developed areas	756	700	7%
Internal-aerobic sediment release	6,288	2,680	57%
Internal-anaerobic sediment release	10,641	4,538	57%
Total	**21,208**	**10,939**	**48%**

Education

The WEC at Vitale Park, in the Town of Livonia, opened in 2018. The WEC serves as an educational hub providing information about watershed protection and best management practices. A collaborative group of watershed partners, Town of Livonia, CLA, CCE, Chip Holt Nature Center, and Livingston County Planning Department and DOH, worked to deliver monthly educational programs at the WEC. In 2019, 14 programs reaching 454 participants were held.

2020 CONESUS LAKE EDUCATION SERIES

You're invited to attend FREE monthly educational programs and lectures on a wide range of environmental and historical topics of interest and concern to residents and friends of the Conesus Lake watershed. All programs will be held at the Watershed Education Center at Vitale Park in Lakeville.
For updates on our 2020 schedule dates and times, scan the QR code below or visit our website:
www.conesuslake.org/lake-community/wec.

We hope to see you at our next FREE program.

WATERSHED EDUCATION CENTER

January 16, 2020	4-Hour Erosion Control Workshop for prequalified attendees
February 26, 2020	Transportation in Lakeville: A History
March 25, 2020	Native American Storyteller
April 15, 2020	Amanda's Garden: Gardening with Native Plants
April 29, 2020	Tree Safety and Care for the Homeowner
May 2020	Tick Talk
May 2020	Managing the Trees in Our Towns
June 2020	How to Be a Good Watershed Resident
July 2020	What's Wrong in My Backyard
July 2020	iMap / Aquatic Invasives
August 26, 2020	Conesus Lake Water Quality Monitoring: A CSLAP Update
September 2020	What's Happening in the Watershed; Project Updates
October 21, 2020	Urban Forestry Grants
November 2020	Program TBD
December 2, 2020	Livonia High School Environmental Science Students
December 8, 2020	SUNY Brockport and SUNY Geneseo Science Students

This ad was funded by the Finger Lakes- Lake Ontario Watershed Protection Alliance through an appropriation from the New York State Environmental Protection Fund.

WEC Penny Saver Ad

Conesus Lake EDUCATION Series

Photo: Lynn Airel

You're invited to attend free monthly educational programs and lectures on a wide range of environmental and historical topics of interest and concern to residents and friends of the Conesus Lake watershed.

Watershed Education Center
Vitale Park, Lakeville, NY

FREE MONTHLY PRESENTATIONS

There's a lot to learn about Conesus Lake and its watershed.

Sharing the wealth: that's the whole idea and purpose of our monthly education series. Our programs feature seasoned lecturers and subject matter experts eager to share their knowledge on many topics. Water quality. Local ecology, flora and fauna. Area history. Even college and high school projects that impact our watershed.

The series is sponsored by the Town of Livonia, Conesus Lake Association, Cornell Cooperative Extension, Livingston County, and the Conesus Lake Watershed Council.

Future programs? Scan the QR code or go to conesuslake.org/lake-community/WEC

We hope to see you at our next presentation.

WATERSHED EDUCATION CENTER

This card funded by the Finger Lakes - Lake Ontario Watershed Protection Alliance through an appropriation from the New York State Environmental Protection Fund.

AT VITALE PARK, LAKEVILLE, NY

Conesus Lake Rack Card Front and Back.

The WEC programs were widely promoted. In addition to the web and social media, three ads were placed in the Genesee Valley Pennysaver and rack cards with WEC info were created. Both resources contained the CLA website link where full program information is available and were funded with FLLOWPA funds.

Stormwater Management and Green Infrastructure

Climate Change predictions for the Finger Lakes Region forecast an increase in the frequency and intensity of heavy rain events and corresponding streambank erosion and localized flash flooding. In light of increased development pressures in the watershed compounding these issues, focus has turned toward stormwater management and green infrastructure to help alleviate effects on water quality and public and private property.

Stormwater Toolkit for Homeowners and Municipal Officials

The Conesus Lake Stormwater Toolkit was completed in 2019; products that provide local agencies and code enforcement officers with a comprehensive overview of jurisdiction and regulations pertaining to water quality, floodplains, stormwater management, and erosion control.

Final products include the comprehensive Stormwater Toolkit Reference Document, Summary Guide and easy-to-use Fact Sheets. In 2019, these resources were made available to Livingston County municipalities, code enforcement officers and the general public. Presentations on the use of the Toolkit suite were provided at the WEC and to the NYS Federation of Lake Associations and to the Finger Lakes – Lake Ontario Watershed Alliance.

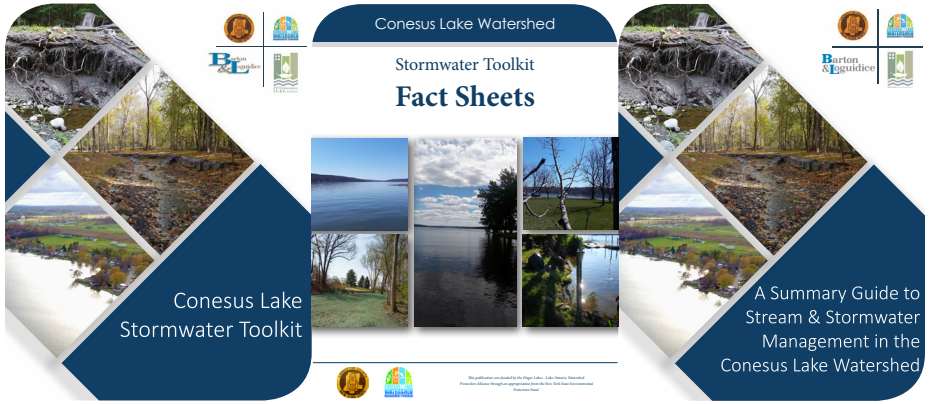
Vitale Park Green Infrastructure Projects

Work continued on the Vitale Park Green Infrastructure Demonstration Project with the installation of rain barrels with stands and soaker hoses demonstrating the use of rainwater runoff from the WEC to water the rain garden. Installation of signage will take place in 2020.

In 2019, the Town of Livonia was awarded additional funding - the Vitale Park Natural Shoreline Restoration WQIP Grant to restore/stabilize the eastern Conesus Lake shoreline and function as a demonstration site for shoreline landowners interested in green practices on their properties. The Town and Livingston County Planning Department worked with NYSDEC on budget and contract development. Project installation will take place in 2020-2021. Funding provided by NYSDEC, Town of Livonia and FLLOWPA.

Stormwater Management and Green Infrastructure Education

Stormwater management and green infrastructure education and training were emphasized at the WEC with five presentations/workshops offered in 2019, covering stormwater management best practices for homeowners, erosion control for professionals, and green infrastructure for municipalities and landowners. Two "sold out" rain barrel make-and-take workshops were held; 50 rain barrels were distributed to landowners. Food grade barrels were donated by the Genesee Brewing Company. Rain barrel conversion kits were funded through the FLLOWPA.



Conesus Lake Stormwater Toolkit
Available on: https://livingstoncounty.us/780/Reports-and-Publications

Agricultural Best Management Practices

Agricultural Best Management Practices (BMPs) help protect water quality by reducing nonpoint sources of pollution on farms. Nonpoint source pollution occurs when rainfall moves over and through the ground picking up loose soil, nutrients, and other pollutants. BMPs function to keep soil and nutrients on the farm and out of ditches, gullies, and streams that flow into lakes and other waterbodies. The same nutrients that help plants grow in the field can contribute to plant growth in a lake in the form of weeds and algae.

The Livingston County SWCD and the USDA NRCS conduct an upland watershed protection program for agricultural land uses to reduce nonpoint sources of pollution from entering waterbodies throughout the watershed.

In 2019, the NRCS supported pollinator plantings in the Conesus Lake watershed, and has completed conservation plans to be implemented on additional acres in 2020.

The SWCD completed a project in the Town of Sparta involving the replacement of a failing culvert, and installation of a large catch basin and underdrainage. The Town of Livonia project involved the installation of an underground outlet, stormwater detention basin, and drainage tubing. A project in the Town of Geneseo involved the installation of a stormwater detention basin, catch basin and sub-surface drainage.

The SWCD Cover Crop Initiative provided cost share and technical assistance to 11 farm operations for the planting of 330 acres of cover crops.

Triticale cover crop planted Sept. 2019, east side of Conesus Lake

Installation of a main for a water & sediment control basin (WASCOB)

Stabilized outlet facing farmstead. Note the water flows clear and calm

Drainage basin taking shape, installation of drainage tile

Trends and Recommendations

Identifying emerging trends and issues and establishing recommendations helps guide the Conesus Lake Watershed Council's yearly Work Plan.

Emerging Trends and Issues

- Invasive forest pests including, but not limited to Spotted Lanternfly, Hemlock Wooly Adelgid and Emerald Ash Borer affecting forest cover and riparian habitat.
- 16 HAB Health Advisories were issued to the public in 2019, of which 6 advisories were for blooms reported. This is compared to 9 blooms reported in 2018 and 4 blooms reported in 2017.
- Impact of aquatic invaders in Conesus Lake: Rudd. Risk of aquatic invaders coming to Conesus Lake: hydrilla, water chestnut, Asian clam, quagga mussels, and spiny waterflea.
- Changes in weather patterns (National Climate Assessment):
  - Increase in the frequency and duration of droughts leading to low water levels and intermittent streams.
  - More intense rain events and overall precipitation leading to increases in natural and stormwater related high flow events contributing to property and infrastructure damage and increasing water pollutant loads.
  - Less reliable snowpack and spring groundwater recharge.
  - More frequent freeze thaw cycles during winter leading to increased instances of ice jamming and localized flooding.
- Increases in sodium and chloride levels in treated water at both the Village of Avon and Village of Geneseo water treatment plants. Sodium levels exceed the recommended levels for consumption by individuals on severely restricted sodium diets.

Recommendations

- Increase public education initiatives related to stream and shoreline restoration and green infrastructure practices.
- Educate municipalities regarding land use practices effect on stormwater, soil erosion, and water quality.
- Continuation of invasive species education and prevention projects including programming at the Watershed Education Center and the Watercraft Steward Program at the East Lake Road Boat Launch.
- Continue water quality parameter monitoring program.
- Revisit Invasive Species, Harmful Algal Blooms, and Fish Kill Response Plans.
- Pursue additional funding for watershed restoration projects.
- Further explore relationship between thermocline and wind mixing as a possible tool to predict harmful algal blooms.
- Increase education on awareness of harmful algal blooms and investigate potential mitigation measures.
- Continue implementation of Governor's HAB Initiative and pursue funding to support the recommendations in the Conesus Lake HABs Action Plan.
- Conduct further investigation into potential causes and solutions to help mitigate increases in sodium levels.

#	Recommendation	Priority	Actions
All	Secure funding Outside of the EPF funding source to implement CLWMP activities. Investigate and apply for funds from grants opportunities as they arise.	High	NYSDEC Urban and Community Forestry Grants: Planning Department and the WEC Outreach Committee provided support to the Town of Geneseo on public education requirements; education programs to be held in 2020. Planning Department provided support to the Villages of Avon, Caledonia, Dansville and the Towns of Geneseo and N. Dansville on grant applications. Planning Department provided support on the Countywide Water Supply Study: Data collection by consultant, Clark Patterson Lee, completed; review of Draft Water Study Update is in process. Support provided to the Town of Livonia on the Lake Waterfront Revitalization Program grant by the Planning Department; State response anticipated in 2020.
A-1	Review and amend zoning regulations to improve consistency in near-lake areas.	High	Planning Staff assisted the Town of Sparta with submission of the Agriculture and Farmland Protection Plan to Dept. of Ag & Markets; Plan received approval and reimbursement. Planning Staff assisted the Town of Geneseo with modifications to the Agricultural and Farmland Protection Plan; close-out in 2020. The Conesus Lake Watershed Stormwater Toolkit and ordinance review documents were completed and distributed. Planning Department delivered presentations on the Toolkit at the WEC, NYS Federation of Lake Associations (FOLA), and FLLOWPA.
A-3	Develop public education campaigns on BMPs for lake and watershed residents.	High	The Town of Livonia is working with the Livingston County Planning Department & Department of Health (DOH), Conesus Lake Association (CLA), Cornell Cooperative Extension of Livingston County, and the Chip Holt Nature Center on educational programming at the Watershed Education Center (WEC). Promotion included the development of informational rack cards and Pennysaver ads. 14 educational programs were held at the WEC, reaching 454 participants. The Conesus Lake Stormwater Toolkit for homeowners and municipal officials was completed. Water quality monitoring and Conesus Lake Annual reports were made available on the Planning Department's Conesus Lake webpage. The Watershed Inspector presented on watershed issues to youth audiences at local schools and the Chip Holt Nature Center. CLA and Towns of Conesus, Geneseo, Groveland and Livonia held four Livingston County Community Clean Up Events, in the watershed. The installation of two weather stations on Conesus Lake were completed.

#	Recommendation	Priority	Actions
B-1	Secure funding to help mitigate the financial impacts of changes in agricultural practices on the producers.	High	Agencies will continue these activities annually as part of their existing programs. Planning Department and Livingston County Soil & Water Conservation District (SWCD) worked to secure additional FLLOWPA funds for cover crops in the watershed.
B-2	Implement practices that will reduce nonpoint source pollution from farms.	High	The Natural Resources Conservation District (NRCS) projects included pollinator planting in the watershed, and has completed conservation plans to be implemented on additional acres in 2020. SWCD completed a project in the Town of Sparta involving the replacement of a culvert, and installation of a catch basin and underdrainage. The Town of Livonia project involved the installation of an underground outlet, stormwater detention basin, and drainage tubing. The Town of Geneseo project involved the installation of a stormwater detention basin, catch basin and sub-surface drainage.
C-1	Develop and implement program to restore and stabilize streambanks in the watershed.	High	Watershed Manager coordinated additional work on the Green Infrastructure Demonstration project at Vitale Park: rain barrels with stands and soaker hoses were installed for the rain garden. The Town of Livonia was awarded two WQIP grants for Vitale Park. Natural Shoreline Restoration and Old Outlet Reconfiguration. The Town and Planning staff worked with NYSDEC on budget and contract development. Project installation to take place in 2020-2021. With the Wilkins Creek Subwatershed Stormwater Study complete, funding through Livingston County SWCD and Green Infrastructure Grants Program (GIGP) were explored for potential projects in the Village of Livonia and on private lands. As part of the Livonia High School Capital Improvement Program, retention and detention ponds were installed and are fully functional. DOH and CLWC Technical Committee worked on revising HABs signage.
C-3	Develop public education campaigns on the impact of human activities on the health of the Lake.	Med.	As part of the Conesus Stewardship Initiative, the CLA distributed Welcome to the Lake packets to new watershed residents, provided volunteers for the PRISM Macrophyte Survey program, and offered Citizens HABs training to participants. Outreach to watershed residents continued with staffing of the informational booth at the CLA's Arts and Crafts Fair. Distribution of watershed education materials continues at all WEC programs. In order to increase distribution, the Planning Department provided each watershed town and village with a special allocation of materials, including the Guide to Preserving Conesus Lake Best Practices, Stormwater Toolkit Fact Sheets and Lake Friendly Landscaping Guide.

#	Recommendation	Priority	Actions
E-2	Develop a public education campaign promoting invasive species awareness	High	Invasive species awareness education was promoted at the Watershed Education Center, with 5 programs offered in 2019, through the Watercraft Steward Program and staffing of CLA informational booths.
F-4	Develop a protocol and timeline to inventory septic/sanitary systems within the watershed.	Low	LCDOH participated in the DEC Septic System Replacement Program, which provides a source of funding to property owners for replacement of eligible septic systems located in direct proximity to tributaries of Conesus Lake. Several inquiries resulted in two septic systems in the watershed being identified as approved candidates. One of those properties subsequently received funding.
G-1	Investigate and implement effective methods to control the spread of non-native (exotic) organisms	High	2019 Watercraft Stewards started on Memorial Day weekend and finished on Labor Day with 4,869boats inspected on Conesus Lake.. at the East Lake Road boat launch.24 boats were found with organisms attached. The Watercraft Steward Program is fully funded by NYS OPRHP through 2022, and OPRHP contracts with SUNY ESF for two watercraft stewards for Conesus Lake. The Watershed Manager participated in the Finger Lakes Partnership for Regional Invasive Species Management (PRISM) Steering Committee meeting, Full Partner Meeting and Aquatic Invasive Species training. Exploration of legislative support for Invasive Species emergency and control funding continued into 2019. CLA Macrophyte survey volunteers conducted several rake toss observations this season. The underwater ROV was deployed, emphasizing the State boat launch and the carry-in launch off Pebble Beach. No new observations of invasive species in Conesus Lake were made. The Planning Department proposal for drone and underwater camera for aquatic invasive species use is in final review stage; for purchase in 2020.
G-2	Develop and implement a program for cleaning accumulated aquatic plants and algae along the shoreline of Conesus Lake	High	Opportunities to work with Livingston County Workforce Development programs on shoreline clean up will be pursued when available. The Conesus Lake Fish Kill Contingency and Conesus Lake Aquatic Invasive Species Response Plans did not require activation in 2019.

#	Recommendation	Priority	Actions
G-4	Initiate effort to determine if increased stocking of walleye fingerlings, or other species, would be an effective biological control in Conesus Lake.	High	NYSDEC stocked 32,500 walleye pond fingerlings, 32,500 walleye 50-day fingerlings, and 1,000 surplus tiger muskellunge fingerlings in Conesus Lake. Stocking of the annual allotment of 9,500 muskie fingerlings was completed in the Fall. In November, the CLA stocked 1,200 walleye and found that new rearing techniques had produced healthier fingerlings with zero mortality during shipment. DEC conducted 2 fisheries surveys of the general fish community and assessment of the walleye stocking success with gill nets, and an assessment of the forage fish population with experimental gill nets.
H-1	Conduct an annual monitoring program of Conesus Lake and its watershed. An annual monitoring meeting should be held to coordinate the monitoring program.	High	The Livingston County DOH continued the public bathing beach monitoring and harmful algal blooms programs during 2019 SUNY Geneseo & SUNY Brockport 2018 Summer Monitoring Study data was analyzed and posted on the Livingston County website. The 2019 monitoring focused on documenting the magnitude and importance of internal phosphorus loading and water column mixing as triggers to summer phytoplankton blooms, and evaluating the effectiveness of streambank stabilization projects. The Watershed Manager coordinated a Conesus Lake boat tour for agencies who fund Conesus Lake watershed projects, NYSDEC, and Finger Lakes-Lake Ontario Watershed Protection Alliance (FLLOWPA). Tour included overview of water quality monitoring efforts. The CLA weather reporting system consisting of two monitoring stations on the shoreline, and a free public online database is fully operational. The CSLAP program continued in 2019 with three CLA volunteers. 2019 data is under NYSDEC review and will be available in early 2020. The Zebra Mussel Monitoring Program is underway. The SUNY Geneseo and CLA Research Project documenting lake temperature changes was conducted; including statistical analysis of water intake temperature data from 1971-2018.
H-2	Prepare and distribute an annual Conesus Lake and Watershed Report Card.	High	The 2018 Annual Report Card was approved by the Watershed Council and provided to NYSDEC/ Finger Lakes Hub. NYSDEC released the Conesus Lake TMDL in 2019. In 2019, the focus was on implementation of HABs initiatives and pursuing funding to support the recommendations in the Conesus Lake HABs Action Plan.

Conesus Lake Watershed Council

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CONESUS LAKE WATERSHED MANAGEMENT PROGRAM

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Document prepared by the Livingston County Planning Department and CC Environment & Planning

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