Conesus Lake and Watershed 2014 Report Card

Assessment of the Conesus Lake Watershed Management Plan

Conesus Lake Watershed Council

April 28, 2015

EcoLogic

PURPOSE OF THIS DOCUMENT

One of the recommendations of the 2003 Conesus Lake Watershed Management Plan (CLWMP) is to prepare an annual update summarizing the status of activities in the watershed, particularly the ongoing efforts to reduce nonpoint source pollution. This annual summary provides a forum for tracking conditions in Conesus Lake and highlighting new information.

MAJOR ACCOMPLISHMENTS

Since its formation in 2003, the Conesus Lake Watershed Council (CLWC) has coordinated implementation of the recommendations of the CLWMP. The Watershed Council is an intermunicipal organization with a dual mission: first, to coordinate actions for restoring the health of Conesus Lake and its watershed; and second, to communicate progress to the watershed community and other stakeholders. Restoring the health of the lake and its watershed requires a sustained effort and a focus on many interrelated issues.

Progress in implementation of the CLWMP continued in 2014. Highlights include:

- ***Streambank restoration***
    - ◊ Long Point Creek Streambank Improvement Project: reinforced the stream channel and embankments in order to reduce erosion in the vicinity of the West Lake Road crossing.
    - ◊ North Gully Repair: replaced a washed-out retaining wall adjacent to the East Lake Road Bridge.
- ***Conesus Lake annual monitoring***
    - ◊ SUNY Brockport monitored Conesus Lake water quality and plankton community as part of the long-term trend assessment.
- ***Invasive species management activities***
    - ◊ The Conesus Lake Association's Hydrilla Hunt did not discover the presence of this aggressive invasive in 2014.
    - ◊ Invasive species disposal stations were installed at three boat launches.
    - ◊ The Watercraft Stewards program continued to educate boaters and personal watercraft users about the importance of clean equipment. New in 2014 was the hiring of two Summer Youth employees through the Livingston County Office of Workforce Development.
- ***Public Education***
    - ◊ Completion of an informational kiosk at Long Point Park.
    - ◊ Publication of the updated bathymetric survey on waterproof paper, with information on invasive species.

STREAMBANK REMEDIATION ACTIVITIES
CONESUS LAKE WATERSHED

Long Point Creek, Town of Geneseo

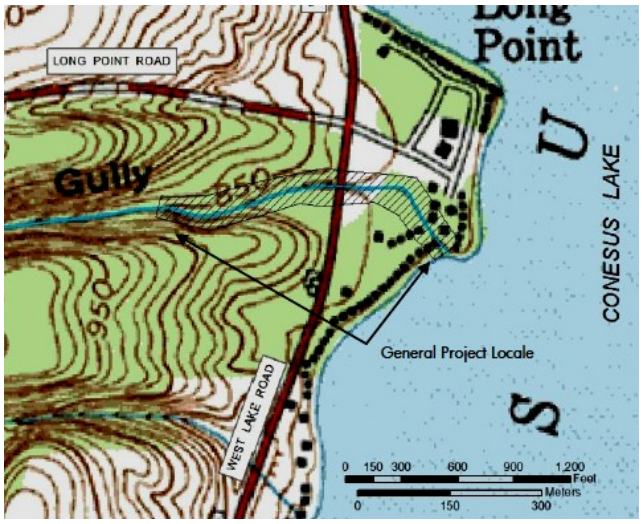


Figure 1. Location of 2014 stream channel improvements to downstream segment of Long Point Creek, between West Lake Rd. and Conesus Lake

Image: Robert L. Dean, Heritage Preservation and Interpretation Inc., Phase 1A/B Cultural Resource Investigation, Proposed Stream Improvements, OPRHP 13PR4911, July, 2014

In fall 2014, the first phase of a stream bank improvement project was installed by the Town of Geneseo Highway Department under direction of engineers and scientists from Barton & Loguidice. This project was located on the western side of Conesus Lake along lower reaches of Long Point Gully near West Lake Rd. (Figure 1). The project was designed to strengthen and rebuild portions of the banks so that the channel can better accommodate high flows, thus reducing the potential for erosion. Additional work on upstream segments is planned.

The floodplain on the right was graded to handle flooding during high flows, thereby reducing erosion potential along the left bank and Creekside Lane.

Image: Shaun P. McAdams, Project Environmental Scientist, Barton & Loguidice, D.P.C.

A cultural resources investigation was completed in July 2014. Construction began in September and included grading/filling, light excavation, and placement of rock toe face and bank-full bench. An eroded bank along Creekside Lane was reconstructed with fill material available from other components of the project. Construction activities were completed in December 2014. Seeding of the restored area is scheduled for spring 2015, once the risk of high stream flows associated with spring runoff has diminished.

North Gully, Town of Livonia

A retaining wall on North Gully, downstream and adjacent to the East Lake Road Bridge, was damaged by flood flows from one of the large rain events of summer 2014. Since the damage was located in a county highway right-of-way, the Livingston County Highway Department led the effort, with funding from the Finger Lakes—Lake Ontario Watershed Protection Alliance, to repair the damage and replace the wall. This action will prevent further erosion and protect the bridge.

Views of North Gully before (left) and after (right) repair of the damaged retaining wall.

Image: Livingston County, 2014.

FINDINGS OF THE 2014 LAKE MONITORING STUDIES: TROPHIC STATUS AND WATER QUALITY, THE PLANKTON COMMUNITY, AND FILAMENTOUS ALGAE

Researchers from SUNY Brockport and SUNY Geneseo regularly monitor Conesus Lake to assess long-term trends in water quality and trophic status, evaluate the food web and plankton community, and survey the species diversity and relative abundance of the macrophyte community. The 2014 program was designed to meet the following objectives:

- Assess the current status of lake health by determining if changes (improvement or degradation) had occurred relative to trophic state and long-term trends in lake chemistry;
- Evaluate the phytoplankton and zooplankton community to determine if adding predaceous walleye to the lake was affecting alewife populations; and
- Measure the biomass of filamentous algae associated with macrophyte beds as an indicator of nutrient loading from streams.

Trophic Status of Conesus Lake, Long-term Trends in Lake Chemistry and the Plankton Community

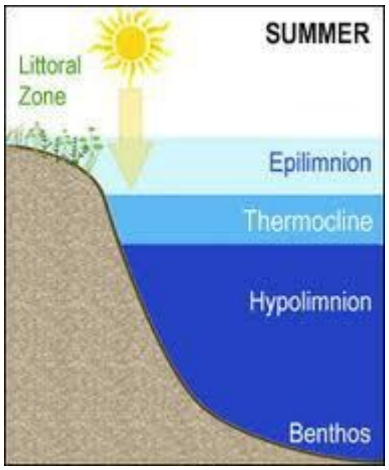
The SUNY Brockport team, under the direction of Joseph Makarewicz and Theodore Lewis, monitored the water quality and plankton community of Conesus Lake every two weeks between May and September 2014. Their report summarizes their findings and compares the 2014 results to the long-term record to assess the status of the lake's productivity and food web.

Lake Chemistry and Trophic State

Monitoring of lake chemistry included measurements of water temperature and dissolved oxygen, phosphorus, chlorophyll-α, nitrate, and sodium.

Temperature and dissolved oxygen data for 2014 showed that Conesus Lake remained thermally stratified during the May through September sampling period, meaning that the water column developed and maintained distinct layers of different temperature conditions. Thermal stratification occurs in lakes deeper than about 10 m at this latitude, and affects the dissolved oxygen conditions in many productive lakes.

In the springtime, the upper layers (or *epilimnion*) warm in the sun and are well-mixed with wind and wave action, which allows atmospheric exchange to maintain oxygen levels. The deeper layers (or *hypolimnion*) of the lake remain cold and isolated from the atmosphere. Since the deeper waters do not mix with the atmosphere during the summer stratification period, dissolved oxygen levels are not replenished. Productive lakes lose more oxygen from the lower waters than lakes that are less productive; this is because more organic material (algae) is produced and subsequently decomposed in productive lakes. The process of decomposition draws oxygen from the water. If dissolved oxygen becomes depleted, as is common in Conesus Lake, chemical changes at the sediment surface can release sediment-bound phosphorus to the water column. In the fall, as the upper layers cool, the temperature gradient between the layers decreases until the winds are able to mix the lake from top to bottom, an annual occurrence known as *fall turnover.*



Thermal Stratification of a Lake

Image: Steuben NY Loon Lake Association and Loon Lake Watershed Improvement Alliance website (http://loonlakesteubenny.com)

FINDINGS OF THE 2014 LAKE MONITORING STUDIES (CONTINUED)

Phosphorus is an essential nutrient for aquatic plants and algae, and high levels of phosphorus can lead to undesirable macrophyte density and nuisance algal blooms. During the summer 2014 monitoring program, the concentration of total phosphorus in the upper waters of Conesus Lake averaged 21.9 µg/L, slightly above the New York State guidance value of 20 µg/L for recreational uses. Since 1985, summer average total phosphorus levels in the upper waters of Conesus Lake have fluctuated between 20 and 30 µg/L.

Chlorophyll-α, an indicator of algal abundance, is also used to assess a lake's trophic state. In lakes where phosphorus is the limiting nutrient, such as Conesus Lake, algal abundance generally reflects phosphorus concentrations. Since 1985, the average summer chlorophyll-α concentrations have varied from 3.0 to 14.7 µg/L. The lake's chlorophyll-α averaged 7.8 µg/L over the 2014 monitoring period. Much of the recent variability observed in chlorophyll and phosphorus concentrations likely reflects annual climatic variability and the bimonthly sampling design.

Secchi disk transparency, a measure of water clarity, is a third parameter used to assess a lake's trophic state. The 2014 summer average Secchi disk transparency in Conesus Lake was 2.2 m.

Table 1. Trophic State Index (TSI) Values From 1985 to 2014

	Phosphorus	*Chlorophyll-α*	*Secchi Disk*
TSI Values 2014	48.7	50.7	48.6
TSI Statistics 1985-2012:			
Average	49.4	51.6	45.4
Minimum	45.1 (2012)	45.4 (1985)	43.4 (1985)
Maximum	53.5 (1985)	56.3 (2000)	48.0 (1993)
Number of Years	12	11	8

Mesotrophic TSI values range from 30-50, indicating moderately clear water with increasing probability of hypolimnetic anoxia during the summer.

Taken together, phosphorus, chlorophyll-α, and Secchi disk transparency are used by managers to calculate the Carlson Trophic State Index (TSI). In 2014, TSI values for Conesus Lake (Table 1) indicate that the lake is classified as mesotrophic. Historical TSI values confirm that Conesus Lake remains on the border between the mesotrophic (moderately productive) and eutrophic (highly productive) states.

The lake's productivity is also demonstrated by the low concentrations of dissolved oxygen present in the deep waters during the stratified period. Conesus Lake has exhibited oxygen depletion of the deep waters since the first scientific monitoring surveys more than a century ago.

Various chemical forms of nitrogen were also measured in 2014. Nitrate is a compound which occurs naturally and may be augmented by point and nonpoint sources such as septic systems, fertilizers and manure. In Conesus Lake, nitrate concentrations were consistently below 0.11 mg/L in 2014; this concentration is well below the water quality standard of 10 mg/L developed to protect human health.

Sodium levels are stable, but remain above health guidelines for sensitive consumers. Sodium enters a watershed mainly through its use as a deicing salt for roads; deicing materials are applied heavily in the watershed, and sodium levels have increased since 1985. In 2014, the average sodium concentration (24.8 mg/L) was lower than in 2012 (27.9 mg/L). This slight reduction suggests that recent efforts to reduce deicing salt usage on area roads may be effective. However, the level of sodium remains above the EPA's Drinking Water Equivalency Level of 20 mg/L, so continued efforts to reduce the application of salt as a deicer on area roads will be needed to bring down sodium concentrations in the lake. Along with other indicators, these analyses suggest that Conesus Lake water quality and trophic state are improving.

Plankton Community & Alewife/Walleye Bio-management

The presence of cyanobacteria (blue-green algae) was again confirmed in 2014. Cyanobacterial blooms have become an unwelcome occurrence in many New York State lakes in recent years, and the factors triggering the blooms are not fully understood. Dr. Makarewicz and his students examined the types of phytoplankton (microscopic plants) and zooplankton (microscopic animals) present in Conesus Lake. The phytoplankton community was a mix of species, including cyanobacteria. The zooplankton community was likewise comprised of a mix of species; most of the animals were very small in size.

Since small zooplankton are less efficient at grazing phytoplankton, a community dominated by smaller species typically means that the lake has more algae suspended in the water column, thus diminishing water clarity. The preponderance of tiny zooplankton in Conesus Lake is attributed to the presence of the alewife (a small fish in the herring family) ; the alewife preferentially feed on larger zooplankton. The ongoing efforts to control the alewife population by increased stocking of the predatory walleye have not yet been successful. The walleye have not reduced alewife abundance to a level that would allow larger zooplankton to rebound and thus increase grazing pressure on phytoplankton.

Filamentous Algae Conditions

Filamentous algae are the mats of filmy green "scum" that can be found floating on the surface of lakes, often associated with beds of macrophytes growing close to the surface. As part of the 2014 field program, Professor Sid Bosch planned to estimate the biomass of filamentous algae growing on the macrophyte beds at five nearshore sites located near stream inflows. Dr. Bosch developed a photographic method to estimate the biomass of filamentous algae using standard quadrats, and had used this method successfully since 2000. In 2014 the algal mats were not visible at or near the water surface.

Filamentous algae.

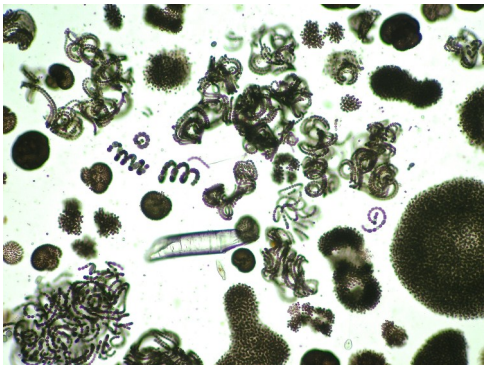
Image: Jason Cruz and G. Winfield Fairchild (http://darwin.wcupa.edu/faculty/fairchild/ponds/Aquatic%20Plants.htm)

Based on 15 years of observation, Professor Bosch noted that filamentous algae and aquatic plants rarely fail to reach the lake's surface during the summer. Occasionally, some nearshore areas of Conesus Lake have remained clear of the surface mats, but until 2014 this condition had not been recorded lake-wide.

A possible explanation for the low-growing macrophytes and absence of filamentous algae in 2014 relates to the unusual weather patterns during the spring and summer. The substantial volume of runoff from high spring rainfall events resulted in turbid water, as well as unusually high lake levels. This combination of cloudy water and high lake levels early in the summer season reduced the depth of light penetration, thus slowing aquatic plant growth. The amount of light reaching the lake bottom continued to be reduced later in the summer season, due to abundant phytoplankton that persisted from July to September. As a result, the aquatic plant canopy and floating mats of filamentous algae typically seen in Conesus Lake did not develop in 2014.

More on Cyanobacteria

The persistent bloom of cyanobacteria in Conesus Lake in 2014 is a cause for concern, as certain species can exude harmful chemicals– neurotoxins and hepatoxins– which pose a risk of harm to human health. Cyanobacteria can form blooms and surface scums, usually blue-green in color, but may also be green, blue, reddish-purple, or brown. Blooms can look like "pea soup," green or blue paint, or form puffy floating clumps. Blue-green algae is often confused with filamentous algae which can also float on the surface. If the bloom has a hair-like or stringy appearance, it is likely non-toxic filamentous algae. *(Information abstracted from the Conesus Lake Watershed Council Fact Sheet on Blue-Green Algae)*

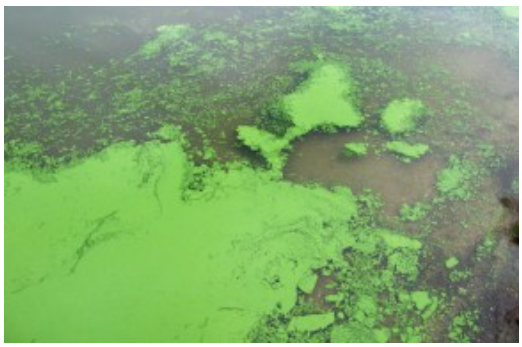


Microscopic view of cyanobacteria.

Image: Professor Sid Bosch

Both the NYSDEC and NYSDOH have been very active in responding to the increased frequency and duration of cyanobacterial blooms in recreational and water supply lakes across New York. The agencies have expanded the Citizens Statewide Lake Assessment Program (CSLAP) to encourage additional sample collection in suspected bloom areas. In addition to analyzing water samples for the presence of toxins and using microscopy to identify species, the state is working with SUNY partners to develop additional regional laboratory capacity for analysis. An informative web site has been developed to disseminate factual information on harmful algal blooms and provide weekly updates on the status of affected water bodies http://www.dec.ny.gov/chemical/77118.html.

Environmental scientists and engineers at NYSDEC continue to gather nutrient, weather, and lake morphometric data to better understand the underlying causes of the recent blooms, and are partnering with experts in the field. A focused monitoring effort is planned for Conesus Lake during the summer of 2015 to track the development of cyanobacterial blooms and document the environmental conditions. The potential impact of upwelling phosphorus-rich water from deep in the lake on bloom creation will be examined.



Cyanobacterial blooms can look like spilled paint

Image: Dr. Jennifer Graham, USGS

Cyanobacterial bloom in Conesus Lake.

Image: Bosch et al, 2012. SUNY Geneseo.

2014 FOCUS ON CONESUS LAKE BACTERIAL MONITORING

Bacteriological Monitoring

The Livingston County Department of Health (LCDOH) collects samples of nearshore waters 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.

Results are compared to the state ambient water quality standards for bacteria, which are used by the New York State Department of Environmental Conservation (NYSDEC) to evaluate whether a waterbody supports its designated use for recreation and by the New York State Department of Health (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 sampling program for the Conesus Lake beaches collects an average of three samples a month during the summer recreational season.

The summer-averaged results for all beach locations ranged between non-detect (<5cfu/100mL) and 80cfu/100mL. No observation exceeded the single sample limit of 1000 cfu/100 mL. The highest bacterial count at a designated bathing beach during the summer of 2014 was 190 cfu/100 mL, collected off a dock at Stella Maris Beach. This maximum value is below the NYSDEC ambient water quality standard of 200 cfu/100 mL, which is calculated as a geometric mean. Therefore, we are able to report full compliance with fecal coliform bacteria standards at the three monitored bathing beaches.

The LCDOH also collected samples at locations on Camp Run Drive in 2014, following reported overflows of the sanitary sewer. Samples were collected at the end of docks on May 20th (one property) and August 5th (two properties). The May sample results were reported at 15 cfu/100 mL. In August, results were 5 and 15 cfu/100mL. As noted above, these counts fall below the single sample limit of 1000 cfu/100 mL that is applied to public bathing beaches.

A semi-panoramic view of Conesus Lake; this was taken from Long Point Park, on the west side of the lake.

Image: Benjamin D. Esham (http://commons.wikimedia.org/wiki/File:Conesus_Lake_panorama.jpg)

Invasive Species

Invasive species, by definition, are non-native, introduced species that cause harm to the environment, human health, and/or economy. Invasive species grow relatively unchecked and disrupt the native ecosystem until the environment begins to evolve and adapt.

Activities to monitor and control the spread of invasive species were implemented during 2014. These included the August 2014 Hydrilla Hunt, the installation of Invasive Species Disposal Stations at three boat launches, and continuation of the Watercraft Steward program.

Hydrilla Hunt

Hydrilla (*Hydrilla verticillata*), also commonly called water thyme, is a submersed perennial herb that roots in the sediment, and has long stems (up to 25 feet in length) that branch at the surface and form dense mats. Hydrilla is often confused with the common native water weed, *Elodea canadensis*. The plant's aggressive growth can form thick mats that block sunlight to native plants below, effectively displacing the native vegetation of a waterbody. (*Information abstracted from The New York Invasive Species Clearinghouse web site*).

On August 10, 2014, the Conesus Lake Association conducted a Hydrilla Hunt on Conesus Lake. Two areas were searched: East Lake Road Boat Launch and Freedom Point near the lake outlet. No hydrilla plants were found during the field surveys.

Conesus Lake Hydrilla Hunt participants (from left to right): Keith Miller, Eleanor Randall, Mike Saviola, Mike Parker, Eric Randall, Jim Feuerstein, Charlie Braun, Karl Hanafin (not shown).

Image: Conesus Lake Association

Invasive Species Disposal Stations Installed at Boat Launches

Invasive species disposal station installed in 2014.

Image: Conesus Lake Association

The Conesus Lake Association worked with the New York State Office of Parks, Recreation and Historic Preservation (NYSOPRHP) and the NYSDEC to install wooden invasive species disposal stations at three public boat launches on Conesus Lake: the East Lake Road Boat Launch (near MacPherson Point); the Conesus Inlet Wildlife Management Area off West Lake Road (Rt. 256 at the south end of the lake); and the Pebble Beach fishing access site (northwest corner of the lake). Livingston County funded the disposal station signage, using grant funds from the Finger Lakes-Lake Ontario Watershed Protection Alliance (FLLOWPA).

Watercraft Steward Program

The primary pathway by which hydrilla and other invasive species reach inland waterways is by "hitchhiking" on recreational boats and trailers, or in the live wells of fishing boats. Public education and outreach efforts are meant to inform the community about the risk of invasive species reaching a lake via recreational boating.

The Finger Lakes Institute inaugurated a Boat Launch Stewards Program on Conesus Lake in 2013. Funded through the Great Lakes Restoration Initiative, the program employed Watercraft Stewards to speak with incoming boaters about invasive species and offer a voluntary boat inspection, including manual removal of visible mud and vegetation.

Watercraft stewards examine a trailer hitch for the presence of invasive species.

Image: Conesus Lake Association

The Finger Lakes Institute did not receive funding to continue the Boat Launch Stewards Program in 2014. The Conesus Lake Watercraft Steward Program was continued in 2014 thanks to an effective collaboration among the Livingston County Planning Department, the Livingston County Cornell Cooperative Extension (CCE), SUNY Geneseo, the Conesus Lake Association (CLA), and the Livingston County Office of Workforce Development. Livingston County CCE provided in-kind services to house and supervise two stewards whose salaries were funded by the CLA and Livingston County FLLOWPA funds. Two additional watershed stewards were employed through the Livingston County Office of Workforce Development's Summer Youth Employment Program, which is funded through NY Works. The program provides wages, Workman's Compensation and insurance coverage, and employment prescreening for economically disadvantaged youth ages 16-20.

The two Summer Youth Employment Program participants, trained and supervised by CCE, assisted with staffing at the state boat launch for five weeks during July and August. In 2014, the Watercraft Stewards staffed the boat launch from Memorial Day through Labor Day. They were present for twelve hours each Friday, Saturday, and Sunday as well as four hours each Tuesday evening. A total of 3,915 boats were inspected, and approximately 9,600 boaters were reached with information about invasive species control.

Watercraft stewards with the Invasive Species Disposal Station at the East Lake Road boat launch. Pictured left to right: Isaiah Durkee, Anna Deats, Matt Fisher, Emily Artruc.

Image: Conesus Lake Association

# in Plan	Recommendation	Priority	Action Taken
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	• An application to the Great Lakes Restoration Initiative for sediment control on North McMillan Creek was explored. • Finger Lakes PRISM and Great Lakes Small Grants Program grant applications were submitted to support the 2015 Watercraft Steward Program.
A-1	Review and amend zoning regulations to improve consistency in near-lake areas.	High	• Members of the Planning Department staff are working with the Town of Geneseo on a comprehensive zoning update.
A-3	Develop public education campaigns on BMPs for lake and watershed residents.	High	• The public education kiosk constructed at Long Point Park was completed with the installation of the final educational content panels in September 2014. • The Planning Department website continues to be maintained as an up-to-date source of public education and outreach information. The Invasive Species Sub-Committee discussed invasive-species-related content, and the Watershed Manager worked on Phase 2 of content updates. • The Planning Department sponsored a workshop on site plan review criteria to address soil and erosion in November 2014. • The Planning Department worked in partnership with the CLA and its Water Quality Committee on invasive species disposal station signage and uniforms for the Watercraft Stewards. • In 2014, educational material on the effect of landscaping practices on water quality, focusing on rain garden content, was assembled by the Watershed Manager. A list of native plant species suitable for rain gardens is under development for the website. • Educational workshops and programs for youth audiences were discussed by the Public Education and Outreach Committee. The Watershed Inspector and Watershed Manager have been working with Camp Stella Maris to develop a water quality educational program for campers.
A-3	Develop public education campaigns to include erosion control and lake-friendly landscaping.	High	• The Public Education and Outreach Committee reviewed and approved an educational sign for the Long Point Park Rain Garden and an informational brochure for landowners wishing to install rain gardens on residential properties. A distribution plan was developed for the completed brochure, and the sign was printed.

Key to Acronyms:

BMPs - Best Management Practices
CLWC—Conesus Lake Watershed Council
DEC—Department of Environmental Conservation
FLCC—Finger Lakes Community College
LCPD—Livingston County Planning Department
PRISM—Partnership for Regional Invasive Species Management
SWCD - Soil and Water Conservation District
CLA - Conesus Lake Association
CLWMP - Conesus Lake Watershed Management Plan
EPF - Environmental Protection Fund
FLLOWPA - Finger Lakes-Lake Ontario Watershed Protection Alliance
NRCS - Natural Resource Conservation Service
SUNY—State University of New York
USDA - United States Department of Agriculture

# in Plan	Recommendation	Priority	Action Taken
B-1	Secure funding to help mitigate the financial impacts of changes in agricultural practices on the producers.	High	• In progress. Agencies will continue these activities annually as part of their existing programs.
B-2	Implement practices that will reduce nonpoint source pollution from farms.	High	• Water control and terraces were installed on a 47-acre farm in cooperation with road culvert and catch basin upgrades by the County Highway Department. • Terraces designed to reduce the risk of gully erosion were installed on a 90-acre farm.
C-1	Develop and implement program to restore and stabilize streambanks in the watershed.	High	• The Planning Department and Town of Conesus met with engineering consultants to discuss the project scope for North McMillan Creek. A grant extension through September 2015 was issued. • The Planning Department and engineering consultant worked on securing easements and permits for the project on North Gully Creek. • The Town of Geneseo and the Planning Department received all landowner easements for streambank stabilization construction on lower Long Point Creek. Construction began in September 2014.
C-3	Develop public education campaigns on the impact of human activities on the health of the Lake.	Medium	• The Conesus Stewardship Initiative focused on invasive species prevention through the Watercraft Steward program and the AIS disposal stations.
E-2	Develop a public education campaign targeting the effects of recreational boating on water quality	High	• A new publication was developed; this includes the updated Conesus Lake bathymetric map along with boating, water quality, and invasive species prevention best management practices. Distribution of this publication, which is printed on waterproof paper, began in 2014.
E-2	Develop a public education campaign promoting invasive species awareness	High	• The Planning Department developed an educational unit on invasive species prevention to incorporate into the Boater Safety course. The Watershed Manager presented the invasive species information at the July 2014 Boater Safety course. • The Watershed Manager and CLA made a presentation to the Livingston County Environmental Management Council at their January 2014 meeting, which was open to the public. The presentation focused on the Conesus Lake Watershed Invasive Species Prevention and Response Plan, and detailed the collaborative efforts underway for prevention and monitoring. • The CLA staffed a booth at a youth fishing derby at Vitale Park in May 2014.

# in Plan	Recommendation	Priority	Action Taken
G-1	Investigate and implement effective methods to control the spread of non-native (exotic) organisms.	High	• The Planning Department, Cornell Cooperative Extension (CCE), SUNY Geneseo, and the Conesus Lake Association (CLA) coordinated with the Workforce Development Summer Youth Employment Program to hire two Watercraft Stewards to join the CCE stewards at the boat launches in July 2014. At a post-season meeting in September, this 2014 program was reviewed, and modifications for the 2015 program were discussed. • The CLA held a Hydrilla Hunt rake toss survey on August 10, 2014—no hydrilla were found. • The CLA held two training sessions for the Aquatic Invasive Species Volunteer Monitoring Program, and trained the Sheriff's Marine Patrol in invasive species identification • The Finger Lakes Institute hired Hilary Mosher to serve as the PRISM coordinator for the region including Conesus Lake. • The Watershed Manager continued to participate in PRISM activities in 2014, including the Steering Committee and the Aquatic Working Group, conference calls, stakeholder meetings, and a strategic planning session. • NYSOPRHP is developing regulations for its boat launches. • The CLA, NYSOPRHP, and NYSDEC worked together to install wooden invasive species disposal stations at three boat launches, while the Planning Department funded the signage for these stations.
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	• The CLA did not fund its FLCC walleye stocking program for 2014; funding continued for the fall private hatchery stocking program. • The Watershed Manager attended a NYSDEC meeting on the State of the Western Finger Lakes Fisheries. • NYSDEC stocked 65,000 walleye fingerlings in June. • The Watershed Manager and Watershed Inspector attended a NYSDEC walleye gill net survey at Long Point Park in September. • The CLA stocked 1,300 walleye (8-10 inch) in November.
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	• Annual monitoring meeting was held in January 2014. • On April 9th, the Livingston County Board of Supervisors passed a resolution authorizing the contract with the SUNY Research Foundation. • SUNY Brockport completed its 2014 report on the trophic status of Conesus Lake, assessing the long-term trends in lake chemistry and the phytoplankton community. SUNY Geneseo planned filamentous algae study was not completed in 2014 due to lake conditions. • The Livingston County DOH continued the public bathing beach monitoring and blue green algae programs during 2014.
H-2	Prepare and distribute an annual Conesus Lake and Watershed Report Card.	High	• 2013 Report Card was completed and presented to the CLWC.

For additional information contact:
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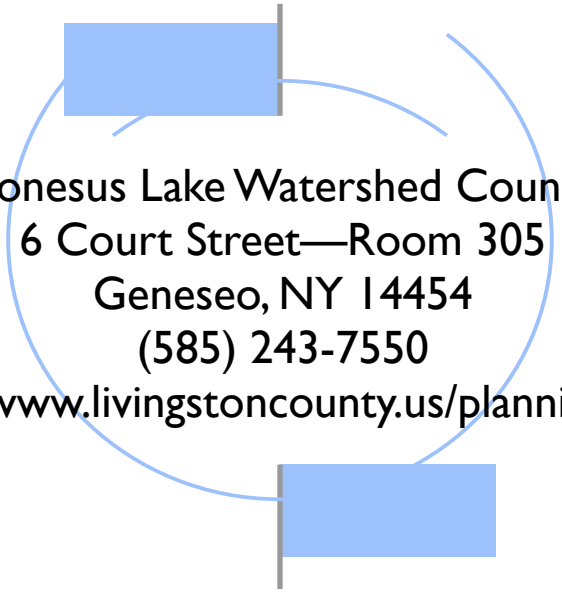

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