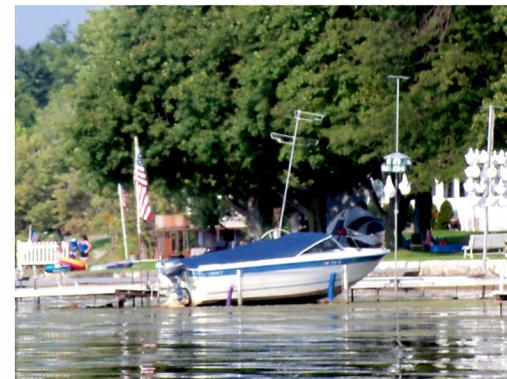


Conesus Lake Annual Report Card



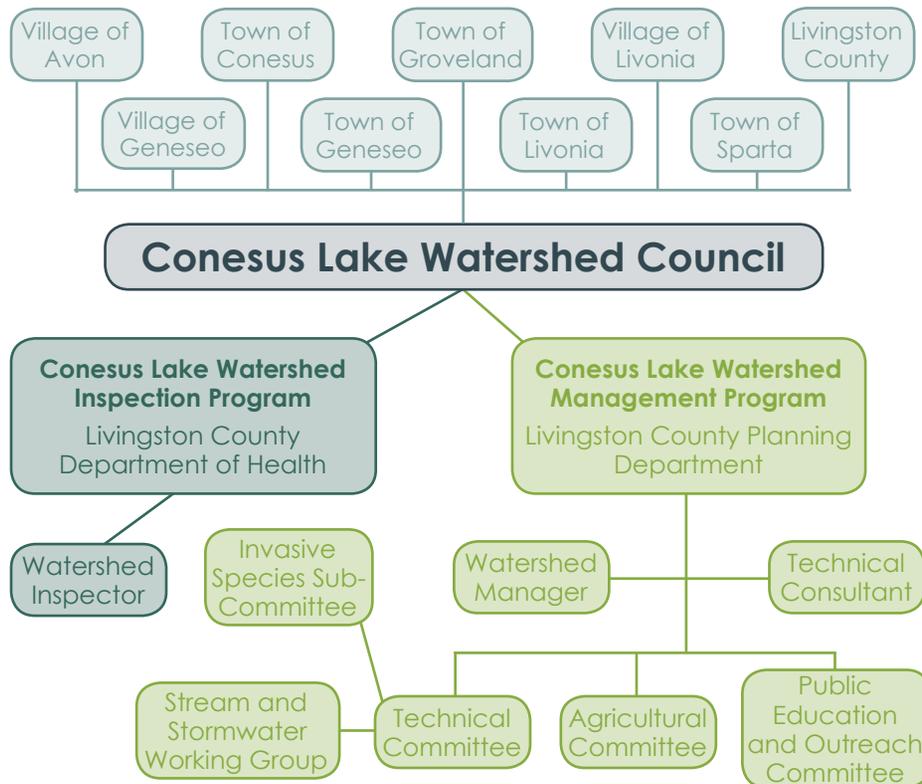
Conesus Lake Watershed Council

2015



About the Conesus Lake Watershed Council

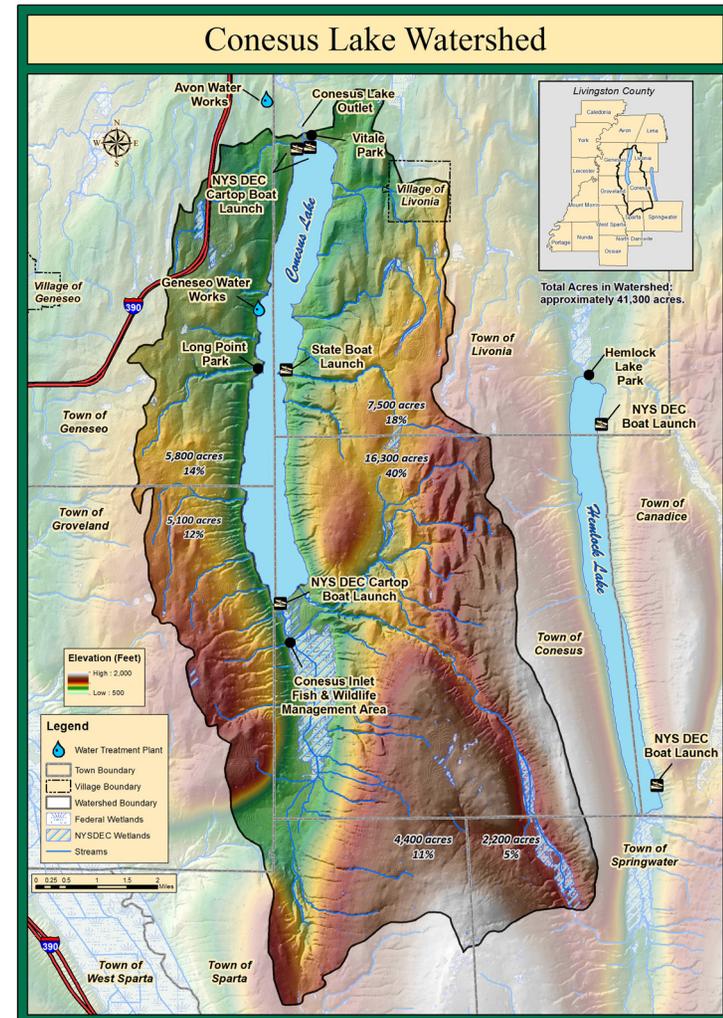
The Conesus Lake Watershed Council is an inter-municipal organization established in 2003 to govern the implementation of the Conesus Lake Watershed Management Plan. Council membership is composed of towns and villages with land within the watershed boundaries and water purveyors who use Conesus Lake as a public water supply. The Council oversees the Conesus Lake Watershed Management Program and the Conesus Lake Watershed Inspection Program. Three committees and two sub-committees comprised of local stakeholder agencies and organizations report to the Watershed Council.



Conesus Lake Watershed Council governing structure

Purpose of this Document

Recommendation H-2 in the Conesus Lake Watershed Management Plan (2004) 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 2015. Highlights include:

Conesus Lake Annual Monitoring

SUNY Brockport monitored water quality parameters both in-lake and in the long-term USDA study tributaries.

SUNY Geneseo studied the effect of wind driven internal phosphorus loading patterns on blue green algae blooms.

Invasive Species

- Continued implementation and update of the Conesus Lake Watershed Council's Invasive Species Prevention and Response Plan (2013).
- Chinese Mystery Snail was documented in Conesus Lake.
- No new, high priority aquatic invasive species discovered in 2015.
- The Watercraft Steward Program added additional coverage in 2015 and inspected 5,131 boats, 1,216 more than in 2014.

Watershed Inspection Program

- The Watershed Inspector responded to 25 complaints, monitored 41 construction sites and issued 3 violations.
- The Department of Health continued its public bathing beach program through 2015, processing 45 water samples.

Harmful Algal Blooms

- The Conesus Lake Watershed Council updated the Blue Green Algae Early Detection and Rapid Response Plan.
- New advisory signage and educational brochure updates were developed by the Department of Health for use during blue green algae blooms.

Stream Restoration and Stormwater Management

- Streambank remediation construction was completed on lower Long Point Creek in the Town of Geneseo and began on North Gully in the Town of Livonia as part of the EPF Streambank Remediation Grant Program.
- A stream and stormwater working group was established to oversee a new stream and stormwater program initiative.
- The Town of Livonia received grant funding from the New York Department of State for a stormwater study for the Wilkins Creek sub-watershed.

Agricultural Best Management Practices

- The Natural Resources Conservation Service supported the installation of cover crops on 649 acres of watershed farms.
- The Livingston County Soil and Water Conservation District installed 950 feet of underground outlet, 1,750 feet of sub-surface drainage, 1.4 acre water and sediment control basin, and a terrace system on three watershed farms.



Water Quality Monitoring

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, survey the species diversity and relative abundance, and study other emerging issues.

Stream Water Quality Assessment of Long Point Gully, Graywood Gully, and Sutton Point: Conesus Lake Tributaries

Theodore W. Lewis and Joseph C. Makarewicz

The Department of Environmental Science and Biology, The College at Brockport, State University of New York

December 2015

Background:

In 2011, the SUNY Brockport team developed a graphical index of stream discharge versus parameter concentration based on historical spring data from 2003-2010. This approach, referred to as the Stream Watershed Quality Index, is a viable, cost-effective tool for continued evaluation of the water quality and performance of the best management practices. Indices were developed for six parameters: total suspended solids (TSS), total phosphorus (TP), soluble reactive phosphorus (SRP), nitrate, total Kjeldahl nitrogen (TKN), and sodium. The indices were applied to six sub-watersheds with historical data: Cottonwood Gully, North McMillan Creek, Graywood Gully, Creek, Sutton Point Creek, and Sand Point Gully. The results of this program are used to assess whether conditions in streams draining these watersheds are improving, getting worse, or not changing.

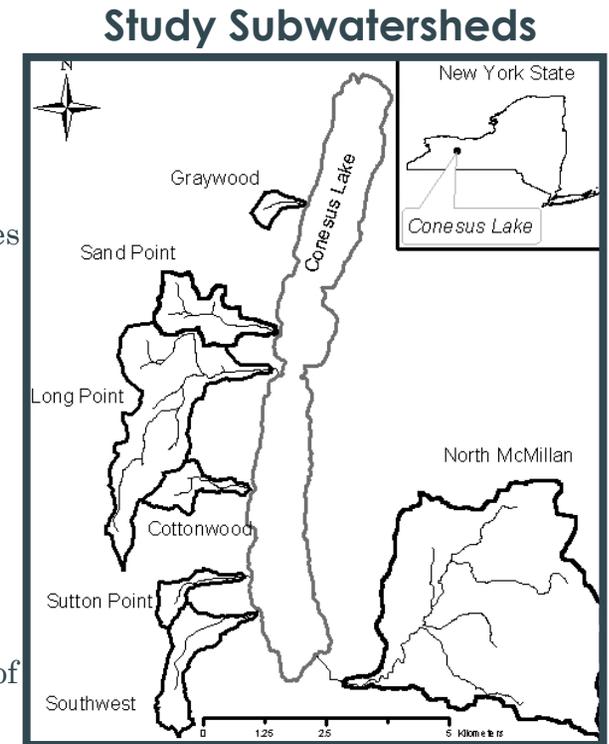
2015 Objective:

Utilize the Stream Watershed Quality Index for watershed health on three sub-watershed tributaries (Long Point Gully, Sutton Point and the Graywood Gully) where best management practices (BMPs) were recently implemented. The implementation of this tool will allow the Council to evaluate the status of watersheds; that is, are they improving, getting worse, or not changing. In addition, these tools can be used to evaluate the impact of known changes in watersheds, such as BMPs, on water quality. An evaluation using a tool of this nature should provide further direction to the Conesus Lake Watershed Management Plan.

Graywood Gully was under BMP construction during the summer of 2015 while BMPs were implemented in the winter of 2014 in Long Point Gully and in the summer/fall of 2014 in Sutton Point.

Methods:

Water samples were taken weekly from April 29 to July 14, 2015. In addition, discharge measurements were taken using measured stream levels at the time of sampling. These levels were converted to discharge using rating curves and statistical relationships developed during the five years



of intensive stream monitoring from 2002 to 2006. A total of fourteen sets of water samples were taken, 6 of which were under rain event conditions. Samples were preserved, and analyzed using approved standard methods (APHA 1999). The previously constructed Stream Water Quality Assessment Index was utilized on three tributaries (Long Point Gully, Sutton Point, and Graywood Gully).

Results:

In general, levels of total phosphorus, total suspended solids and nitrate showed improvements that may be attributed to the implementation of additional BMPs that were designed to control overland runoff and sediments. TP did not decrease in Graywood Gully, which may be due to the fact that the BMP implementation was not complete until the summer of 2015.

Soluble reactive phosphorus increased in the red zone, indicating degrading water quality for this parameter over historical values in all three watersheds in 2015.

Sodium, a component of deicing salt, was elevated in the stream water of Long Point Gully and Sutton Point.

The data are plotted on the index as black markers; the data in the “green” zone represent improving conditions, while data in the “red” zone indicate degrading conditions.

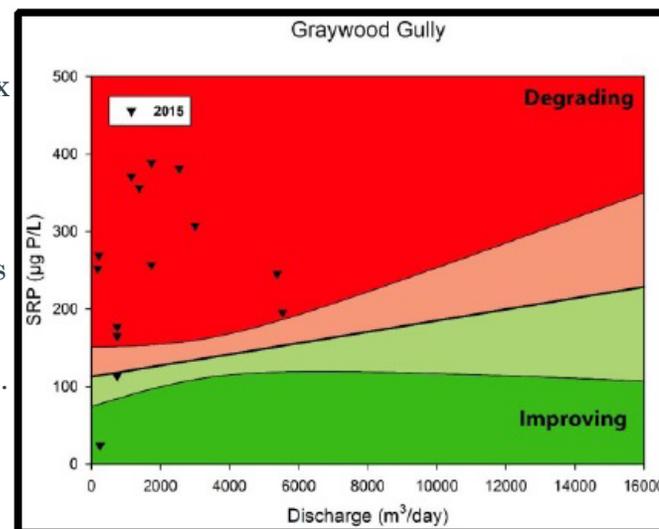
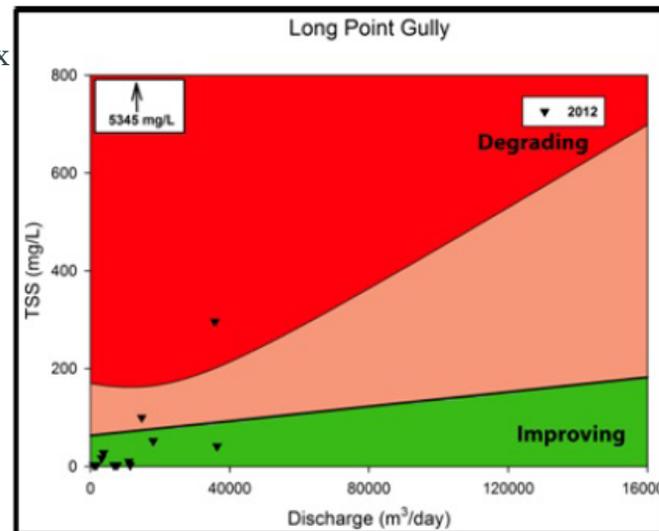
Recommendations and Findings

Progress continues to be made in the management of the Conesus Lake watershed. This is especially true for nutrients that are associated with loss of particulate matter from the watershed as well as erosion itself.

Best management practices that are designed specifically to control the soluble fraction of phosphorus should be considered a priority in the Conesus Lake watershed.

The Stream Watershed Index appears to be a valuable tool in evaluating the watersheds of Conesus Lake, allowing comparisons with past data and thus assisting in decision making concerning watershed management.

The Stream Watershed Index also appears to be valuable in assessing the impact of additional BMPs implemented in the watersheds of Conesus Lake. If financially appropriate, monitoring of watersheds should continue as a mechanism to evaluate land-use practices, to advocate changes, evaluate additional BMP implementation and to assist in future planning.



Linkage Between Water Column Mixing of Phosphorus and Onset of Cyanobacteria Blooms In Conesus Lake, (NY)

Isidro Bosch, Daniel Connors, Conor McCabe, Gordon Wong, Alyssa Bowling and Angela Kubik

Department of Biology, State University of New York at Geneseo

December 1, 2015

Background:

Potentially toxic cyanobacterial blooms pose a threat to water quality and recreational use of waters in the Conesus Lake watershed. Cyanobacterial blooms, sometimes referred to as harmful algal blooms or blue green algae blooms, occur naturally, but have seen an increase in frequency since the 1990s. Cyanobacterial blooms can be triggered by urban and agricultural runoff, malfunctioning septic systems, high water temperatures, or internal phosphorus nutrient loading.

Blooms of the cyanobacteria *Anabaena* have been a common summer occurrence in Conesus Lake for more than a decade. The extent of these blooms varies from one year to the next. In some years the bloom have been sparse and short lived, while in other years surface slicks have covered the northern region of the lake. Typically the colonies die off within a week or two, but in 2014 the summer bloom persisted well into September and forced multiple days of beach closings, especially in the north basin. There is no record of an *Anabaena* bloom having produced significant levels of cyanotoxins in Conesus Lake. However the risk posed by high density slicks of any cyanobacteria species cannot be ignored. By contrast, blooms of *Microcystis aeruginosa* are less frequent and typically have occurred in the fall, but there are several reports of these blooms producing elevated

concentrations of microcystins that could pose risks to human health.

The predictable onset of *Anabaena* blooms locally in mid-summer indicates that some consistent set of conditions might be acting as

a trigger in Conesus Lake. Unlike, other common species of cyanobacteria, *Anabaena* are capable of fixing their own nitrogen, meaning they use chemical forms that are not available to other species. Therefore, the trigger may be related to the availability of phosphorus, which is in very limited supply during mid-summer. Phosphorus can either enter the lake externally from sources off the landscape via streams and tributaries or by internal loading. The sediment on the bottom of the lake is laden with stored phosphorus. When conditions at the bottom of the lake are anoxic, meaning oxygen is not present, phosphorus stays bound in the sediment particles and is not available to algae for growth. During the summer months the lake is stratified and conditions at the bottom of the lake are generally anoxic, however, wind can mix oxygenated water from the surface of the lake down into the bottom sediments in areas with shallower depths. The presence of oxygen releases phosphorus from the sediment into the water column where it can fuel cyanobacteria and other algal growth.

The study looked at whether phosphorus accumulated in deeper waters through internal loading processes could be delivered to surface waters by wind-mediated mixing and trigger for summer blooms. This sequence of events is more likely to unfold in the north basin of Conesus Lake, where water column stratification may be less stable due to shallower waters.



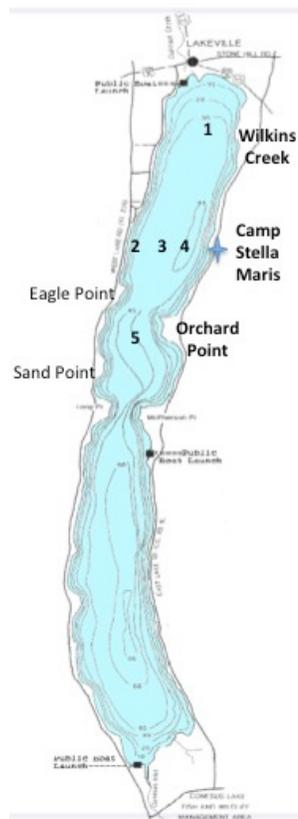
Anabaena under the microscope.

2015 Objective:

Determine if summer blooms of cyanobacteria in the shallow north basin of Conesus Lake are associated with episodes of wind-driven, partial mixing of the water column that deliver soluble phosphorus nutrients to cyanobacteria in surface waters.

Methods:

Five stations in the north basin were sampled from June 16 - Oct. 20, 2015. A combination of wind data, weekly water column profiles and biweekly laboratory chlorophyll-a assays, analysis of surface and near bottom nutrient concentrations and direct counts of cyanobacteria colony and cell numbers were used to explore the link between the mixing of the water column and the onset of blooms.



Sample Sites

Results:

On three occasions, following days of high winds, a 1-2 m deepening of the thermocline was observed, which indicated that partial mixing of the water column had occurred. These partial mixing events were associated with increases in surface concentrations of dissolved phosphorus, elevated phytoplankton chlorophyll-a concentrations and spikes in the numbers of single cell and colonial cyanobacteria in surface waters. With intensive monitoring of winds and water column stratification it may be possible to forecast potential

cyanobacterial blooms in Conesus Lake.

The dominant colonial cyanobacteria during blooms were species of *Anabaena* that historically have been dominant in Conesus Lake. Colonies of *Microcystis aeruginosa* were seen in nearly all samples, but the numbers throughout the season were relatively low compared to *Anabaena*.

Concentrations of microcystins and anatoxins during blooms were not detectable or were well below the caution thresholds for recreational public health advisory of 6 and 80 µg/L, respectively (EPA). The blooms of cyanobacteria that took place in Conesus Lake in summer and early autumn 2015 did not pose a significant health risk to lake users or to the water supply.

Recommendations and Findings:

With more intensive monitoring of wind and water column stratification it may be possible to forecast potential cyanobacterial blooms in Conesus Lake.

It may be that partial mixing of phosphorus from bottom waters creates conditions that favor nitrogen-fixers like *Anabaena*, whereas species like *Microcystis aeruginosa* that are incapable of fixing nitrogen are more likely to dominate after external loading events which deliver both phosphorus and nitrogen to the lake. Further research is needed to explore the role of these other potential triggers and to establish the relative importance of wind-driven partial mixing in promoting blooms.

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 verticillata in nearby Cayuga Lake Inlet in 2011, the Conesus Lake Watershed Council established an Invasive Species Sub-Committee tasked with drafting and implementing the Invasive Species Prevention and Response Plan (2013). Implementation efforts continued in 2015.

Volunteer Monitoring

The Conesus Lake Association (CLA) trained 9 volunteer monitors to identify invasive species during two sessions held on August 2 and August 6, 2015. A new canoe and kayak monitoring group is being established. Twelve volunteers have been recruited for 2016.

Hydrilla (*Hydrilla verticillata*) is an invasive aquatic plant that roots in the sediment and forms dense mats at the surface of the water that block sunlight to native plants below, crowd out native fish habitat, and impede swimming and boating. On September 20, 2015, Conesus Lake Association volunteers conducted a Hydrilla Hunt on Conesus Lake using rake toss surveys. 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.

Chinese Mystery Snail

Chinese Mystery Snail (*Cipangopaludina chinensis*) was observed at both the north and south ends of Conesus Lake

in 2015. Live specimens obtained by the Conesus Lake Watershed Inspector and Watershed Manager on August 18, 2015, were positively identified by NYSDEC Region 8 biologists. Researchers from SUNY Brockport also independently identified Chinese Mystery Snail in Conesus Lake in 2015.



Chinese Mystery Snail

Chinese Mystery Snail prefers freshwater lakes with soft, muddy or silty bottoms. The United States Geological Survey (USGS) states that the species has had no known ecological impacts on ecosystems in the Great Lakes region where it has been introduced and is relatively benign. There is an unrealized potential for Chinese Mystery Snail to serve as a vector for the transmission of parasites and diseases that can affect other native snail and mollusk species. There are no known control methods for Chinese Mystery Snail.

Using species research and local information, the Invasive Species Sub-Committee employed the Invasive Species Management Decision Analysis Tool developed by The Nature Conservancy and outlined in the Invasive Species Prevention and Response Plan to determine proper course of action for the Chinese Mystery Snail Infestation. Due to the benign ecological effects and absence of control methods, the Sub-Committee recommended not pursuing further management action for the Chinese Mystery Snail. A fact sheet was developed for distribution during the upcoming summer season to inform lake users about the new species and encourage reporting suspected sightings for the purpose of determining the extent of the infestation.

Update to the Conesus Lake Watershed Invasive Species Prevention and Response Plan

The Conesus Lake Watershed Council approved updates to its Invasive Species Prevention and Response Plan at its December 11, 2015, meeting. The August 2015 discovery of Chinese Mystery Snail was the first invasive species sighting to be run through the Plan's response protocol. The Invasive Species Sub-Committee and Technical Committee suggested edits to the Plan following the discovery of Chinese Mystery Snail. Changes included updates to the public notification strategy, establishment of a high priority aquatic species list, inclusion of new legislation passed since 2013, and the addition of Cornell Cooperative Extension of Livingston County and Finger Lakes Partnership for Regional Invasive Species Management (PRISM) as formal partners.

Invasive Species Disposal Stations Installed at Waterfront Parks

Conesus Lake Association volunteers constructed two additional wooden invasive species disposal stations for installation at informal launch sites at Long Point and Vitale Parks. The Livingston County Planning Department funded the signage for the disposal stations, using grant funds from the Finger Lakes-Lake Ontario Watershed Protection Alliance (FLOWPA).

Four wooden invasive species disposal stations have been previously installed at the New York State Office of Parks, Recreation and

Historic Preservation (NYSOPRHP) and the New York State Department of Environmental Conservation public boat launches.

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. 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.

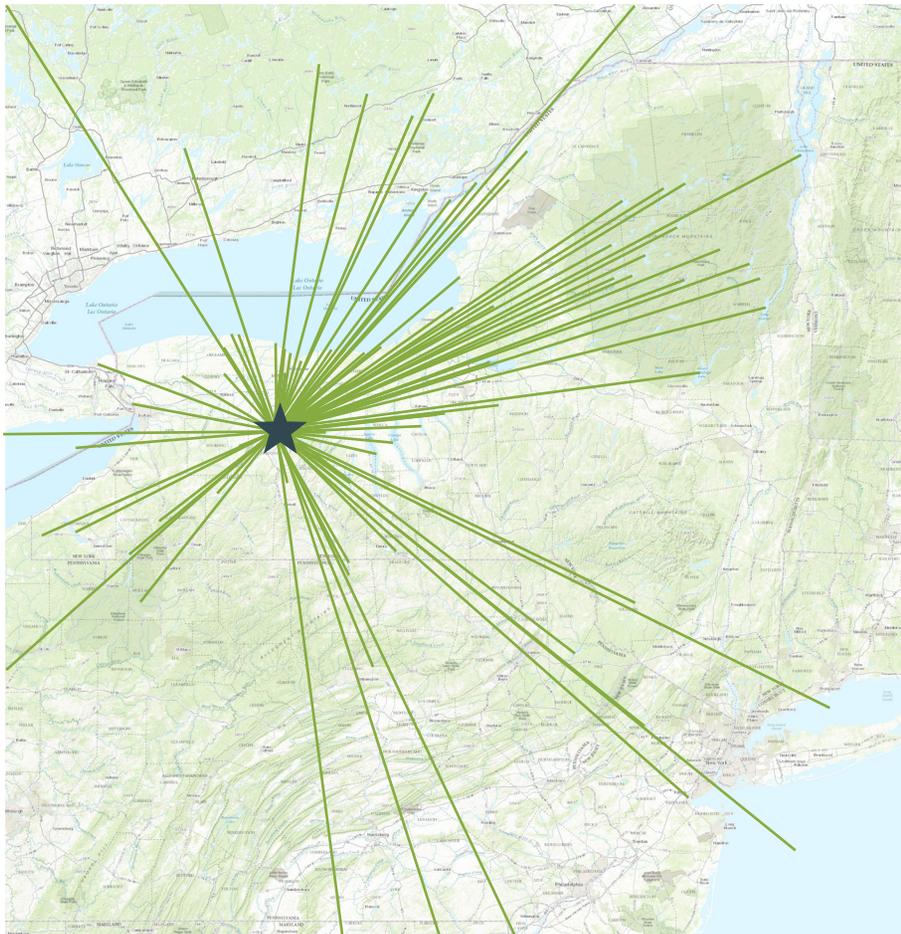
The Conesus Lake Watercraft Steward Program was continued in 2015 through an effective collaboration among the Livingston County Planning Department, the Livingston County Cornell Cooperative Extension (CCE),



2015 Watercraft Stewards

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 three stewards whose salaries were funded by the CLA and Livingston County FLOWPA funds. An additional watershed steward was employed through the Livingston County Office of Workforce Development's Summer Youth Employment Program (SYEP), which is funded through NY Works. The SYEP provides wages, Workman's Compensation and insurance coverage, and employment prescreening for economically disadvantaged youth ages 16-20.

2015 Last Waterbody Visited



The Summer Youth Employment Program participant, trained and supervised by CCE, assisted with staffing at the state boat launch for five weeks during July and August. In 2015, 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. Additional coverage for Monday, Wednesday, and Thursday was added for 2015 based on analysis of NYSOPRHP and 2013 Finger Lakes Institute Watercraft Steward Program launch usage data. A total of 5,131 boats were inspected, and over 12,000 boaters were reached with information about invasive species prevention.

Watercraft Steward Program Data

	2014	2015
Days at launch	58	83
Boats recorded	3915	5131
Non risk boats (last launch Conesus)	2898	3560
Risk boats (last launch other)	1017	1671
% of boats non risk	74%	67%
% of boats risk	26%	33%
Boats found with organisms attached	73	121
Percent of total boats	1.8%	2.4%
Percent of risk launches	12%	10%
Prior contact with a Steward Q1	58%	80%
Prior contact with a Steward Q4	80%	89%
Prevention steps taken prior to launch	N/A	21%
Total Steward hours	676.5	890
Total coverage hours at launch	520.5	797

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), and five surrounding towns, the inspection program became a reality on August 31, 1998. The Livingston County Department of Health 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, blue green algae blooms, flooding, bathing beaches, and other activities including public education.

Inspection Activities

Complaints	25
Construction Projects	41
Violations	4
New Septic Systems	3
Repaired Septic Systems	2
Sewage Overflows	1
Bacteriological Bathing Beach Water Samples	45
Beach Closures	1
Educational Events	3
Special Water Samples	4
Damaging Flooding Events	1

Complaint Breakdown

Sediment and Erosion	16
Drainage	2
Sewage Discharge	2
Agricultural Related	1
Nuisance	1
Weeds/Algae/Odor	3
Total	25

Drinking Water

The New York State Department of Environmental Conservation 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 18,000 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
2015 Usage (gallons)	310,500,000	392,000,000

MGD: (million gallons per day)



Bathing Beach Monitoring

The Livingston County Department of Health (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.

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 best uses 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 bathing beach monitoring program collects weekly samples during the summer recreational season.

The summer-averaged results for all beach locations ranged between non-detect (<5 cfu/100mL) and 240 cfu/100mL. No result exceeded the single sample limit of 1000 cfu/100 mL. The highest bacterial count at a designated bathing beach during the summer of 2015 was collected off a dock at Long Point Beach. The Department of Health is 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 and Big Tree Road in 2015, following reported overflows of the sanitary sewer. Samples were collected at the end of docks June 15th and 16th. Samples on the 15th were 4,200 and 4,600 cfu/100 mL respectively. By the 16th, these values dropped to 300 and 320 cfu/100mL. The Livingston County Water and Sewer Authority has undertaken a 2015 collection system study to determine the alternatives to work toward a solution to the overflow of sewage during storm events that have taken place over the last two years. Implementation of the first phase of the study is underway in 2016.

Beach Closure Days

	2015			2014			2013			2012			2011		
	HAB	Bact.	Turb.												
Long Point	0	0	1	2	0	0	1	0	0	1	0	0	0	0	0
Stella Maris	0	0	0	8	0	0	1	0	0	5	0	0	0	0	0
Southern Shores	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0

HAB: Harmful Algal Blooms Bact: Bacteria Turb: Turbidity

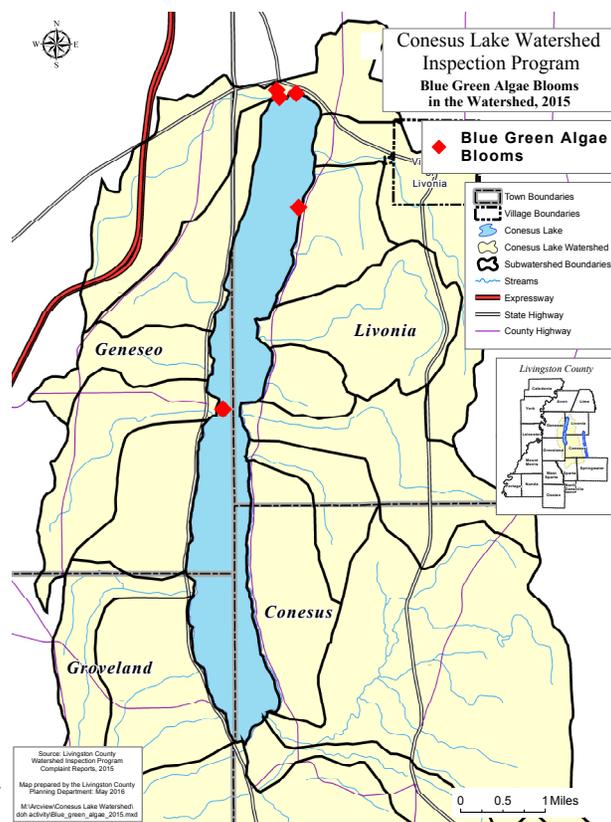


Harmful Algal Blooms

Harmful algal blooms, or HABs, are algal blooms that have the potential to cause illness or harm in humans and animals. Often HABs are composed of blue-green algae, also known as cyanobacteria. These harmful forms of algae are naturally present in very low concentrations in lakes and streams, but can form concentrated blooms or surface scums following certain key environmental and weather conditions that encourage algal growth. 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.

2015 Bloom Season

The Harmful Algal Bloom season in 2015 was mild in comparison to previous years. An HAB was reported on July 22, 2015, in the old Conesus Lake outlet at the Freedom Bridge in Vitale Park. An investigation revealed that the HAB was isolated to that location. On October 8th, HABs were identified on the shorelines at Long Point, Vitale Park and along the Northeast shoreline. In all instances the



Conesus Lake Blue-Green Algae Early Detection and Rapid Response Plan was implemented. No beaches were closed in 2015 due to HABs. Maps depict the location of reported harmful algal blooms in 2015.

Blue Green Algae Early Detection and Rapid Response Plan

The Conesus Lake Watershed Council updated the Blue Green Algae Early Detection and Rapid Response Plan and the Department of Health updated the accompanying public educational brochure. Updates to the plan include new public notification procedures. New advisory signage was developed by the Department of Health for use during blue green algae blooms.

BLUE-GREEN ALGAE BLOOM HEALTH ADVISORY

Blue-green algae bloom(s) have been spotted in this body of water.

- Blue-green algae (BGA) can cause severe skin irritation and other adverse health effects.
- Don't swim, wade or fish near blooms or surface scum
- Don't drink the water
- Keep children and animals away from any blooms or scum
- Rinse with clean water if exposed
- Consider medical attention if you experience symptoms of nausea, vomiting, or diarrhea; skin, eye or throat irritation, allergic reactions or breathing difficulties. Report symptoms to the Livingston County Department of Health.

For more information contact the Livingston County Department of Health, Center for Environmental Health (585) 243-7280
www.livingstoncounty.us/doh.htm
<http://livingstoncounty.us/planning.htm>

Bloom Notice Signage

Stream Restoration and Stormwater Management

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 rightly turned toward stream system restoration and stormwater management to help alleviate effects on water quality and public and private property.

Environmental Protection Fund Streambank Remediation Grant Program

As part of the EPF Streambank Remediation Grant Program administered by the Livingston County Planning Department, the streambank reach on Long Point Creek in the Town of Geneseo between West Lake Road and Conesus Lake was completed in 2015.



Hydroseeding and live stakes on lower Long Point Creek, May 2015

Most of the construction work on North Gully in the Town of Livonia east of East Lake Road was completed through Fall 2015 as part of the EPF Streambank Remediation Grant Program. The project halted for the winter but is expected to be completed with final bank stabilization in 2016.

Permitting and easements for the Upper Long Point Creek, Wilkins Creek and N. McMillan streambank remediation projects, which are also part of the EPF Streambank Remediation Grant Program, moved forward in 2015

Before

Streambank erosion on North Gully Creek, 2006



After

Creekbed moved away from high bank, bank protection added, November 2015



Before

High bank erosion on North Gully Creek, 2013

**After**

High bank protection and floodplain bench added on North Gully Creek, November 2015

**Stream and Stormwater Initiative**

A Stream and Stormwater Sub-Committee was established to oversee a new stream and stormwater program initiative. The Sub-Committee identified existing problems and set programming and educational priorities for the 2015 and 2016 work programs. The Watershed Manager gave a presentation at the Conesus Lake Association's Annual Meeting in September that explained hydrological processes

and their effect on water quality. Residents were shown examples of accessible green infrastructure practices designed to alleviate common residential stormwater and water quality problems. In December 2015, the Watershed Manager and Genesee Finger Lakes Regional Planning Council Senior Planner gave a presentation at the Conesus Town Hall on hydrological processes, effect of steep slopes on soil erosion, and common land use practices that protect water quality and steep slopes. Audience members included Town Board members, Code Enforcement Officers, Planning and Zoning Board members, and concerned shoreline and watershed residents.



Steep slope workshop, December 2015

New programs planned for implementation in 2016 include a regulatory tool-kit, a stream assessment program, riparian and shoreline best practices workshop, and code review for watershed municipalities.

Wilkins Creek Sub-Watershed Stormwater Study

The Town of Livonia received grant funding on behalf of the Town and Village of Livonia through the New York Department of State's Local Waterfront Revitalization Program for a stormwater study for the Wilkins Creek sub-watershed. Wilkins Creek is the most developed sub-watershed leading into Conesus Lake. The study will examine and identify strategies to slow down the movement of stormwater into Wilkins Creek via green infrastructure and other stormwater management practices. Zoning and land use regulations will be analyzed to assess potential impact of development on the stormwater system. The study will offer recommendations on physical projects and updates to municipal regulations to improve water quality.

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 Soil and Water Conservation District and the Natural Resources Conservation Service conduct an upland watershed protection program for agricultural land uses to reduce nonpoint sources of pollution from entering waterbodies throughout the watershed.

The Livingston County Soil & Water Conservation District installed 500 feet of underground outlet and a large 1.5 acre water and sediment control basin on a farm in the watershed. The District also installed an additional 450 feet of underground outlet, 1,750 feet of sub-surface drainage, and a 25 year storm event terrace system on two other watershed farms in 2015. The Natural Resources Conservation Service supported the installation of 649 acres of cover crops on farms within the watershed.



Maxwell Farm, Geneseo



Installation of underground outlet and water and sediment control basin

Trends and Recommendations

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

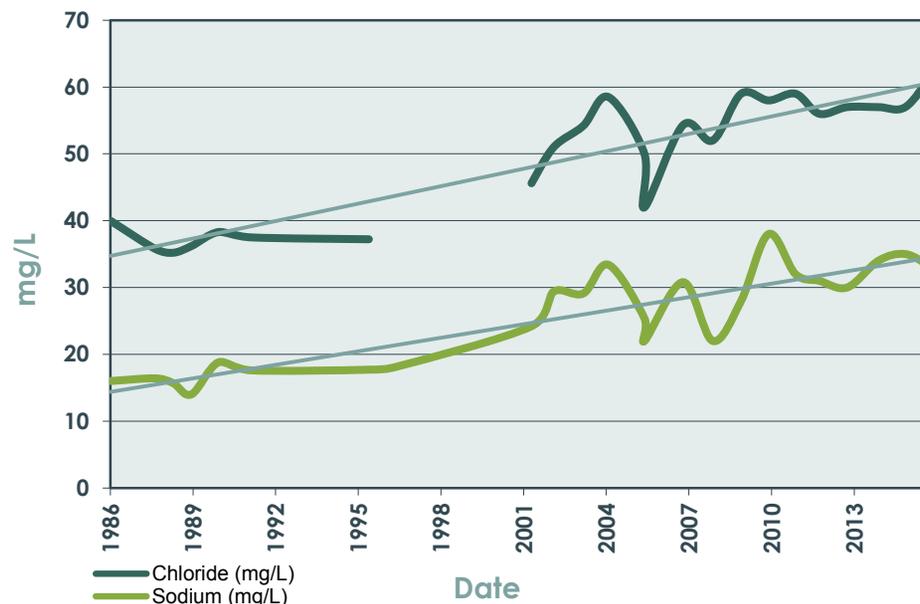
Emerging Trends and Issues

- 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.
- An increase in the frequency and intensity of heavy rain events leading to increases in natural and stormwater related high flow events contributing to property and infrastructure damage.

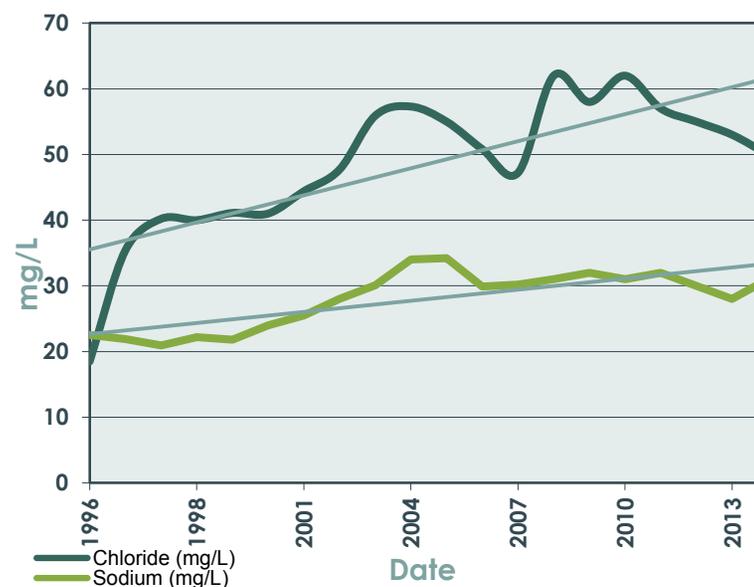
Recommendations

- Ramp up public education initiatives related to stream and stormwater management.
- Reach out to municipalities regarding land use practices effect on stormwater, soil erosion, and water quality.
- Continuation of invasive species prevention projects, including the watercraft steward program at the East Lake Road Boat Launch.
- Develop a system of measures to evaluate Conesus Lake Watershed Council work program implementation for use in subsequent end of year analyses and reports.
- Continue water quality parameter monitoring program.
- Conduct further investigation into potential causes and solutions to help mitigate increases in sodium levels.

Village of Avon



Village of Geneseo



Increasing sodium and chloride trends at the Villages of Avon and Geneseo water treatment plants (DOH).

#	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	<p>The Watercraft Steward Program applied for funding for additional steward hours through the Finger Lakes Partnership for Regional Invasive Species Management (PRISM) sub-contract awards</p> <p>The Town of Livonia applied for a Consolidated Funding Application grant for a Wilkins Creek subwatershed stormwater planning study.</p> <p>A Great Lakes Restoration Initiative grant application was submitted by Genesee/Finger Lakes Regional Planning Council (GFLRPC) for additional streambank stabilization along North McMillan Creek.</p>
A-1	Review and amend zoning regulations to improve consistency in near-lake areas.	High	<p>Planning Staff participated in the Geneseo and Conesus zoning updates, Springwater comprehensive plan update, and the Town of Geneseo's Agriculture and Farmland Protection Plan. The Town of Sparta received funding for Agriculture and Farmland Protection Plan. The Planning Department will be providing staff assistance.</p>
A-3	Develop public education campaigns on BMPs for lake and watershed residents.	High	<p>A stream/stormwater working group was created. Membership included representatives from the Planning Department, Department of Health, County Highway Department, Emergency Management Office, Water and Sewer Authority, and Soil and Water Conservation District. Additional agencies and organizations were selected to participate in future meetings. The group discussed programming and public education priorities for 2015 and 2016 work plans. Agency and municipal personnel attended a NYSDEC sponsored FEMA floodplain workshop in Spring.</p> <p>The Watershed Manager presented on watershed hydrology, rain gardens, and green infrastructure at the Conesus Lake Association's (CLA) Annual Meeting in September.</p> <p>An educational kiosk featuring green infrastructure and native plants was installed at the Long Point Park demonstration rain garden.</p> <p>The Watershed Inspector presented on watershed issues to youth audiences at both the Way-Co Health Fair and Cuylerville Rod and Gun Club.</p>

#	Recommendation	Priority	Actions
A-3	Develop public education campaigns on BMPs for lake and watershed residents.	High	<p>The Conesus Lake Watershed Council co-sponsored a December workshop for municipal, planning, and code enforcement officials and watershed residents on stormwater, erosion and sediment control laws and zoning practices. The Watershed Manager presented on how slope and stormwater affect erosion potential and water quality. The Genesee Finger Lakes Regional Planning Council presented on common land use regulations and green infrastructure practices that help to ameliorate effects on water quality.</p> <p>The Watershed Manager presented website updates to the Conesus Lake Watershed Council at its August 14th meeting. Updates included pages on invasive species, blue green algae, best management practices, and a comprehensive list of reports and publications. The new pages are coordinated with the Department of Health's Watershed Inspection Program webpage.</p> <p>The Watershed Manager presented on the Conesus Lake Watershed Invasive Species program for two environmental science classes at Avon High School. Students participated in a class project creating and presenting invasive species educational brochures.</p>
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	<p>The Natural Resources Conservation District supported the installation of 649 acres of cover crop throughout the watershed.</p> <p>The Soil and Water Conservation District (SWCD) installed 500 feet of underground outlet, 750 of subsurface drainage, and a 75,000 + square foot water and sediment storage to address surface runoff from a 39 acre watershed on a watershed farm.</p> <p>A 25 year storm event terrace system with a 450 foot underground outlet and 1,000 feet of sub-surface drainage was installed by the SWCD on a second farm.</p>

#	Recommendation	Priority	Actions
B-2	Implement practices that will reduce nonpoint source pollution from farms.	High	The SWCD is working on the design and layout of a two terrace system to address gully and sheet erosion, which is currently under construction on a third farm.
C-1	Develop and implement program to restore and stabilize streambanks in the watershed.	High	Easements and permits were secured for the project on North Gully Creek. Construction began in November. North McMillan, Wilkins, and lower Long Point reaches are in the planning and permitting stages.
C-3	Develop public education campaigns on the impact of human activities on the health of the Lake.	Med.	The CLA distributed fifty three welcome to the lake kits new lakeshore residents this year.
E-2	Develop a public education campaign promoting invasive species awareness	High	The CLA staffed an invasive species prevention booth at the Arts and Craft Show in July.
G-1	Investigate and implement effective methods to control the spread of non-native (exotic) organisms	High	The Watercraft Steward Program hired three stewards for the 2015 boating season and coordinated with the Workforce Development Summer Youth Employment Program to hire an additional steward to join the Cornell Cooperative Extension stewards at the boat launch during July. Stewards started at the Boat Launch on May 22nd. Launch data was compiled and analyzed by the CLA. The CLA's Hydrilla Hunt took place on September 20th. No hydrilla or other invasive species were detected. The CLA trained 9 volunteer monitors to identify invasive species during two sessions held on August 2nd and August 6th. A new canoe and kayak monitoring group is being established. Twelve volunteers have been recruited for 2016.

#	Recommendation	Priority	Actions
G-1	Investigate and implement effective methods to control the spread of non-native (exotic) organisms	High	<p>The Watershed Manager and CLA partners participated in the Finger Lakes PRISM Full Partnership meeting and Aquatic Working Group meetings throughout the year. The Watershed Manager participated on the PRISM Steering Committee.</p> <p>The CLA constructed two additional wooden invasive species disposal stations for watercraft access points around the lake with signs provided by the Planning Department. A disposal station has been installed at Long Point Park, and another is also slated for Vitale Park.</p>
G-2	Develop and implement a program for cleaning accumulated aquatic plants and algae along the shoreline of Conesus Lake.	High	<p>Livingston County Department of Health developed new advisory signage for blue green algae blooms.</p> <p>The Department of Health updated the blue green algae public education brochure and Blue Green Algae Early Detection and Rapid Response Plan. The Conesus Lake Watershed Council (CLWC) approved the updated Plan at its August Meeting.</p>
G-4	Initiate effort to determine if in-creased stocking of walleye fingerlings, or other species, would be an effective biological control in Conesus Lake.	High	<p>New York State Department of Environmental Conservation stocked 32,500 1.5 inch walleye fingerlings on 6/24.</p> <p>The CLA stocked 1,200 8-10 inch fingerlings in late fall.</p>
H-1	Conduct an annual monitoring pro-gram of Conesus Lake and its watershed. An annual monitoring meeting should be held to coordinate the monitoring program.	High	<p>The Annual Monitoring Meeting was held on January 17, 2015.</p> <p>The Livingston County Department of Health continued the public bathing beach monitoring and blue green algae programs during 2015.</p> <p>SUNY Brockport and SUNY Geneseo researchers monitored tributaries and internal phosphorus loading patterns.</p>
H-2	Prepare and distribute an annual Conesus Lake and Watershed Report Card.	High	<p>2014 Report Card was completed and presented to the CLWC at its May meeting.</p>

Conesus Lake Watershed Council

6 Court Street - Room 305

Geneseo, NY 14454

(585) 243-7550

livingstoncounty.us/conesus.htm

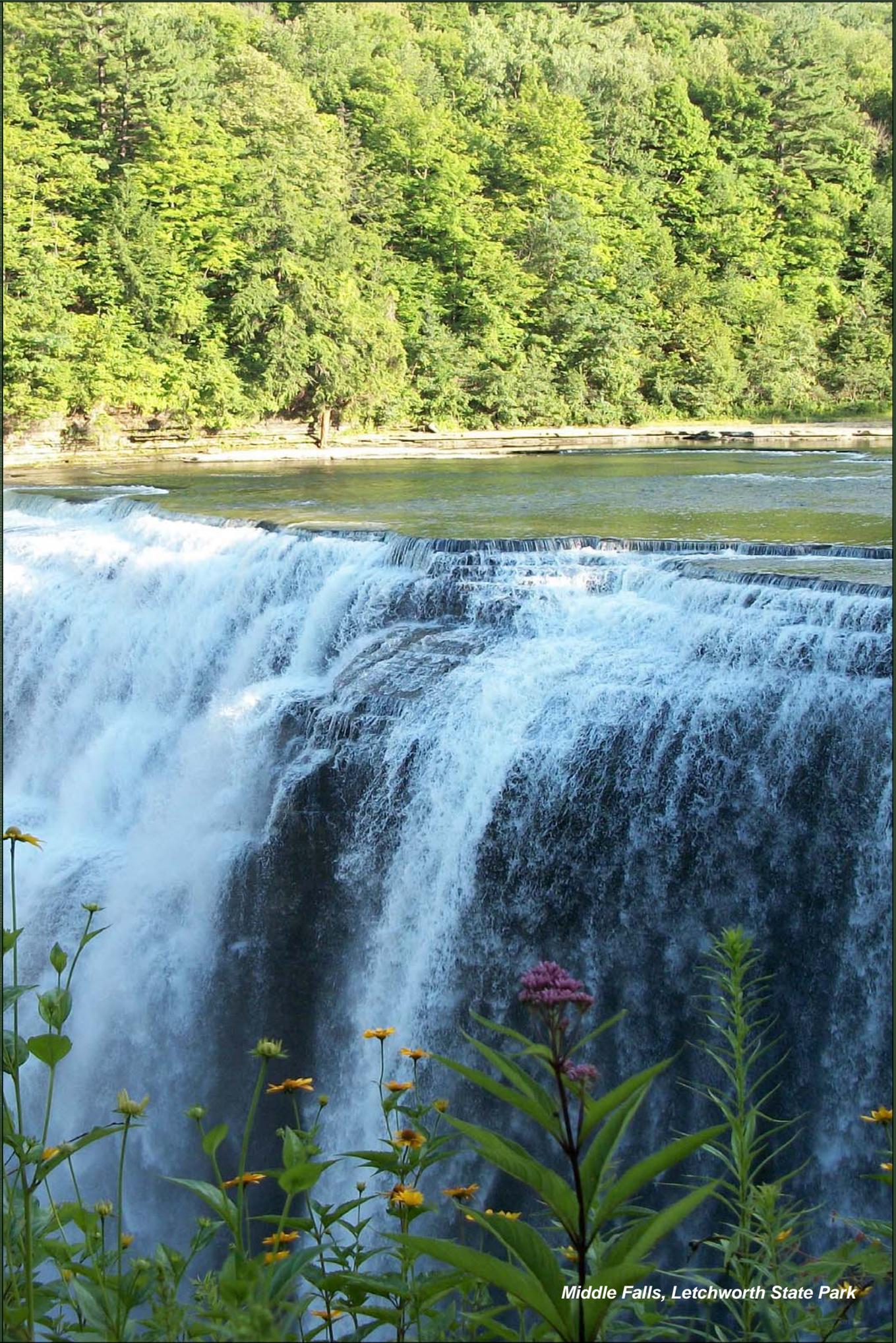


Document prepared by the Livingston
County Planning Department

Cover photos provided by John Hudak, Conesus Lake Association, Livingston County Soil and Water Conservation District, and Livingston County Planning Department.

Livingston County Environmental Management Council

Annual Report 2015



Middle Falls, Letchworth State Park

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**LIVINGSTON COUNTY
ENVIRONMENTAL MANAGEMENT COUNCIL**

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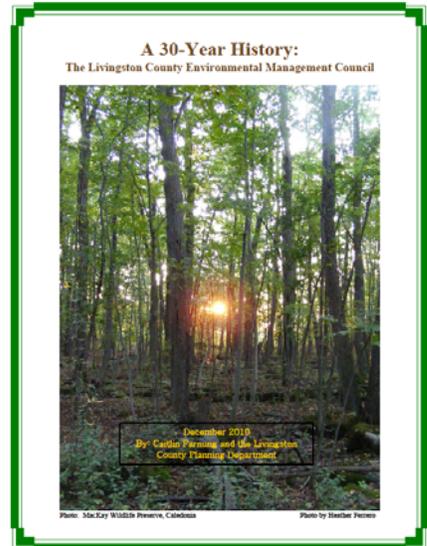
History & Mission

The Livingston County Environmental Management Council (EMC) is a formal citizens advisory group that was formed by the Livingston County Board of Supervisors in 1979. The EMC has an authorized membership of 20 members, and there were 13 members in 2015. The membership is comprised of representatives of agriculture, general citizenry, and industry-commerce. The EMC was established as a step to foster coordinated action on environmental issues among local governments and public and private organizations within the County. Its charge is to work cooperatively with the Board of Supervisors, local municipalities, and citizens of the County on the protection, preservation, development, and use of the County's natural resources.

Environmental Management Councils (EMCs) were established in New York State under Article 47 of the Environmental Conservation Law passed in 1970. These boards were optional and consisted of volunteers meant to advise the county governments and connect the community and the county. The Livingston County EMC is one of 25 EMCs active in New York State today.

The history of the Livingston County EMC has been compiled into a report, "30-Year History: The Livingston County Environmental Management Council," which synthesizes 30 years of history and documents the important and diverse services that the Council has provided.

This Livingston County EMC Annual Report documents the activities of the EMC from January 1, 2015, through December 31, 2015, and provides a proposed program for 2016.



2015 Activities

Work Plan

The Livingston County EMC Work Plan reflects the mission of the EMC, identifies the activities that support the mission, and tracks the progress of those activities. The Work Plan recognizes and emphasizes the importance of education as a primary goal of the EMC and the importance of the EMC being a resource for municipal officials, environmental and governmental agencies, and the community.

Education



Tour: Portage High Bridge and Upper Falls, Letchworth State Park

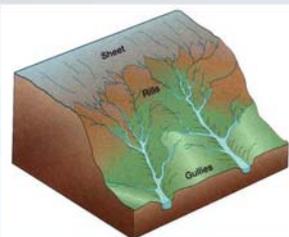
With a strong emphasis on sustainability, energy efficiency and land use education, the EMC developed a well-rounded Work Plan for 2015. The Plan focused on providing educational programs, tours and materials on environmental topics of concern or interest. The programs engaged municipal officials, community members, and interested agencies or parties from 2 counties and 16 municipalities, and reached over 150 participants in total.

Education (continued)



**SUNY Geneseo Letchworth Dining
Hall Tour, Geneseo**

Sediment Delivery: Sheet Flow vs. Rill Flow



**Steep Slope Development Workshop,
Conesus**



**Energy Efficient Municipal Projects,
Geneseo**

The EMC sponsored or co-sponsored the following educational workshops and tours in 2015:

- ◆ Letchworth Dining Hall Tour, SUNY Geneseo, NY
- ◆ Annual Letchworth State Park Tour, Portage, NY
- ◆ Energy Efficient Municipal Projects, SUNY Geneseo, NY
- ◆ Steep Slope Development Workshop, Conesus, NY
- ◆ SEQR Basics Workshop, North Dansville, NY

Membership & Meetings

The EMC has representation in three broad categories of agriculture, industry-commerce and general citizenry. The Council proudly recognizes the commitment of several long-term members, David H. Swanson (33 years), David W. Parish (33 years), Robert Donnan (29 years), Susan Walker (21 years) and William McCleary (17 years). In 2015, the EMC focused on membership recruitment, adding on three new members in the general citizen category.

Please call the Planning Department at (585)243-7550 or (585)335-1734
if you are interested in joining the EMC.

Membership List 2015

	<u>Original Appointment</u>		<u>Original Appointment</u>
<u>AGRICULTURE</u>		<u>GENERAL CITIZENS</u>	
Robert Donnan (York)	3/86	Ray Case (Livonia), <i>Chair</i>	3/10
David H. Swanson (Mount Morris)	2/82	Barry Ganzhorn, Sr. (Caledonia)	9/08
Susan Walker (Springwater)	5/94	William McCleary (Livonia)	8/98
Ben Gajewski (GVC/Geneseo)	5/13	David W. Parish (Geneseo)	11/82
1 Vacancy		Alex Pierce (Nunda), <i>Secretary</i>	1/13
		Wendy Stevenson (Springwater)	4/08
<u>INDUSTRY-COMMERCE</u>		Dan DeZarn (SUNY Geneseo)	5/15
5 Vacancies		Darlene Necaster (SUNY Geneseo)	5/15
		Carolyn Tinney	7/15
		1 Vacancy	

The EMC meets on the fourth Wednesday of every other month.
All meetings are open to the public.

Earth Day Award

In observance of Earth Day, the EMC began the Earth Day Award Program that provides recognition to an individual(s), organization, group, or business for outstanding achievements in preserving or improving Livingston County's environment or educating others about Livingston County's environment.

The Livingston County Environmental Management Council selected Harold "Tim" Shay as the 2015 EMC Earth Day Award recipient in memoriam. The EMC recognized Mr. Shay's life-long commitment to his community and his engagement of others, youth and adult, in improving their environment. His efforts fostered a connection that people have with their natural environment, and this pride is still evident in the community today.

The Environmental Management Council acknowledged Mr. Shay's broad and consistent efforts to protect and conserve Livingston County's natural resources and to improve the quality of life for the County's residents.

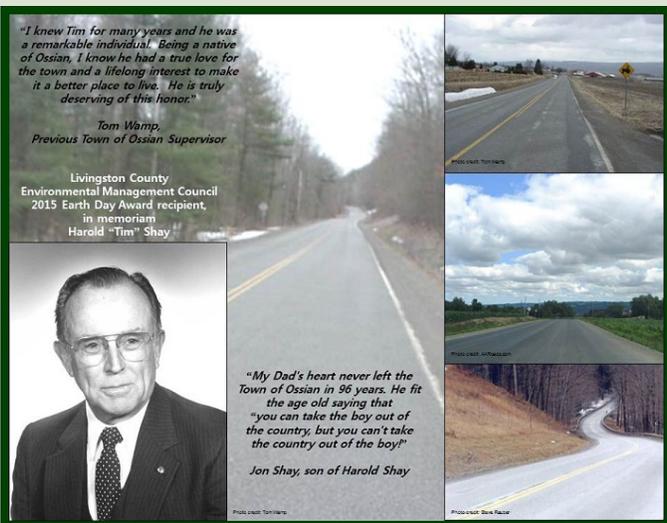


EMC Chairman Ray Case congratulating Jon Shay,
on behalf of his father, Harold "Tim" Shay,
the Livingston County EMC 2015 Earth Day
Award recipient

Livingston County EMC 2015 Earth Day Award
accepted by Jon Shay on behalf of his father,
Harold "Tim" Shay
from Livingston County Board of Supervisors
Chairman Eric Gott



Livingston County EMC
2015 Earth Day Award recipient in memoriam
Harold "Tim" Shay



Website Content

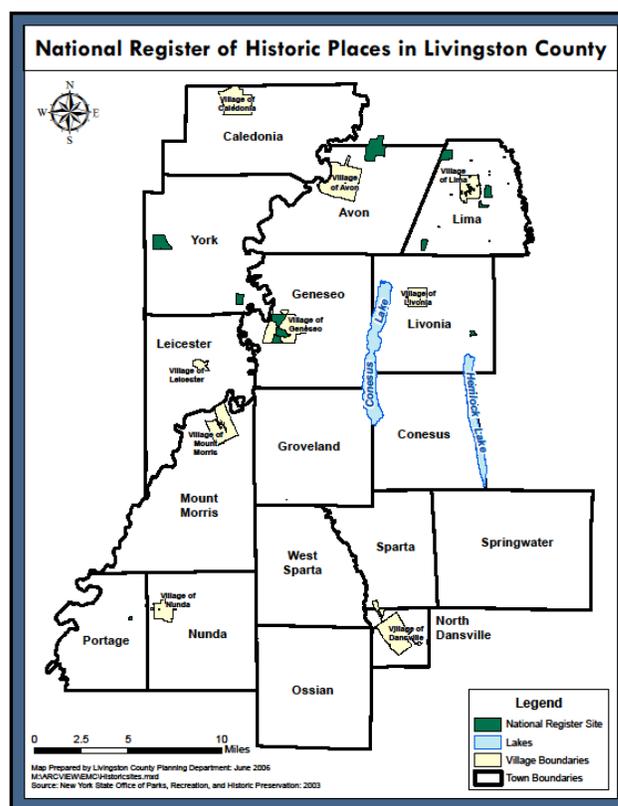
The EMC works to enhance awareness of the EMC and promote access to local and regional environmental resources through website resources. The Livingston County EMC website (www.livingstoncounty.us/emc.htm) was first created in March 2001. The site provides a description of the EMC, a list of current members, and information on meeting dates and times. The site also has a link to EMC Annual Reports, the EMC 30-Year History Report, the Livingston County Natural Resources Inventory, the Earth Day Award Nomination form and EMC sponsored events.

Environmental Inventory

As per the New York State Environmental Conservation Law, Section 47-0107(5-a), one of the primary goals of the EMC is to develop and maintain an inventory of natural resources within Livingston County. A major undertaking of the EMC has been the development of the Livingston County Natural Resources Inventory (NRI). Over the course of many years, the EMC worked diligently to compile information on Livingston County's natural and historic resources, engage local governments in the identification process, and produce NRI Volume I in 2005 and Volume II in 2007. The full NRI was published and widely distributed to Towns, Villages, local libraries, and other interested parties in 2007.

The NRI is available on the Livingston County website, and it is utilized by the Livingston County Planning Board regularly. NRI comments are included in the Livingston County Planning Board staff reports, which are generated for County Planning Board zoning referrals. NRI comments provide information on the presence and location of natural and historic resources and advisory comments regarding impacts. The EMC continues to receive updates from the Office of Parks, Recreation and Historic Preservation whenever a site is accepted to the State and National Registers of Historic Places. Another new resource is the Genesee-Finger Lakes Regional Inventory of Culturally Significant Areas. The EMC anticipates conducting periodic updates of the NRI.

In 2015, the EMC identified the need for an update of the Natural Resources Inventory and is in the process of identifying new resources and maps that need revision.



A map included in the Livingston County Natural Resources Inventory (NRI)

Regulatory Environment

The EMC assembles and reports information on the status of regulatory permitting and redevelopment programs that may have an impact on local communities. In 2015, the EMC reported regularly on NYS DEC Environmental Permits, State and Federal Proposed Regulations, and the NYS DEC Brownfield Clean-up Program.

County/Regional Projects & Communication

Conesus Lake Watershed Management Plan (CLWMP)

In 1998, the EMC recognized the need for a Conesus Lake Watershed Management Plan and expressed a willingness to participate in the planning process. Increasing development pressure, degradation of the water quality in the Lake, and more stringent Federal and State standards for public drinking water supplies made it crucial that a comprehensive watershed management approach to conserving and protecting Conesus Lake be developed. Two EMC members served on the CLWMP Policy Committee, which was the official decision-making body during the creation of the Plan. EMC participation on the CLWMP Policy Committee continued through 2003.

After the Plan was completed in 2003, the Conesus Lake Watershed Council (CLWC) was created in December 2003. The CLWC is responsible for Plan implementation and support of the Conesus Lake Watershed Inspection Program. The EMC receives updates on the implementation efforts and activities and water quality issues at each bi-monthly meeting.

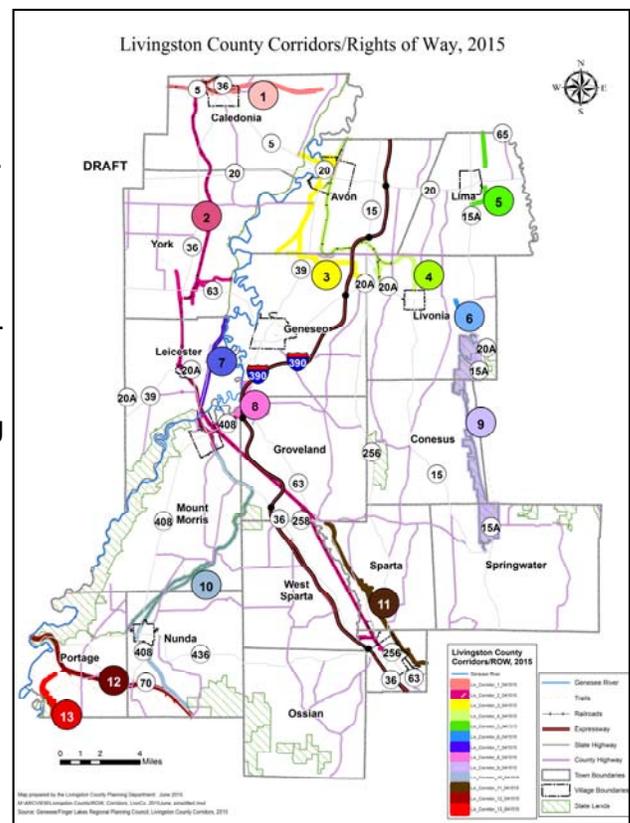
Communication with the Board of Supervisors

A goal for 2015 was to continue a dialogue with the Livingston County Board of Supervisors through the Public Services Committee to maintain communications, foster good relations, and gain a better understanding of how the EMC can best serve the County's environmental needs. The Planning Department continued to communicate bi-monthly activities of the EMC to the Board of Supervisors and the Public Services Committee. In April 2015, EMC Chairman Ray Case presented to the Livingston County Public Services Committee, providing an overview of the EMC.

County and Regional Projects

One of the primary goals of the EMC is to act as a resource for Livingston County. The EMC works to provide municipalities with educational and environmental resources. The EMC has identified that countywide communication is a way to meet this goal by connecting municipalities with resources that assist them in increasing energy efficiency, reducing energy costs, and accessing low or no-cost funding sources.

Throughout 2015, the EMC actively participated in several regional projects providing representation on or contributions to the following committees: Livingston County Transportation Advisory Committee Environmental Work Group, Genesee Transportation Council Regional Trails Initiative Project, and the Finger Lakes Regional Rights-of-Way Project.



Participation in Other Activities

The EMC participates on committees and in meetings and events as needed. EMC members report back to the committee as a whole on their findings and/or their participation. In 2015, EMC maintained ongoing communication with neighboring Monroe and Steuben County EMCs.

2016 Proposed Program & Activities

Work Plan

The 2016 EMC Work Plan identifies the mission of the EMC and the proposed 2016 activities that support the mission, and will be used to track the progress of those activities. The completed Work Plan will be incorporated into the EMC Annual Report. The EMC has identified the following priorities for 2016: training and education, Earth Day Award, membership recruitment and the promotion of sustainable/green energy strategies and development.

Education

The EMC has developed a plan for 2016 with an emphasis on sustainability and land use planning education. The anticipated programs will engage municipal officials, community members, and interested agencies or parties. Highlights from the Work Plan follow; see the attached 2016 Work Plan for full details:

- ◆ Co-sponsor a "LET'S Plan" Walkable Communities Tour
- ◆ Attend the Annual Letchworth State Park tour
- ◆ Investigate tour of Letchworth State Park Nature Center
- ◆ Participate in the Livingston County Transportation Connectivity Plan Implementation
- ◆ Participate in the EPA Brownfield Assessment Coalition Proposed Project

The EMC's promotional efforts will include communications to the Board of Supervisors and municipal officials, press releases and submissions to newspapers, community calendars and web sites.

Membership

The EMC will continue ongoing membership recruitment from all three broad categories of agriculture, industry-commerce, and general citizenry. For 2016, the EMC has developed a plan for recruiting new members, especially from the industry-commerce sector and local colleges. Parties interested in joining the EMC can call the Planning Department at (585) 243-7550 or (585) 335-1734 for more details.

Earth Day Award

In support of the global observance of Earth Day and the concern for protecting and preserving the environment, the EMC will continue its award program where an individual(s), organization, group, or business is recognized for their positive contribution to the natural environment in Livingston County.

The EMC will publicize its award program through press releases, contact with Earth Science teachers and other school officials in the County, Town Supervisors and Village Mayors, Chamber of Commerce, SUNY Geneseo, NYSDEC and in local advertisements. Nominations may be presented by both the public and private sector. Nominees are not required to reside in the County, but the actions and achievements on which the nomination is based must have occurred partially or wholly in Livingston County. Members of the Livingston County EMC are not be eligible to receive the award.

Nominations may be for outstanding technical contributions to the environment or for contributions of time and energy toward a positive environmental goal or objective. Such activities may have occurred during the previous year or may be recognition of efforts over many years' time. The accomplishment must be based on work above and beyond what would be considered as regular duties.

The annual Earth Day Award is selected at the regularly scheduled March meeting of the EMC.

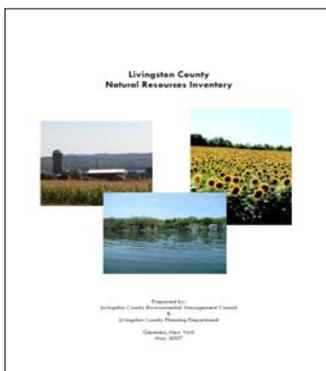


Website Content

The EMC will continue to utilize and enhance web resources to promote the awareness of the EMC and encourage access to local and regional environmental resources. The Livingston County EMC website will be updated in 2016 to include membership information, links to the 2015 Annual Report, and the 2016 Earth Day Award Nomination form. The EMC will participate in updates to the Livingston County website anticipated for 2016.

In addition, the EMC will review existing municipal and environmental websites to explore additional educational opportunities, links, and resources that may be used to enhance Livingston County web resources.

Environmental Inventory



The EMC will continue to act as a resource for Livingston County environmental information and data, with a goal in 2016 to continue the Livingston County Natural Resources Inventory (NRI) update. This will include the assessment of the existing NRI and

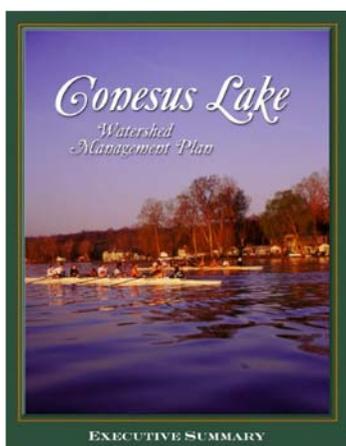
the identification of new resources and those that need updating.

Regulatory Environment

The EMC will continue reporting information on the status of regulatory permitting and redevelopment programs with potential local impact, including the NYS Department of Environmental Conservation Environmental Permits and Brownfield Clean Up Programs. Pending funding, the Genesee/Finger Lakes Regional Planning Council will be conducting a brownfield inventory, assessment, and implementation plan within the Genesee/Finger Lakes Region as part of the EPA Brownfield Assessment Coalition Project. The EMC will participate by reviewing Livingston County's compiled inventory of brownfields and providing comments on the assessment phase and implementation plan.

County Projects & Communication

Conesus Lake Watershed Management



Planning Department staff will continue to update the EMC on the progress of Conesus Lake Watershed Management Plan recommendation implementation.

Communication with the Board of Supervisors

The EMC will continue its normal activities and assist the Board of Supervisors. The Planning Department will communicate the activities of the EMC to the Board of Supervisors Public Services Committee. The EMC will present the 2015 Annual Report to the Public Services Committee in 2016. The EMC will also invite members of the Public Services Committee, or a representative from the Committee, to attend EMC meetings in 2016.

Participation in Other Activities

EMC members will continue to participate on committees and in meetings and events as needed, and provide reports to the EMC as a whole on their participation or findings.

**Livingston County Environmental Management Council
2016 Work Plan**

Mission Statement:

The charge of the Livingston County Environmental Management Council is to work cooperatively with the Board of Supervisors, local municipalities, and citizens of the County on the protection, preservation, development, and use of the County's natural resources.

2016 Activities:

#	Description	Work Tasks	Lead/ responsibility	Anticipated Completion (Qtrs)	Accomplishments to Date
	Education				
1	Provide educational programs or materials on environmental topics of concern or interest. Target audiences include municipalities, environmental or governmental agencies and community at large. Includes development and distribution of promotional materials, press releases, educational pieces, flyers and website information. Distribution may include Livingston County committees, councils and boards, municipalities, libraries, schools, regional Planning Departments and EMCs, community calendars and media.	Provide educational materials and resources related to the Emerald Ash Borer to municipalities and community members. Include notifications related to infestations and redistribution of Livingston County Ash Tree Inventories and supporting documents.	Mary Underhill, PD	Q1	
2		USACE Mt Morris Dam Discovery Series, disseminate information, casual promotion.	David W. Parish, others	Q1	
3		Investigate DEC Adopt-a-Watershed program and determine feasibility for local community involvement.	Alex Pierce, Mary Underhill	Q1	
4		Provide access to community-based educational materials, resources, training on the protection and stewardship of natural resources and energy alternatives.	Mary Underhill, all members	Q1 - Q4	
5		Co-sponsor LET'S Plan Walkable Communities, May - June.	Mary Underhill, PD	Q2	
6		Annual Letchworth State Park tour, attend and promote.	Mary Underhill, PD	Q3 - July	
7		Investigate tour of Letchworth State Park Nature Center, Fall 2016.	Dan Dezarn, Mary Underhill PD	Q3 - Q4	

**Livingston County Environmental Management Council
2016 Work Plan**

#	Description	Work Tasks	Lead/ responsibility	Anticipated Completion (Qtrs)	Accomplishments to Date
	Membership				
8	Ongoing membership recruitment with representation in three broad categories of agriculture, industry and general citizenry.	Work on activities that recruit new members, especially business members.	All members	Q1 - Q4	
9	Ongoing membership recruitment of students with representation from SUNY or other college/university.	Work on activities that recruit new members, including students.	All members	Q1 - Q4	
10	Promotion of current membership.	Discussion on creation of membership roster and/or biographies for EMC	Ray Case, Mary Underhill PD	Q3	
	Earth Day Award				
11	Provide recognition to others for outstanding achievements in preserving or improving Livingston County's environment or educating others about Livingston County's environment.	Assemble Earth Day Award nominating subcommittee, set date and meeting location, review nomination materials and select nominee. Present award, announce recipient.	All members	Q1 - Q2	
	Website Content				
12	Continue to enhance awareness of the EMC, and promote access to local and regional environmental resources.	Update information on EMC webpage as needed.	Mary Underhill, PD	Q1 - Q4	
	Environmental Inventory				
13	Prepare and disseminate Livingston County environmental information and data. To be used as a local planning and project review tool, for county and regional project assessment, and to increase community awareness of natural resources.	Identify new resources & those needing updates, such as Genesee Finger Lakes Regional Planning Council Culturally Significant Areas and Livingston County Steep Slopes.	Heather Ferrero, Mary Underhill, Intern, PD	Q1 - Q2	
	Regulatory Environment				
14	Assemble and report information on the status of regulatory permitting and redevelopment programs that may have an impact on local communities.	Report on NYSDEC Environmental Permits.	Barry Ganzhorn	Q1 - Q4	
15		Report on State and Federal Proposed Regulations.	Mary Underhill, PD	Q1 - Q4	
16		Report on U.S. Environmental Protection Agency (EPA) Brownfield Clean-up program & Office of Parks, Recreation & Historic Preservation (OPRHP) National Register listing activities.	Heather Ferrero, Mary Underhill, PD	Q1 - Q4	

**Livingston County Environmental Management Council
2016 Work Plan**

#	Description	Work Tasks	Lead/ responsibility	Anticipated Completion (Qtrs)	Accomplishments to Date
	County/Regional Projects & Communication				
17		Prepare EMC Annual Report, 2015, review and approve. Disseminate to Supervisors; Mayors; Clerks; Monroe & Steuben Co EMC; Pioneer Library via Pat Galbraith at Bell Memorial Library; Letchworth State Park, Douglas Bassett; 2015 Earth Day Award Recipient.	All members	Q1 - Jan	
18		Participate in Livingston County Transportation Advisory Committee Environmental Work Group.	Wendy Stevenson	Q1 - Q4	
19		Livingston County Facilities improvements - provide input on County energy projects as needed.	Angela Ellis, PD	Q1 - Q4	
20		Update on the Conesus Lake Watershed Management Plan (CLWMP) and water quality issues.	Heather Ferrero, PD	Q1 - Q4	
21		EMC will continue dialogue with Board of Supervisors through the Public Services Committee to maintain communications, foster good relations and gain a better understanding of how the EMC can best serve the County's environmental needs. The Planning Department will communicate bi-monthly activities of the EMC to the Board of Supervisors & Public Services Committee. EMC Chair will present to the Public Services Committee in April.	Angela Ellis, PD, EMC Chair	Q1 - Q4	
	Participation in Other Activities				
22	Participation on committees, and in meetings and events, as needed. EMC members will report back to the EMC on their findings/participation.	Continue participation in public hearings and other meetings regarding regional projects as needed	All members	Q1 - Q4	
23		Participation in Monroe County EMC meetings and programs, as interested. Report back to the EMC on their findings/ participation. Livingston County EMC members will receive Monroe County EMC agenda/meeting notices/materials.	All members	Q1 - Q4	

**Livingston County
Agricultural and Farmland Protection Board
2016 Work Plan**

Recommendation 1: Develop an Agribusiness Retention, Expansion, and Attraction Plan						
#	Rec. #	Priority	Description	Work Tasks	Lead Agency	Completion Timeline (2015/On-Going)
1	1-B	H	Develop a targeted marketing plan focusing on strategic advantages of Livingston County.	Continue efforts to update the website and provide links to important resources for agri-business and public.	Planning	On-going
Recommendation 2: Enhance Business Development Programs and More Fully Incorporate the Interests of the Agriculture Industry.						
2	2-A	MH	Develop a feedback mechanism to incorporate agribusiness needs in county development programming.	The Planning Department will work with Economic Development to incorporate agribusiness needs in county development programming: Regional Economic Development Council and LCDC. Planning will work with ED on promoting the Growing The Ag Industry Now (GAIN) program.	Economic Development Department	On-going
3	2-B	MH	Support and expand Chamber of Commerce and other program activities that enhance business growth and understanding of agricultural industry needs.	Support the Chamber of Commerce Farmer & Neighbor Dinner Event.	AFPB	1st Qtr
				Support the Livingston County Farm Fest Event.	AFPB	3rd Qtr
4	2-C	ML	Enhance the public relations network and partnerships with other agencies that have an active public outreach program.	The Planning Department, Economic Development Office, County Chamber of Commerce, Cornell Cooperative Extension and Genesee Valley Conservancy will work together on activities that promote agriculture.	BOS, AFPB, Planning, Econ Development, Chamber of Commerce, CCE, GVC	On-going
Recommendation 5: Develop a Regulatory and Policy Action Program						
5	5-A	H	Work to ensure fair treatment of both farm owners and agricultural labor at the federal and state levels.	Continue participation on the NYSAC Statnding Committee on Agriculture	BOS, AFPB, Planning	on-going
Recommendation 9: Support Farm Friendly County Based Land Use Policies and Programs						
7	9-A	M	Improve coordination in the development of regionally significant infrastructure improvements and target future infrastructure siting away from agricultural areas.	<i>Livingston County Transportation Connectivity Plan</i> . The Plan was completed in December 2013. Represent agriculture on the community development and environmental work groups. Particular focus will be on implementation activities that help strengthen the transportation infrastructure for farming operations.	Genesee Transportation Council, Planning Department	On-going
8	9-C	H		Conduct annual 303-b Petition Process	Planning Department, AFPB, BOS	4th Qtr
Recommendation 10: Actively Support Town Based Agricultural Planning						
9	10-A	HH	Encourage and promote more comprehensive inclusion of agriculture in town level comprehensive planning which may include supporting town requests for state funding support.	The County Planning Department provides grant writing and in-kind match (non-cash) technical and mapping assistance to the towns in the development of their comprehensive plans.	Planning Department	On-going
10	10-B	HH	Provide County support through in-kind and cash match to town level applications for New York Agriculture and Markets technical assistance grants for Agricultural and Farmland Protection Plans, Quality Communities Grants, and other grant programs available for town level agricultural planning.	The County Planning Department will continue to provide grant writing and in-kind match (non-cash) technical and mapping assistance to the towns in the development of their municipal agricultural protection plans, funded through the New York State Department of Agriculture and Markets Municipal Agricultural and Farmland Protection Planning Grant. Grantwriting assistance through Planning or the County's Grantsman is also available.	Planning Department	On-going
Recommendation 12: Support a Purchase of Development Rights Program in the County						

**Livingston County
Agricultural and Farmland Protection Board
2016 Work Plan**

#	Rec. #	Priority	Description	Work Tasks	Lead Agency	Completion Timeline (2015/On-Going)
11	12-A	HH	Support the establishment of a purchase of development rights program in towns or by the County to maintain the balance of protected farmland within core production areas.	Since 2007, the County and the AFPB have partnered with the Genesee Valley Conservancy on a county purchase of development rights program. Continue to work with GVC to complete the Sunny Knoll and Triple H Farm projects and begin the Moore Farm and Pleasant Hill Farm projects.	County Board of Supervisors, AFPB, Genesee Valley Conservancy	On-going
12	12-B	HH		County partners will review the need to conduct the 2016 Livingston County Purchase of Development Rights Program Pre-application Process	BOS, AFPB, GVC	2nd Qtr
14	13-C	M	Expand and improve events such as the annual Farm-Neighbor Dinner as well as adding new events appropriate to meet Livingston County's needs by evaluation models used in other areas of the State such as Saratoga County's Sundae on the Farm; Erie County's Family, Food, and Farm Tour; Genesee County's Local Decision Maker's Tour and others.	The Genesee Valley Conservancy started an annual Local Decision-Makers Tour in 2009 to reinforce awareness and the importance of viable agricultural operations in the County. In 2010, the County provided support to the Genesee Valley Conservancy Local Decision-Maker's Tour by certifying the event for municipal planning and zoning training credits. The Planning Department will provide GVC with support to continue this successful effort.	Genesee Valley Conservancy	On-going

**Conesus Lake Watershed Management Plan
2016 Work Program**

Priority	Rec. #	Description	Work Tasks	Lead Agency	Completion Timeline (Qtrs)	Status/Comments
High	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.	Confer with Liz Moran and SUNY professors and LCDOH on 2016 Conesus Lake monitoring plan.	Livingston County Planning Department	Q1	
High	H-2	Prepare and distribute an annual Conesus Lake and Watershed Report Card.	Create 2015 Annual Report Card	Livingston County Planning Department/EcoLogic	Q1 & Q4	
High	H-2	Prepare and distribute an annual Conesus Lake and Watershed Report Card.	Provide annual report and monitoring data to NYSDEC	Livingston County Planning Department	Q1	
High	G-2	Develop and implement a program for cleaning accumulated aquatic plants and algae along the shoreline of Conesus Lake	Continue the shoreline cleanup program using existing Workforce Development programs.	CLA/Livingston County Planning Department/LCDOH	Q1-Q3	
High	G-1	Investigate and implement effective methods to control the spread of non-native (exotic) organisms	Continue and coordinate a Watercraft Steward Program for the NYSOPRHP Boat Launch on East Lake Road.	Livingston County Planning Department, CLA, Cornell Cooperative Extension	Q1-Q3	
High	G-1	Investigate and implement effective methods to control the spread of non-native (exotic) organisms	Provide technical assistance to the Conesus Lake Association's 2016 invasive species rake-toss and dive surveys.	Livingston County Planning Department/CLA	Q3	
High	G-4	Initiate effort to determine if increased stocking of walleye fingerlings, or other species, would be an effective biological control in Conesus Lake.	Continue stocking walleye fingerlings.	NYSDEC/CLA	Q3-Q4	
High	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	Conduct annual monitoring program.	Livingston County Planning Department/LCDOH	Q3-Q4	
High	all	Secure funding outside of the EPF funding source to implement CLWMP activities	Investigate and apply for funds from grants opportunities as they arise (key areas: streambank restoration, leaf pick-up equipment & program, agricultural waste removal).	Livingston County Planning Department	Q1-Q4	
High	A-3	Develop public education campaigns on BMPs for lake and watershed residents.	Develop and implement a public education campaign to address streamside and shoreline stormwater management	Livingston County Planning Department, LCDOH, CLA, Technical Committee, PE&O Committee	Q1-Q4	

Conesus Lake Watershed Management Plan 2016 Work Program

Priority	Rec. #	Description	Work Tasks	Lead Agency	Completion Timeline (Qtrs)	Status/Comments
High	A-1	Review and amend zoning regulations to improve consistency in near-lake areas.	Continue to provide technical assistance to the Towns of Geneseo and Springwater regarding zoning and watershed issues.	Livingston County Planning Department	Q1-Q4	
High	A-3	Develop public education campaigns on BMP's for lake and watershed residents	Maintain the Planning Department website as an up to date source of public education and outreach information.	Livingston County Planning Department/PE&O Committee	Q1-Q4	
High	A-3	Develop public education campaigns on BMP's for lake and watershed residents.	Conduct educational workshops and presentations on lake ecology and water quality for youth audiences.	Livingston County Planning Department, LCDOH, CLA, Technical Committee, PE&O Committee	Q1-Q4	
Medium	A-3	Develop public education campaigns on BMP's for lake and watershed residents.	Work in partnership with the CLA and its Water Quality Committee on public education efforts.	PE&O Committee	Q1-Q4	
High	B-1	Secure funding to help mitigate the financial impacts of changes in agricultural practices on the producers.	Continue to use existing funding sources and look for new funding sources for ag BMPs.	Ag agencies & CLWC Ag Committee	Q1-Q4	
High	B-2	Implement practices that will reduce nonpoint source pollution from farms.	Continued implementation of ag BMPs.	Watershed Farmers/Liv. Co. SWCD/USDA NRCS	Q1-Q4	
High	C-1	Develop and implement program to restore and stabilize streambanks in the watershed	Assist Towns of Livonia and Conesus with EPF streambank remediation grant (Phase 1).	Livingston County Planning Department	Q1-Q4	
High	C-1	Develop and implement program to restore and stabilize streambanks in the watershed	Assist Towns of Livonia and Geneseo with EPF streambank remediation grant (Phase 2).	Livingston County Planning Department	Q1-Q4	
High	C-1	Develop and implement program to restore and stabilize streambanks in the watershed	If funded, implementation of GLRI grant for streambank remediation on North McMillan Creek in the Town of Conesus	GFLRPC	Q1-Q4	
High	C-1	Develop and implement program to restore and stabilize streambanks in the watershed	If funded, conduct Wilkins Creek subwatershed stormwater study (NYSDOS grant)	Planning Department	Q1-Q4	
Medium	C-3	Develop public education campaigns on the impact of human activities on the health of the Lake.	Support the Conesus Lake Association's <u>Conesus Campaign</u> to educate lakeside and watershed residents on lake-friendly best management practices.	PE&O Committee/CLA	Q1-Q4	

**Conesus Lake Watershed Management Plan
2016 Work Program**

Priority	Rec. #	Description	Work Tasks	Lead Agency	Completion Timeline (Qtrs)	Status/Comments
Medium	C-3	Develop public education campaigns on the impact of human activities on the health of the Lake.	Conduct an educational program that reaches out to Contractors on landscaping and erosion control best management practices.	LCDOH, CLA	Q1-Q4	
High	E-2	Develop a public education campaign promoting invasive species awareness	Hold workshops and presentations to reach general and target audiences with invasive species awareness message. Attend festivals with a Conesus Lake Watershed Council/Invasive Species Prevention informational booth.	Livingston County Planning Department, CLWC Technical Committee, CLA	Q1-Q4	
High	G-1	Investigate and implement effective methods to control the spread of non-native (exotic) organisms	Provide technical assistance to the Conesus Lake Association's 2016 Aquatic Invasive Species Volunteer Monitoring Program and Marine Patrol training.	Livingston County Planning Department/CLA	Q1-Q4	
High	G-1	Investigate and implement effective methods to control the spread of non-native (exotic) organisms	Continued participation in 2016 Finger Lakes PRISM activities.	Livingston County Planning Department	Q1-Q4	
High	G-1	Investigate and implement effective methods to control the spread of non-native (exotic) organisms	Implement public education and programming at the NYSOPRHP East Lake Road Boat Launch and NYSDEC cartop launches that address boats and trailers as vectors of invasive species spread.	Livingston County Planning Department, CLWC Technical Committee, CLWC PE&O Committee, CLA	Q1-Q4	
High	G-1	Investigate and implement effective methods to control the spread of non-native (exotic) organisms	Establish a boat wash program at the NYOPRHP East Lake Road Boat Launch	CLA/Livingston County Planning Department/Technical Committee	Q1-Q4	

**Livingston County Environmental Management Council
2016 Work Plan**

Mission Statement:

The charge of the Livingston County Environmental Management Council is to work cooperatively with the Board of Supervisors, local municipalities, and citizens of the County on the protection, preservation, development, and use of the County's natural resources.

2016 Activities:

#	Description	Work Tasks	Lead/ responsibility	Anticipated Completion (Qtrs)	Accomplishments to Date
	Education				
1	Provide educational programs or materials on environmental topics of concern or interest. Target audiences include municipalities, environmental or governmental agencies and community at large. Includes development and distribution of promotional materials, press releases, educational pieces, flyers and website information. Distribution may include Livingston County committees, councils and boards, municipalities, libraries, schools, regional Planning Departments and EMCs, community calendars and media.	Provide educational materials and resources related to the Emerald Ash Borer to municipalities and community members. Include notifications related to infestations and redistribution of Livingston County Ash Tree Inventories and supporting documents.	Mary Underhill, PD	Q1	
2		USACE Mt Morris Dam Discovery Series, disseminate information, casual promotion.	David W. Parish, others	Q1	
3		Investigate DEC Adopt-a-Watershed program and determine feasibility for local community involvement.	Alex Pierce, Mary Underhill	Q1	
4		Provide access to community-based educational materials, resources, training on the protection and stewardship of natural resources and energy alternatives.	Mary Underhill, all members	Q1 - Q4	
5		Co-sponsor LET'S Plan Walkable Communities, May - June.	Mary Underhill, PD	Q2	
6		Annual Letchworth State Park tour, attend and promote.	Mary Underhill, PD	Q3 - July	
7		Investigate tour of Letchworth State Park Nature Center, Fall 2016.	Dan Dezarn, Mary Underhill PD	Q3 - Q4	

**Livingston County Environmental Management Council
2016 Work Plan**

#	Description	Work Tasks	Lead/ responsibility	Anticipated Completion (Qtrs)	Accomplishments to Date
	Membership				
8	Ongoing membership recruitment with representation in three broad categories of agriculture, industry and general citizenry.	Work on activities that recruit new members, especially business members.	All members	Q1 - Q4	
9	Ongoing membership recruitment of students with representation from SUNY or other college/university.	Work on activities that recruit new members, including students.	All members	Q1 - Q4	
10	Promotion of current membership.	Discussion on creation of membership roster and/or biographies for EMC	Ray Case, Mary Underhill PD	Q3	
	Earth Day Award				
11	Provide recognition to others for outstanding achievements in preserving or improving Livingston County's environment or educating others about Livingston County's environment.	Assemble Earth Day Award nominating subcommittee, set date and meeting location, review nomination materials and select nominee. Present award, announce recipient.	All members	Q1 - Q2	
	Website Content				
12	Continue to enhance awareness of the EMC, and promote access to local and regional environmental resources.	Update information on EMC webpage as needed.	Mary Underhill, PD	Q1 - Q4	
	Environmental Inventory				
13	Prepare and disseminate Livingston County environmental information and data. To be used as a local planning and project review tool, for county and regional project assessment, and to increase community awareness of natural resources.	Identify new resources & those needing updates, such as Genesee Finger Lakes Regional Planning Council Culturally Significant Areas and Livingston County Steep Slopes.	Heather Ferrero, Mary Underhill, Intern, PD	Q1 - Q2	
	Regulatory Environment				
14	Assemble and report information on the status of regulatory permitting and redevelopment programs that may have an impact on local communities.	Report on NYSDEC Environmental Permits.	Barry Ganzhorn	Q1 - Q4	
15		Report on State and Federal Proposed Regulations.	Mary Underhill, PD	Q1 - Q4	
16		Report on U.S. Environmental Protection Agency (EPA) Brownfield Clean-up program & Office of Parks, Recreation & Historic Preservation (OPRHP) National Register listing activities.	Heather Ferrero, Mary Underhill, PD	Q1 - Q4	

**Livingston County Environmental Management Council
2016 Work Plan**

#	Description	Work Tasks	Lead/ responsibility	Anticipated Completion (Qtrs)	Accomplishments to Date
	County/Regional Projects & Communication				
17		Prepare EMC Annual Report, 2015, review and approve. Disseminate to Supervisors; Mayors; Clerks; Monroe & Steuben Co EMC; Pioneer Library via Pat Galbraith at Bell Memorial Library; Letchworth State Park, Douglas Bassett; 2015 Earth Day Award Recipient.	All members	Q1 - Jan	
18		Participate in Livingston County Transportation Advisory Committee Environmental Work Group.	Wendy Stevenson	Q1 - Q4	
19		Livingston County Facilities improvements - provide input on County energy projects as needed.	Angela Ellis, PD	Q1 - Q4	
20		Update on the Conesus Lake Watershed Management Plan (CLWMP) and water quality issues.	Heather Ferrero, PD	Q1 - Q4	
21		EMC will continue dialogue with Board of Supervisors through the Public Services Committee to maintain communications, foster good relations and gain a better understanding of how the EMC can best serve the County's environmental needs. The Planning Department will communicate bi-monthly activities of the EMC to the Board of Supervisors & Public Services Committee. EMC Chair will present to the Public Services Committee in April.	Angela Ellis, PD, EMC Chair	Q1 - Q4	
	Participation in Other Activities				
22	Participation on committees, and in meetings and events, as needed. EMC members will report back to the EMC on their findings/participation.	Continue participation in public hearings and other meetings regarding regional projects as needed	All members	Q1 - Q4	
23		Participation in Monroe County EMC meetings and programs, as interested. Report back to the EMC on their findings/ participation. Livingston County EMC members will receive Monroe County EMC agenda/meeting notices/materials.	All members	Q1 - Q4	



Livingston County Transportation Connectivity Plan (TCP)

Transportation Advisory Committee (TAC)

2016 TAC Work Plan

2016 Community Development Work Group: Work Program

Project Description	TCP Goal(s) Addressed ¹	Lead Agency	Status / Comments
<p>1. Dansville Transportation and Industrial and Commercial Access Study (UPWP Task # 7701)</p>	<p>Goal 1 Goal 2 Goal 3</p>	<p>Planning Department</p> <p>Involved Agencies:</p> <p>GTC NYSDOT Dansville (V.) N. Dansville (T.) Dansville Airport G&W Railroad</p>	<p>Objective: Develop transportation access alternatives / improvements in order to promote economic development in and around the targeted study area.</p> <p>Update: The project Steering Committee met on July 29th to discuss and approve the final report and to determine the next steps for implementation, which includes the Community Development Work Group becoming the committee that will guide the implementation of the Plan. The Final Report was presented to the GTC Planning Committee on August 11th, and was accepted by the GTC Board on September 1st.</p> <p>With the study portion now concluded, Planning staff and the Community Development Work Group will focus on the initiation of study implementation recommendations in 2016.</p>
<p>2. I-390 Exit 4 Development Initiative</p>	<p>Goal 1 Goal 3</p>	<p>Planning Department</p> <p>Involved Agency:</p> <p>Economic Development</p>	<p>Objective: To promote and facilitate appropriate development in the vicinity of I-390 Exit 4 in Dansville. The project will include the development of a Marketing Strategy that will be developed by the County Economic Dev. Dept.</p> <p>Update: Discussions have been held regarding the development of a marketing program that is intended to draw new business and industry to the area. A meeting regarding the Exit 4 development strategy and potential sanitary sewer infrastructure funding sources was held on May 27th. Currently, a number of potential funding sources are being explored. Additionally, Economic</p>

	Project Description	TCP Goal(s) Addressed ¹	Lead Agency	Status / Comments
				<p>Development is looking to identify potential interested developers, which would improve the chances of securing infrastructure funding.</p> <p>In 2016, the Planning Dept. will be reviewing local zoning changes needed to facilitate development and assist Economic Development in property marketing activities.</p>
3.	Rochester & Southern Railroad Rehabilitation Project	Goal 3 Goal 6	G & W Railroad Involved Agencies: NYSDOT Economic Development	<p>Objective: The development of needed rail line improvements. This project is, in part, a component of the Dansville Transportation Access Study.</p> <p>Update: The railroad has applied for and received funding for improvements. The required materials have been procured and the rehabilitation work is underway. The initial work is IDA funded and being done between Mt. Morris and Dansville, including a new rail extension being put in at American Rock Salt.</p> <p>This work is nearing completion with final inspection expected in 2016. Rochester & Southern Railroad is the applicant for the rehabilitation funding for the section north to Caledonia. This portion of the rail line improvements is expected to go out to bid in 2016, with possible completion by year's end.</p>
4.	Livonia Gateway Park Road Project	Goal 1 Goal 3	Economic Development Involved Agencies: Planning Department Town of Livonia	<p>Objective: The development of Gateway Park Road and associated transportation system improvements to promote development in Town's northwest quadrant.</p> <p>Update: \$50,000 in funding has been secured to conduct a feasibility analysis of current infrastructure and potential improvements that would promote economic development in the area. An RFP for consulting services for the feasibility study resulted in the selection of Clark Patterson Lee in May. Two (2) meetings of the project Steering Committee have been held and a third scheduled for December 17th, with draft alternatives to be presented. Outreach efforts to secure participation from local property owners is continuing.</p> <p>The "Feasibility Study for the Livingston County Livonia Gateway Road Project" is targeted for completion in early 2016, with implementation activities including marketing and seeking funding for capital improvements to be initiated shortly thereafter.</p>

Project Description	TCP Goal(s) Addressed ¹	Lead Agency	Status / Comments
<p>5. Millennium Drive Roadway Extension Project</p>	<p>Goal 1 Goal 2 Goal 5</p>	<p>County Administrator</p> <p>Board of Supervisors (BOS)</p> <p>Involved Agencies:</p> <p>Planning Dept. Health Dept. Highway Dept. Geneseo (V.)</p>	<p>The project involves the construction of approximately 700 linear feet of new roadway with ancillary sidewalk, lighting, utility and streetscape facilities that will extend Millennium Drive from its current terminus to the western terminus of Veteran Drive. The project is intended to help mitigate traffic concerns at the intersection of Volunteer Road and Lakeville Road (US 20A) by providing an alternative access to the Wal-Mart commercial area. The proposed roadway extension will also provide access to parcels suitable for potential future development beyond the current terminus of Millennium Drive.</p> <p>Update: As Lead Agency for SEQR, the County issued a Negative Declaration on July 8th. The project received Final Approval for both the roadway alignment site plan and necessary land subdivisions from the Village of Geneseo Planning Board on October 28th. Preliminary site work is underway with construction anticipated to be completed in mid-2016.</p> <p>In 2016, Planning and Highway staff will continue to monitor traffic conditions in the area. Planning staff will also review any development proposals that would impact traffic volumes, safety, and/or Level of Service (LOS) on area roads.</p>
<p>6. Regional Transportation and Food Systems Analysis</p> <p>(UPWP Task # 5242)</p>	<p>Goal 3 Goal 5</p>	<p>G/FLRPC</p> <p>Involved Agencies:</p> <p>Cooperative Ext. Economic Dev. Planning Dept.</p>	<p>Objective: To identify and inventory the stakeholders involved with food production, processing, storage/warehousing, distribution, and post consumption and summarize the transportation and land use opportunities and issues.</p> <p>Update: At the November 12th GTC Planning Committee meeting, it was noted that the approval of a preferred consultant was expected in November. It was also noted that an executed contract with the selected consultant was anticipated by the end of November.</p> <p>In 2016, the Community Development Work Group and Planning Department staff will continue to participate in the project process and ultimately be involved in addressing Final Report findings and key policy issues that are identified.</p>
<p>7. Portage Railroad Bridge Across Letchworth State Park Gorge</p>	<p>Goal 3</p>	<p>NYSDOT</p> <p>Involved Agencies:</p> <p>None</p>	<p>Objective: To address the existing deficiencies at the Portageville Bridge on the Southern Tier rail freight route across the Genesee River by providing a modern rail crossing of the Genesee River at its current location that is capable of carrying current industry standard freight rail loads. This project impacts interstate commerce and will benefit Livingston County with less truck traffic on local highways.</p>

Project Description	TCP Goal(s) Addressed ¹	Lead Agency	Status / Comments
			<p>Update: With the ground breaking in October, 2015, the contractor has begun work, which will continue through the Fall of 2017 with trains expected to be using the new bridge at that point and the removal of the existing bridge to follow. Trails around and under the bridge will be closed for the duration of construction.</p> <p>Blasting rock for the arch foundation is expected to start after the first of the year (2016). Planning staff and the Community Development Work Group will continue to monitor progress in 2016 through monthly status reports from the NYSDOT Freight & Passenger Rail Bureau.</p>

2016 Public Transportation Work Group: Work Program

Project Description	TCP Goal(s) Addressed ¹	Lead Agency	Status / Comments
<p>1. Public Transportation User Toolkit (UPWP Task # 8170)</p>	<p>Goal 4</p>	<p>OFA</p> <p>Involved Agencies:</p> <p>GTC Planning Dept. DSS RGRTA The ARC Chamber of Commerce RTS Livingston Catholic Charities Noyes Health Workforce Dev. SUNY Geneseo</p>	<p>Objective: To provide a clearinghouse / mechanism in order to facilitate the accessibility of information regarding the availability of transportation services from various transportation service providers in the County.</p> <p>The Work Group has decided that the Toolkit will be a single point-of-entry information system that would allow the general public to obtain information on how to secure transportation service from one location to another. The Toolkit will use a main website approach, with an independent website as host, with links to individual transportation providers and appropriate Human Service agencies. It will provide information on all transportation providers serving Livingston and surrounding Counties. A web-design professional will be hired to create a user-friendly website. Information will also be made available through hard copy sources such as pamphlets, flyers, and various directories.</p> <p>Update: The transportation service provider data collection is complete. Funding for the project has been secured from GTC as a result of a letter of interest submitted by Livingston County Planning in response to a GTC RFP for a Regional Mobility Management Business Plan for the Genesee-Finger Lakes</p>

Project Description	TCP Goal(s) Addressed ¹	Lead Agency	Status / Comments
			<p>Region. GTC has provided a scope of work and prepared an RFP for consultant services (web design professional) with input from the Work Group & Planning.</p> <p>The focus in 2016 will be to work with the selected consultant on the development of the website and other agencies on preparing hard copy materials.</p>
<p>2. RGRTA Regional Operational Service Audit (UPWP Task # 8210)</p>	<p>Goal 1 Goal 4 Goal 5</p>	<p>RGRTA</p>	<p>Objective: To conduct a comprehensive audit of the County's public transportation system to identify improvements, maximize efficiency, minimize costs, and provide a positive customer experience.</p> <p>Update: RTS has selected a consultant to evaluate current route structure design and frequency. The project is anticipated to be initiated either this month (December 2015) or January 2016.</p> <p>It is expected that the project will be completed no later than the Fall of 2016. The Public Transportation Work Group will continue to monitor and provide assistance to RGRTA as needed until project completion, and provide support as requested on findings and recommendations pertaining to Livingston County routes.</p>
<p>3. Rochester Area Vanpool Feasibility Study (UPWP Task # 8781)</p>	<p>Goal 1 Goal 4</p>	<p>RGRTA</p> <p>Involved Agencies:</p> <p>Planning Department</p>	<p>Objective: To determine the feasibility of a vanpool program to link commuters to major destinations in the Rochester Metropolitan Planning Area, which includes portions of Livingston County.</p> <p>Update: The project Steering Committee held its final meeting in September. With stakeholder and public outreach efforts completed, the consultant prepared the Final Report in October. The report recommends that RTS move forward with 5 or 6 Vanpool Demonstration Programs, which will determine the feasibility of the overall program. One such recommended demonstration program would link commuters between Rochester/Monroe County and SUNY Geneseo. It is anticipated that it may take 18 months to determine the viability of an individual vanpool.</p> <p>In 2016, Planning staff will assist RTS and SUNY Geneseo in facilitating the demonstration program as needed.</p>

	Project Description	TCP Goal(s) Addressed ¹	Lead Agency	Status / Comments
4.	Revised User-Friendly RTS Livingston Bus Schedule	Goal 1 Goal 4 Goal 5	RTS Involved Agencies: RTS Livingston	<p>Objective: To prepare an RTS bus schedule for Livingston County that is more user-friendly and easier for riders to interpret and understand.</p> <p>Update: The schedule has been completed and is posted on the RTS website at http://www.myrts.com/Livingston/Schedules.</p> <p>In 2016, updates to the schedule will be posted as needed and the Public Transportation Work Group will continue to provide RTS with public feedback regarding scheduling issues.</p>
5.	Genesee-Finger Lakes Region Coordinated Public Transit-Human Services Transportation Plan (UPWP Task # 8150)	Goal 1 Goal 2 Goal 4 Goal 5	GTC Involved Agencies: NYSDOT RGRTA Planning Department	<p>Objective: To continue the implementation of the recommendations of the current Genesee-Finger Lakes Region Coordinated Public Transit-Human Services Transportation Plan (Coordinated Plan) and complete the update of the plan to enhance mobility and access, minimize duplication of services, and provide cost-effective transportation for seniors, persons with disabilities, and low-income individuals.</p> <p>Update: Strategies and recommendations from the 2011 Coordinated Plan have been reviewed and are being updated. Two (2) Public Workshops and two (2) Project Steering Committee meetings have been conducted in order to receive input on current issues and unmet transportation needs. This information has been used in revising, refining and prioritizing the Plan's proposed recommendations and strategies. The Final Draft Report is currently being prepared by GTC staff. The project is anticipated to be completed by 2015 year's end.</p> <p>In 2016, the Planning Department and other involved agencies will assist GTC in advancing the recommendations of the updated Coordinated Plan.</p>

2016 Environmental Work Group: Work Program

Project Description	TCP Goal(s) Addressed ¹	Lead Agency	Status / Comments
<p>1. Livingston County Emergency Traffic Management Plan: Evacuation Routes & Special Event Plans</p>	<p>Goal 5</p>	<p>Emergency Management</p> <p>Involved Agency:</p> <p>Planning Department</p>	<p>Objective: To develop a plan that addresses traffic management including evacuation routes for emergency situations and traffic control for larger scale special events.</p> <p>Update: GIS mapping has been initiated for Livingston County's Emergency Traffic Management Plan, including the locations of shelters, bridges and roads in the 100 year floodplain. Planning staff is currently working on preliminary mapping of evacuation routes based on location within the County (four quadrants); and the identification of emergency service locations (i.e., shelter, medical, food, fuel, etc.).</p> <p>In 2016, mapping will continue and data from the Critical Transportation Infrastructure Vulnerability Assessment will be incorporated into the analysis. The resulting map and data would be used for the purposes of drills by various County agencies, including: Emergency Services; the Sheriff's Office; and the Department of Health.</p>
<p>2. Regional Walkability Improvement Program - Avon Walkability Audit - Geneseo Walkability Audit</p> <p>(UPWP Task # 8710)</p>	<p>Goal 1 Goal 2</p>	<p>GTC</p> <p>Involved Agencies:</p> <p>Planning Department</p>	<p>Objective: Develop an action plan to improve pedestrian safety, accessibility, convenience, and comfort in village downtowns, on main streets, and to and from activity centers. Livingston County will promote in other interested communities.</p> <p>Avon Update: The audit was initiated in December, 2014. The project is nearly complete with the final draft report having been presented to the Village of Avon project Steering Committee for review.</p> <p>Geneseo Update: The windshield survey and walkability audit were conducted in April, 2015. The final draft report has been presented to the Village of Geneseo project Steering Committee for review. GTC has received the final drafts from the consultant for all ten (10) participating municipalities.</p> <p>In 2016, the Planning Department will: (1) Develop a "Let's Plan" presentation on the two (2) completed audits and provide additional educational information on community walkability to interested municipalities; and (2) Determine the viability of a UPWP application to fund additional walkability audits and training in Livingston County communities.</p>

Project Description	TCP Goal(s) Addressed ¹	Lead Agency	Status / Comments
<p>3. Genesee-Finger Lakes Regional Trails Initiative Update (RTI) (UPWP Task # 8701)</p>	<p>Goal 1 Goal 4 Goal 6</p>	<p>GTC Involved Agency: Planning Department</p>	<p>Objective: Update the Regional Trails Initiative to reflect changes in trail development, funding sources, and design guidelines. Inventory existing physical, environmental, and demographic conditions. Assess needs of current and potential trail users.</p> <p>Update: The inventory of existing conditions has been finalized and mapped and draft alternatives have been developed and reviewed by the project Steering Committee. The public input process is complete. Information was gathered from Livingston County Planning, Towns and Villages, and trail associated agencies and groups. GTC has received all requested information. The project is nearing completion.</p> <p>In 2016, the Environmental Work Group and Planning staff will work with GTC and other agencies on the implementation of the findings and recommendations contained in the Final Report.</p>
<p>4. G/FLRPC Regional Rights-of-Way (ROW) Inventory (UPWP Task # 4501)</p>	<p>Goal 6</p>	<p>G/FLRPC Involved Agency: Planning Department</p>	<p>Objective: To identify and analyze key rail and utility corridors that are no longer used for their original intent that have the potential for future transportation related uses. Develop corridor preservation strategies.</p> <p>Update: G/FLRPC staff has completed the parcel inventory and mapping. The final report includes the rating system for analysis of right-of-way corridors; analysis of identified right-of-way corridors; and recommendations on acquisition, costs, and preservation strategies. The project was recommended for approval by the GTC Planning Committee and was accepted by the GTC Board on September 1st.</p> <p>In 2016, the County intends to overlay the ROW Inventory over the RTI mapping to identify new trail development opportunities.</p>
<p>5. Genesee-Finger Lakes Regional Critical Transportation Infrastructure Vulnerability Assessment (UPWP Task # 5750)</p>	<p>Goal 5</p>	<p>GTC Involved Agencies: Planning Dept. Emergency Management County Highway</p>	<p>Objective: To determine the vulnerability of transportation infrastructure assets and associated operations to natural and human-caused hazards. Propose solutions for preventing and/or mitigating the impacts of hazard events on assets.</p> <p>Update: County Planning, Highway, Emergency Management and Sheriff's Office staff have reviewed and commented on the Livingston County sections of the draft technical memoranda for the project. A scoring methodology has been devised to prepare draft vulnerability assessments for each county. The second Steering Committee meeting was held on September 25th. This meeting focused</p>

	Project Description	TCP Goal(s) Addressed ¹	Lead Agency	Status / Comments
				<p>on the asset scoring results, including a review of the scoring methodology, presentation of results, discussions on how well the results reflect agency concerns, adjustments to the scores, and potential mitigation measures.</p> <p>In 2016, the project is expected to be completed and approved, and the Environmental Work Group and Planning staff will utilize the Final Report findings to work with involved County agencies on identifying ways to prevent and/or mitigate hazard impacts on transportation assets.</p>
6.	<p>Greigsville Transportation Safety & Access Improvement Plan (formerly York Walk to School Student Safety Program)</p>	<p>Goal 1 Goal 2</p>	<p>Town of York</p> <p>Involved Agencies:</p> <p>Planning Dept. County Highway NYSDOT</p>	<p>Objective: To develop a student pedestrian safety program and community enhancement program, and associated infrastructure improvements in the vicinity of York Central School and the intersection of SR 36 and SR 63.</p> <p>Update: A project scoping meeting of involved agencies and stakeholders was held on August 26th to discuss hamlet design, transportation access, and student pedestrian safety issues associated with potential commercial development on the NE corner of the intersection across SR 63 near the school complex, as well as other traffic safety and community enhancements to improve and promote the hamlet area. In October 2015, the County submitted a 2016-2017 UPWP application to GTC for this Town of York project seeking funding of a planning study to identify safety and access alternatives and associated capital improvements.</p> <p>In 2016, if funded, a consultant will be retained to complete the study. The County Planning Department will serve as project manager.</p>
7.	<p>Genesee-Susquehanna Greenway Project</p>	<p>Goal 6</p>	<p>Genesee River Wilds</p> <p>Involved Agencies:</p> <p>Planning Dept. GVC</p>	<p>Objective: Involves strategy of using greenways as a toehold for expanding forested riparian buffers along the Genesee River. Secure more funding and stakeholder support for creating these buffers by transforming the Genesee River corridor into a system of economically productive nature parks and greenways.</p> <p>Update: Plans for a trail that closes existing gaps at Williamsport and Allegany (south of Livingston County) have been developed. National Recreation Trail designation is being sought for the project in order to increase eligibility for additional funding. Our focus on this project is the Livingston County portion where there are existing trails along the Genesee Valley Greenway, in Letchworth State Park, as well as proposed trails in various areas.</p>

	Project Description	TCP Goal(s) Addressed ¹	Lead Agency	Status / Comments
				In 2016, the Environmental Work Group and Planning staff will continue to monitor the progress of the project and provide input as needed on trail sections in Livingston County.
8.	Livingston County Snowmobile Grant-in-Aid Program	Goal 6	Planning Department Involved Agencies: Local Snowmobile Clubs	<p>Objective: To secure State funding for the improvement of existing snowmobile trails and the development of new trail sections, extensions and connections to other trails and services. Funding requests also include trail maintenance equipment. This is an annual project.</p> <p>Update: A Trail Development and Maintenance Plan was developed in conjunction with local snowmobile clubs and successfully submitted in September for funding from the New York State Office of Parks, Recreation and Historic Preservation (NYSOPRHP) Snowmobile Trails Grant Program.</p> <p>In 2016, a revised Trail Development and Maintenance Plan will be developed in conjunction with local snowmobile clubs and submitted along with trail mapping as part of an application for funding to the NYSOPRHP Snowmobile Trails Grant Program.</p>

¹ Livingston County Transportation Connectivity Plan (TCP) Goals

- Goal 1:** Provide a sustainable transportation network that provides facilities for and encourages use by all modes, with particular emphasis on pedestrians and bicycles.
- Goal 2:** Improve safety for all modes and users of the transportation system through system design, innovative technology, and education.
- Goal 3:** Improve freight transportation infrastructure and access.
- Goal 4:** Provide comprehensive and innovative public transportation services through LATS and other human service and transportation providers.
- Goal 5:** Promote efficient, innovative, and sustainable system management, maintenance, and operations.
- Goal 6:** Preserve, protect, and enhance the County’s quality of life, natural environment, cultural heritage, and community appearance.

