

## HLWTF

### TABLE OF CONTENTS:

<b>FLLT Purchase</b>	<b>1</b>
<b>Chairman's Update 2019</b>	<b>2</b>
<b>TMDL</b>	<b>3</b>
<b>2019 State of the Lake</b>	<b>4,5</b>
<b>Blue-Green Algae</b>	<b>6</b>
<b>Mill Creek</b>	<b>7</b>
<b>Shoreline Stabilization</b>	<b>8</b>
<b>Watercraft Stewards</b>	<b>9, 10</b>
<b>Water Chestnut</b>	<b>11</b>
<b>Healthy Lawn, Healthy Lake</b>	<b>12</b>
<b>Tree &amp; Shrub Sale</b>	<b>13</b>
<b>HLWTF</b>	<b>14</b>
<b>UPCOMING EVENTS IN THE COMMUNITY:</b>	

- **Honeoye Lake Fishery Update**  
February 3,  
4:30-6pm Muller  
Field Station, go to  
hvaweb.org
- **Soil Health Workshop**  
February 12, go to  
ontswcd.com
- **Tree & Shrub Sale**  
Order Form due  
March 6, page 13

# Honeoye Lake Watershed Task Force Newsletter



## Finger Lakes Land Trust Purchases 57 Acres in the Watershed

The Finger Lakes Land Trust (FLLT) has purchased three properties totaling 57 acres in Richmond and Canadice, New York. These parcels are at the south end of Honeoye Lake. Two of the properties are on East Lake Road and the third is on West Lake Road. Eventually, these properties will be sold to the New York State Department of Environmental Conservation as additions to the Honeoye Inlet Wildlife Management Area. These properties will be protected from construction and development. By preserving these steep slopes and rolling hills, it will decrease soil runoff into Honeoye Lake and promote continued years of wildlife conservation and biodiversity. These purchases within the Honeoye Lake Watershed are crucial for connecting current conservation properties, including Harriet Hollister Spencer Recreation Area, Cumming Nature Center, Wesley Hill Nature Preserve, and property owned by The Nature Conservancy. For more information, please see FLLT's press release: <https://www.fllt.org/land-purchases-link-conservation-lands-and-buffer-honeoye-lake/>



Photo Credit: T. Gronwall: Land parcel adjacent to West Lake Road and the Honeoye Inlet

# HLWTF Chairman's 2019 Project Update: Terry Gronwall

*HLWTF projects to improve water quality in Honeoye Lake and its watershed*

The Honeoye Lake Watershed Management Plan and TMDL based projects are designed to implement Best Management Practices (BMPs) on reducing nutrients and sediments flowing into and cycling through Honeoye Lake.

**NYS HABs Action Plan:** NYS released the Honeoye Lake HABs Action Plan in June 2018. DEC has engaged a certified lake manager to complete a feasibility study for an alum treatment and aeration system for Honeoye Lake. [https://www.dec.ny.gov/docs/water\\_pdf/honeoyehabplan.pdf](https://www.dec.ny.gov/docs/water_pdf/honeoyehabplan.pdf)

**Honeoye Lake Total Maximum Daily Load Report:** TMDL public information meeting held in Honeoye on February 4<sup>th</sup>, 2019. TMDL Report approved by NYSDEC and EPA in August 2019. The recommendations in our TMDL Report will form the roadmap for our water quality improvement plans going forward. [https://www.dec.ny.gov/docs/water\\_pdf/tmdlhoneoyeaug2019.pdf](https://www.dec.ny.gov/docs/water_pdf/tmdlhoneoyeaug2019.pdf)

**NYSDEC WQIP Round 12 Honeoye Lake Inlet Restoration Project:** This project included four elements that work together to encourage inlet stream flows during storms to spread out, slow down and drop sediment and nutrient loadings before reaching the lake. Ontario County Soil & Water Conservation District received the grant award for \$300,000 with \$100,000 local match to fund the implementation of this project. Several project enhancements were implemented in 2018. Project partners received the Seneca Park Zoo Environmental Innovation Award in October 2018. The project was completed in 2019. <https://m.youtube.com/watch?feature=youtu.be&v=Fa-xPBNfuw>

**NYSDEC WQIP Round 15 Honeoye Lake Bank Stabilization Project:** Ontario County Soil & Water Conservation District received grant funding from New York State Sea Grant to pay for the engineering and design of the project. Through another DEC WQIP Round 15 grant, they received funding to install the shoreline stabilization project. This project aims to stabilize 150 feet of shoreline in Sandy Bottom Park adjacent to the public swimming beach. Nature-based shoreline protection practices have been implemented as part of this project. Completed October 2019.

**NYSDEC WQIP Round 15 Custom conveyor for shoreline weed pick-up barge project:** Ontario County Planning Department and the Towns of Richmond & Canadice received grant funding to have a custom conveyor built for our shoreline weed pick-up barge to increase capacity and efficiency. The conveyor is currently being fabricated. Expect the new conveyor to be ready for the 2020 summer season.

**NYSDEC WQIP Round 16 Grant awarded for Honeoye Lake Aeration System Engineering Planning Project:** Ontario County Planning Department and the HLWTF were awarded a grant to engage a lake management consultant to do detailed aeration system engineering design work required for a potential future permit application and implementation grant funding. The results of this project will be used to decide whether or not an aeration system is the best option to reduce the release of phosphorus from the lake bottom sediment.

**Blue-Green Algae Monitoring Project:** At the request of NYSDEC, BGA samples were collected in suspected BGA blooms from Honeoye Lake from June to October 2019 for testing. Results are posted on DEC Harmful Algal Blooms web site: <https://nysdec.maps.arcgis.com/apps/webappviewer/index.html?id=ae91142c812a4ab997ba739ed9723e6e>

**Collected lake water quality data June-Sept:** HLWTF collected weekly surface water temperature, dissolved oxygen, and water clarity data. Also, water samples were collected twice a month (Jun-Sep) for lab testing for phosphorus and nitrogen. HVA Citizen Secchi Disk Volunteer Program continued to collect near shore water clarity and temperature data.

**Electronic Macrophyte Mapping Service:** HLWTF provided two (early July and late August) macrophyte maps for the weed harvesting team to help them focus weed harvesting efforts in the areas of greatest macrophyte density.

*These efforts to improve Honeoye Lake and watershed water quality are a true partnership between The Nature Conservancy, Finger Lakes Land Trust, NYSDEC, Ontario County Planning Department, Ontario County SWCD, Finger Lakes Community College, Finger Lakes Institute, Cornell University, Honeoye Valley Association, the Towns of Richmond, Canadice, Bristol, South Bristol and Naples; and all lake residents and users. We appreciate everyone's support. For more information, please contact: Terry Gronwall, HLWTF Chairman (585)367-3000 [watershedtaskforce@gmail.com](mailto:watershedtaskforce@gmail.com)*

# NYSDEC Honeoye Lake Total Maximum Daily Load (TMDL) Report

## Approved by NYSDEC & EPA August 2019

In 2006, Honeoye Lake was listed on New York State's 303(d) impaired waterbody list due to excessive levels of phosphorus. The EPA requires the state to develop a TMDL for lakes on the 303(d) list to determine the maximum amount of phosphorus reaching the lake from the various sources that will keep algae blooms to an acceptable level ( $\leq 4$  ug/L of chlorophyll-a). The CE-QUAL-W2 Lake computer model was used for this analysis. The lake model takes land use, weather, water flow rates, etc., into account. The model was calibrated with actual lake water quality data and weather data for 2007-2014. The lake model indicated that the two major sources of phosphorus reaching the lake were ~93% from the lake's bottom sediments and ~7% from the watershed during rainstorm events.

The NYSDEC set targets to reduce the watershed's phosphorus contribution by 10% and the lake bottom's phosphorus release by 100%. Recommended watershed actions are to create riparian buffers, vegetative swales, stabilize shoreline banks, proper ditch maintenance procedures, use of non-phosphorus yard fertilizers, etc. Recommended actions to reduce the lake bottom's contribution of phosphorus are an Alum Treatment and/or an Aeration System. Alum binds with the phosphorus instead of iron and maintains that bond under anoxic (no dissolved oxygen) conditions. An aeration system keeps the bottom water with enough dissolved oxygen to keep the remaining phosphorus bound to iron naturally.

The NYSDEC has contracted with a lake management consultant to prepare a feasibility study to evaluate the effectiveness, cost, and life expectancy of an Alum Treatment and/or an Aeration System. This feasibility study is expected to be completed soon. Once the NYSDEC has publicly released this study, we will share the details with you for your feedback.

Actual implementation of the TMDL recommendations will be made after the feasibility study has been released, the detailed engineering completed, the necessary NYSDEC permits are obtained, and the required project funding is secured. Additional Honeoye Lake TMDL information can be found at the following websites:

Approved TMDL Report:

[https://www.dec.ny.gov/docs/water\\_pdf/tmdlhoneoyeaug2019.pdf](https://www.dec.ny.gov/docs/water_pdf/tmdlhoneoyeaug2019.pdf)

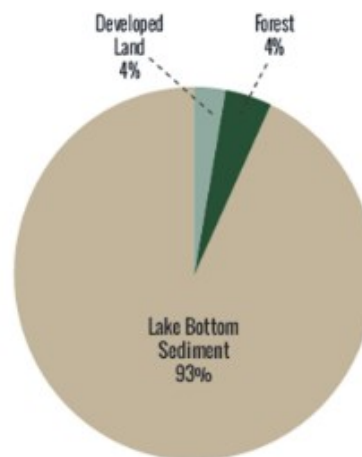
TMDL 2/4/19 Meeting Charts:

[http://www.dec.ny.gov/docs/water\\_pdf/honeoyepres.final.pdf](http://www.dec.ny.gov/docs/water_pdf/honeoyepres.final.pdf)

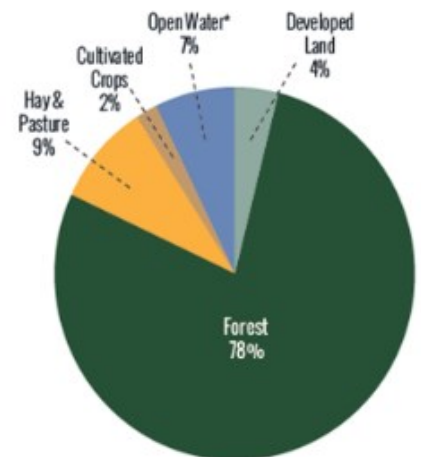
TMDL 2/4/19 Meeting Video:

<https://www.youtube.com/watch?v=Nggal8Q-On8>

Honeoye Lake  
Phosphorus Loading



Honeoye Lake  
Land Use



These charts show the percentages of different land uses within the lake watershed and an estimate of the amount of nutrients entering the lake from nonpoint sources.

\*Open water represents all surface water (lake, rivers, streams) in the watershed.

**Charts from the NYS Honeoye Lake HABs Action Plan**



# 2019 State of the Lake

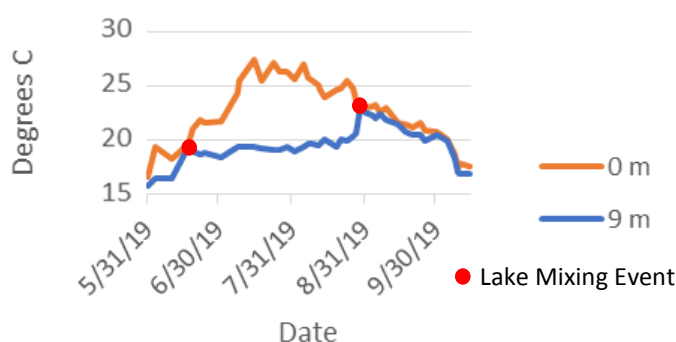
This past summer Honeoye Lake had improved water clarity with fewer *Anabaena* sp. and *Microcystis* sp. (blue-green algae) blooms that it has had in over 10 years. High water clarity occurs when there are fewer particles (sediment and plankton) suspended in the water column and is associated with reduced storm water run-off, hence less sediment, and fewer dissolved nutrients that might support algal blooms. The lake stratified in late June and we didn't have a wind generated lake mixing event until late August. In addition, during July and August, we had no heavy rain storms (2 inches or greater) which may also cause mixing. **This**

**two-month period of lake stratification kept the legacy nutrients released from the anoxic (no oxygen) bottom sediments in the cool bottom water below the thermocline, making the nutrients unavailable to fuel our typical mid-summer blue-green algal blooms in the sunlit upper waters.** You can clearly see these relationships in the water temperature, dissolved oxygen, and phosphorus graphs below:

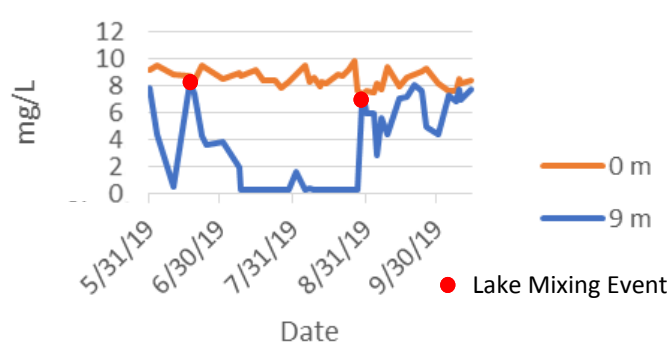


Photo Credit: Dr. Roxanne Razavi, SUNY ESF

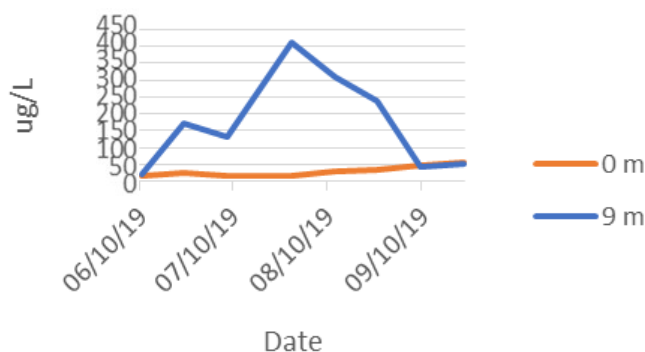
## 2019 Water Temperature



## 2019 Dissolved Oxygen (DO)



## 2019 Total Phosphorus (TP)



The first two graphs above show 2019 water temperature (°C) and dissolved oxygen (mg/L DO) trends. The third graph to the left shows the accumulation of total phosphorus (TP) near the lake bottom in late July reaching a very high level of 410 µg/L (the blue line) and only 16 µg/L (the orange line) near the surface. Anything greater than 20 µg/L at the lake surface is considered eutrophic. The lake experienced some wind generated internal waves in August reflected by the rising blue bottom temperature line and declining bottom blue TP line while the orange surface TP line steadily increased. The internal waves caused some amount of water exchange between the surface and bottom water. On August 27<sup>th</sup> we had a south wind exceeding 20 MPH which led to a complete lake mixing event.

Honeoye Lake is normally polymictic during the summer, meaning it mixes due to strong wind and/or cool storm water every few weeks which will bring up nutrient rich bottom water to the lake surface. This is what provides the majority of the nutrients that fuel our common mid-July through September blue-green algal blooms. You can see the lake's polymictic nature in the 2018 water temperature and dissolved oxygen graphs on the next page; the lake actually mixed at least four times shown by the convergence of the orange surface water temperature line with the blue bottom water temperature line and the convergence of the orange surface DO line with the blue bottom water DO line (when mixing occurs, surface and bottom water are the same temperature and DO is uniform top to bottom). Each mixing event brings nutrient rich bottom water towards the surface fueling our blue-green algae blooms. This is known as internal nutrient loading to distinguish it from nutrients that enter the lake from its watershed, called external loading. Both sources added together describe the lake's nutrient budget, also known as its trophic state.

# 2019 State of the Lake Continued...

This long period of lake stratification in the summer 2019 confirmed the findings in the DEC Honeoye Lake HABs Action Plan and DEC Total Maximum Daily Load Report: legacy phosphorus released from the bottom sediments (especially in 2018) contributes a significant amount of phosphorus to fuel our blue-green algae blooms. The DEC recommended an Alum Treatment and/or Aeration System to reduce this internal source of phosphorus. The Honeoye Lake Watershed Task Force is currently considering these mitigation techniques. The DEC is currently evaluating their two small-lake Alum Pilot projects before issuing new permitting guidelines for Alum Treatments in lakes like Honeoye.

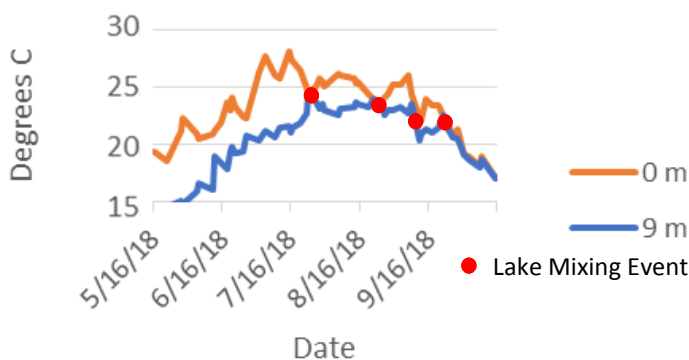
The warming climate trend which is causing our milder winters and earlier arriving spring-times has created ideal growing conditions for another type of blue green algae that we usually only see in the first few weeks of early summer. It is called *Gloeotrichia* sp. and is very easy to identify. It occurs in round colonies, brownish in color, and large enough to see from the side of a boat or off a dock. *Gloeotrichia* sp. is very different from the other blue-green algae in that it absorbs nutrients directly from the shallow-water bottom sediments during early stages of its life history rather than acquiring nutrients from the water. When buoyant, wind can spread these large colonies throughout the lake. In essence, *Gloeotrichia* is a biological shunt moving nutrients from shallow lake substrates out into the open waters of the lake.



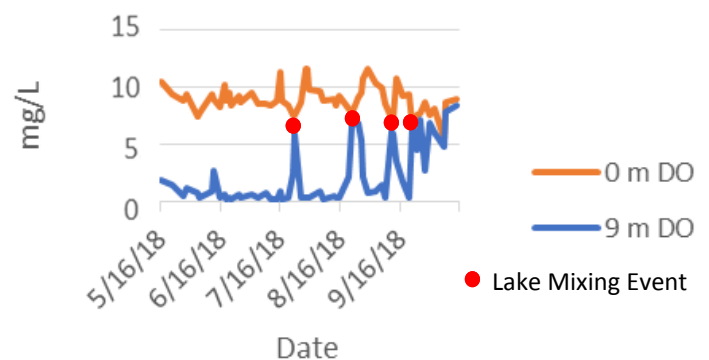
*Gloeotrichia* sp.

It was present most of July and August in 2019. After the late August mixing event *Anabaena* sp. and *Microcystis* sp. became the dominant blue-green algae species and *Gloeotrichia* sp. rapidly diminished.

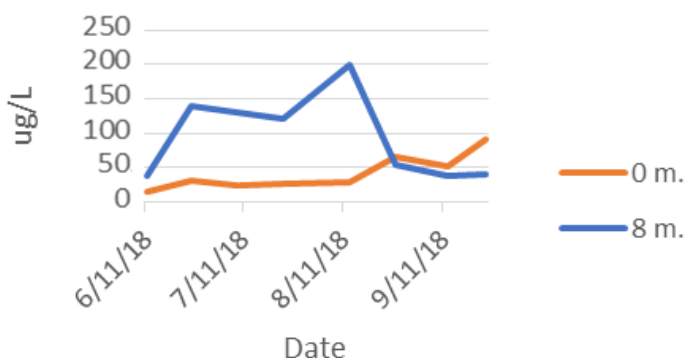
## 2018 Water Temperature



## 2018 Dissolved Oxygen (DO)



## 2018 Total Phosphorus (TP)



# Honeoye Lake Dominant Blue-Green Algae Species

## (scientifically called Cyanobacteria)



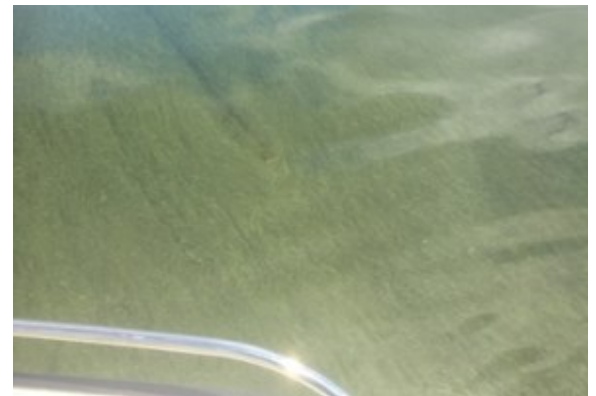
### ***Gloeotrichia sp.* – Typically abundant mid-June to late July**

When *Gloeotrichia sp.* dies back its dormant cells (like seeds) sink to the lake bottom in shallow water. Then during a mild winter, with early ice out and a warm spring these cells absorb nutrients directly from the bottom sediments. Usually *Gloeotrichia sp.* blooms start happening in mid-June in isolated nearshore areas. *Gloeotrichia sp.* blooms will continue until we have *Anabaena* and *Microcystis* blooms usually by late July. *Gloeotrichia sp.* grows as round brownish colonies. They are large for algae – visible just looking over the side of a boat and easy to identify.

### ***Anabaena sp.* – Typically July and August**

*Anabaena sp.* blooms will usually start occurring in July when there is a high level of phosphorus in the lake water. The phosphorus could come from either a lake mixing event or large rainstorm run-off.

*Anabaena sp.* can “fix” nitrogen ( $N_2$  gas) from the air for use in growth and does not need other forms of nitrogen to be present in the lake water to reach bloom levels. *Anabaena sp.* is a small filamentous algal species that can look like green pea-soup on the water’s surface.



### ***Microcystis sp.* – Typically August and September**

*Microcystis sp.* blooms usually start in August after we have had a lake mixing event due to high winds and/or cold rain. This is because after a lake mixing event both phosphorus and ammonium (a form of organic nitrogen), that were released into the deep-water from lake bottom sediments while the lake was stratified, are mixed into the surface water where they can stimulate an algal bloom. *Microcystis sp.* needs organic nitrogen to be in the lake water to bloom because it cannot fix nitrogen from the air like *Anabaena sp.* *Microcystis* blooms can look like green clumps or green paint on the water’s surface.

Other blue-green algal species present in Honeoye Lake are *Aphanizomenon sp.*, *Planktothrix sp.*, *Lyngbya sp.* and *Woronichinia sp.*

All blue-green algal species are capable of producing toxins. The NYSDEC recommendation for dealing with Harmful Algal Blooms is to “To know it, AVOID it, Report it!”.

<http://www.dec.ny.gov/chemical/77118.html>

<https://www.dec.ny.gov/chemical/83310.html>



All photos credited to Terry Gronwall, HLWTF



# Mill Creek Habitat Restoration & Bank Stabilization Project



**BEFORE**



**BEFORE**



The Town of Richmond partnered with the U.S. Fish and Wildlife Service and Ontario County Soil & Water Conservation District to implement a stream restoration project along Mill Creek within Sandy Bottom Park. This restoration project will significantly reduce sediment inputs, improve aquatic functions, and reduce the potential threats to private residential homes and public infrastructure. By using nature based design structures like toewood and stream rock structure, this project stabilized the eroding banks while providing improved fish habitat. The goals of this stream restoration project were to enhance stream habitat, reduce concentrations of sediment, detain and slow runoff, and provide stable conveyance of flows through the stream channel. Prior to the construction, the NYS Department of Environmental Conservation, USFWS, and Ontario County SWCD spent a morning electroshocking this section of Mill Creek to evaluate the current fish population. They will survey this area again in 2020 to evaluate any population changes. Ontario County Highway Department provided the final stabilization by hydroseeding the disturbed areas. Be sure to check this out the next time you are at Sandy Bottom Park. It is accessible from the East Lake Road parking lot.

**AFTER**





## Honeoye Lake Shoreline Stabilization at Sandy Bottom Park

With funding from the New York State Department of Environmental Conservation Water Quality Improvement Project Grant Program, Ontario County Soil & Water Conservation District and the Town of Richmond installed a natural shoreline stabilization project using coir wrapped soil lifts that incorporate native plant materials. The rock placed in front of the project is necessary to reduce wave energy and ice scour seen at the north end of Honeoye Lake. Existing trees and shrubs were kept in place to keep the shoreline protected and over three dozen additional plantings as well as live stakes were added to promote deep rooted vegetation to further stabilize the shoreline. The NYS DEC promotes the use of natural materials to stabilize shorelines rather than hardened structures such as retaining walls and gabion baskets. A naturally vegetated shoreline helps reduce erosion, filters excess nutrients from entering the lake and provides habitat for fish and wildlife. Ontario County SWCD was able to obtain funding through the NYS Sea Grant to pay for the engineering and design work for this project. This stabilization project can be seen in Sandy Bottom Park, adjacent to the public swimming area.

**Before Photographs:**



Photo Credits: OCSWCD

**AFTER**





# Watercraft Stewards on Honeoye Lake, 2019

**By: Sam Beck-Andersen, AIS Project Manager, Finger Lakes Institute at Hobart and William Smith Colleges**

The Finger Lakes Institute's (FLI) Watercraft Steward Program (WSP) was back again at the Honeoye Lake State Marine Park (SMP) during the 2019 summer boating season. This year, our stewards provided supplementary coverage to another WSP managed by the New York Office of Parks, Recreation, and Historic Places (OPRHP). While managed by different groups, both programs abide by similar state guidelines for outreach messaging, standard inspection protocols, and data collection. Between the two programs, over 3,196 watercraft were inspected for aquatic invasive species (AIS) while stewards interacted with 6,502 individuals. Since FLI stewards typically covered Monday-Wednesday at the launch, and OPRHP stewards covered Thursday-Sunday, we have a great opportunity to compare differences in launch data during the weekdays vs. the weekends. One comparison that can be made between the two is evident in the "Inspections/Day" column of Table 1. This statistic is the total number of watercraft inspected divided by the number of days when inspections occurred. OPRHP's coverage from Thursday to Sunday shows that the weekends are busier at Honeoye Lake State Marine Park. FLI's coverage from Monday to Wednesday has less than half the number of inspections compared to OPRHP's number.

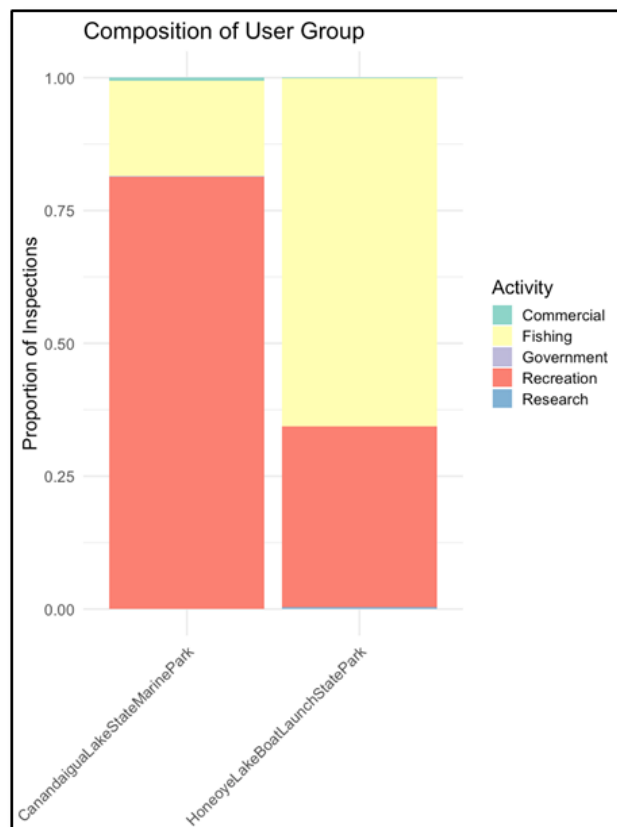
**Table 1**

Organization	Days Covered	Inspections	Inspections/Day	People Reached
FLI	39 (M-W)	772	20	1,477
OPRHP	46 (Th-Su)	2,424	52	5,025

Data for many WSPs around the state are collected using a survey tool called the Watercraft Inspection Steward Program Application (WISPA). WISPA utilizes GIS-enabled software to provide consistent and efficient data collection for 17 steward programs around New York State. Among other benefits, WISPA allows groups like the FLI the opportunity to analyze inspection data on a larger scale. One piece of data we collect is which activity a boater is taking part in. This helps us to define the proportion of different user groups present at a boat launch. Figure 1 displays the user groups found at Honeoye Lake State Marine Park by the two steward programs present at the site, and how they compare to another launch on nearby Canandaigua Lake. While Honeoye Lake SMP users are primarily anglers, anglers at the Canandaigua Lake SMP make up less than 25% of boaters. The FLI WSP uses this type of information to inform our stewards, so that they are better equipped to provide effective outreach. Approaching a group of anglers may be different from the way a steward approaches a young family of recreationists, and this information helps us to prepare stewards for those differences at a launch. Regardless of which stewards are present on a given day, the message to clean, drain, and dry watercraft is consistent and urgent!

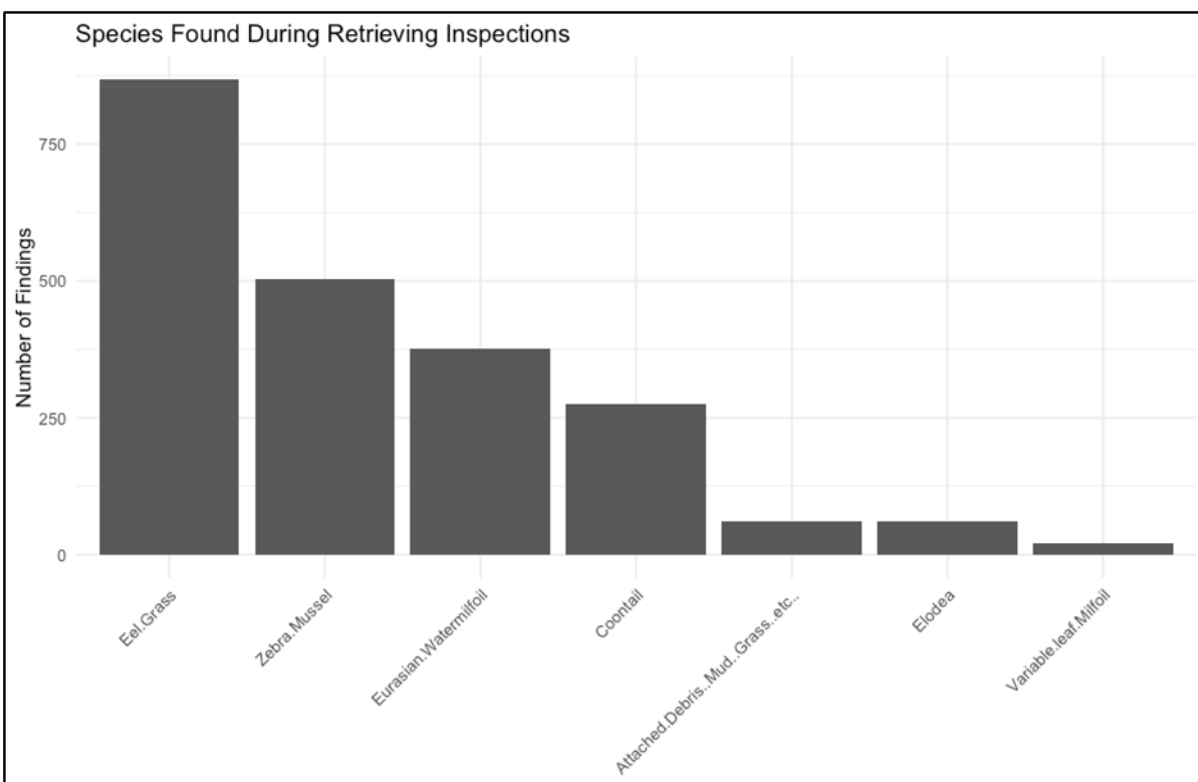
**Figure 1.** Composition of user groups at comparable boat launches in the Finger Lakes, 2019

This figure displays differences in user group proportions between Honeoye Lake State Marine Park, and another State Marine Park on Canandaigua Lake. While activities like commercial and research are consistently low or non-existent for each launch, the proportion of recreation and fishing vary greatly.

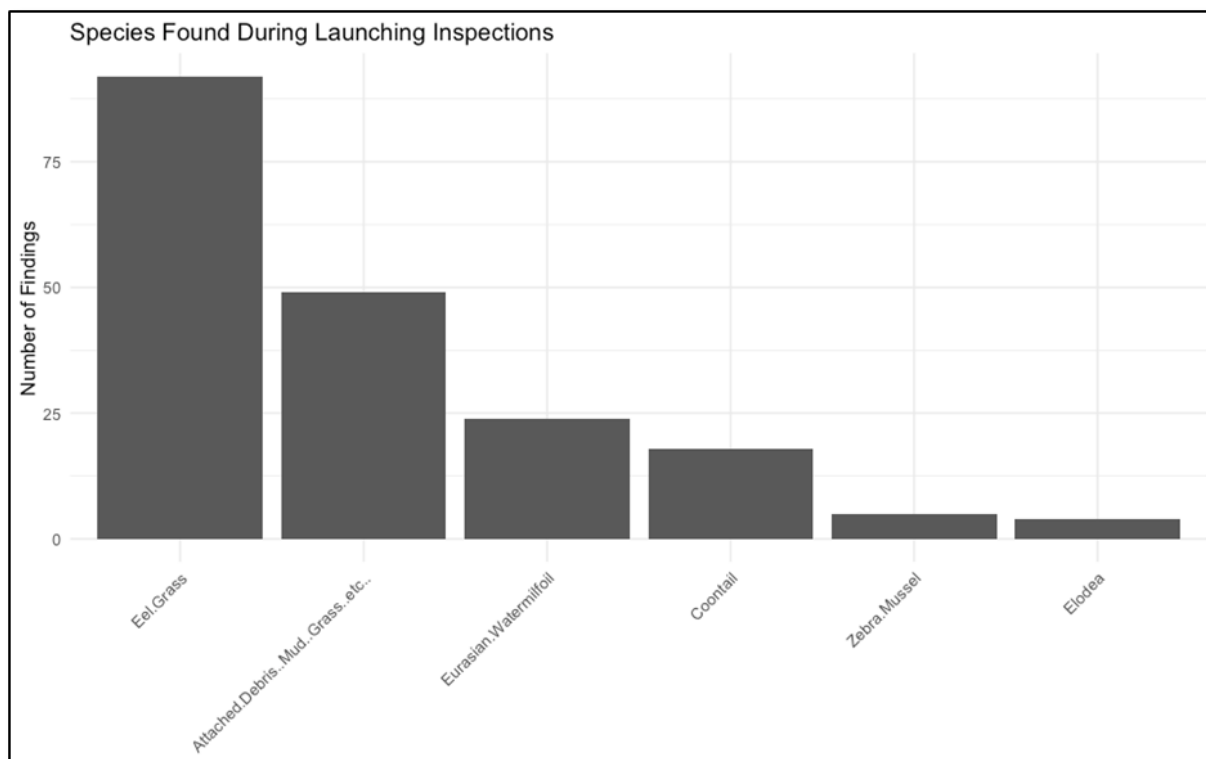


# Watercraft Stewards on Honeoye Lake, 2019 continued...

By: Sam Beck-Andersen



**Figure 2.** Species found during inspection of watercraft launching and retrieving at Honeoye Lake State Marine Park. This figure gives an overview of the different aquatic species found upon exit and entry from the Honeoye Lake. While the native eelgrass dominates the species found during inspections, invasive species like Eurasian watermilfoil and zebra mussels are still frequently found during these inspections.





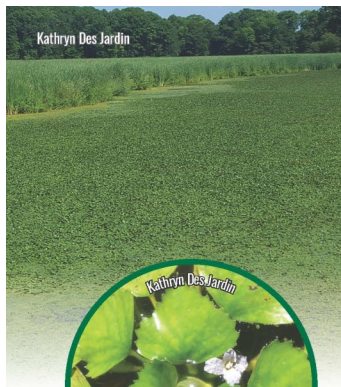
# Keep a Watchful Eye Out for Water Chestnut

Last summer a visiting kayaker who launched at the Sandy Bottom Park Boat Launch posted on Facebook a picture they took of a Water Chestnut plant about 30 feet directly south of the Boat launch. A staff member of the Livingston County Planning Department saw the picture of a Water Chestnut plant and reported it to us.



We went to this location and confirmed that the plant was Water Chestnut and took the above picture. When we returned to this location the next day the Water Chestnut plant was gone. We don't know if someone pulled it or it broke loose from the bottom sediments and drifted away. Please keep a watchful eye out for Water Chestnut plants next summer particularly near the Sandy Bottom Park Boat Launch, the NYS Public Boat Launch, and in the Honeoye Lake Inlet. This plant is usually introduced into a water body by a visiting water craft. This is a very aggressive invasive aquatic plant that may establish very dense populations. It thrives in shallow water depths with muddy bottom substrates. It often co-exists with native water lilies. If you see any aquatic plants that you think might be Water Chestnut, please let us know by e-mail at [watershedtaskforce@gmail.com](mailto:watershedtaskforce@gmail.com)

For more information on Water Chestnut see the Finger Lakes PRISM Water Chestnut Fact Sheet above.



## WATER CHESTNUT

*Trapa natans*  
Origin: Eurasia

**INVASIVE RANKING, NYS**  
Very High

**MANAGEMENT STRATEGY**  
Chemical  
Mechanical  
Physical  
Prevention

**DISTRIBUTION**  
(As of 2/2018)



Water chestnut is a floating-leaved, annual, aquatic plant. Linear, oppositely arranged submersed leaves are replaced by feathery adventitious roots early in the growing season. On the water surface, the plant forms a rosette of green, glossy, triangular floating leaves with toothed edges and inflated petioles. Plant stems are cord-like and can grow up to 5 m. Small, white, four-petaled flowers bloom from the center of the rosette during the summer, eventually producing large, four-spined seeds.

### HABITAT

Water chestnut grows best in quiet, shallow, high nutrient water bodies with a soft bottom substrate. They prefer waters with an alkaline or neutral pH.

### THREAT

Populations of this species can form very dense mats of interlocking and stacking rosettes. These thick mats completely shade the water column and suppress most other aquatic plant growth in the area. Dense mats also inhibit boating, swimming, and fishing. The seeds are painful when stepped upon.

### MANAGEMENT

Small populations can be controlled by hand pulling the plants prior to seed maturation. Large infestations have been controlled by the use of mechanical harvesters or the application of aquatic herbicides. Biocontrol options are in development. As always, the best management strategy is prevention through education and stewardship. As this species is most commonly spread through fishing and boating equipment, it is important to use precautions such as cleaning, draining, and drying your boat and other aquatic equipment before moving to another water body.

REFERENCE - U.S. Geological Survey. [2017]. Nonindigenous Aquatic Species Database. Gainesville, Florida. Accessed [6/8/2017].







# Healthy Lawns, Healthy Lake

Protect the water quality of Honeoye Lake and your property values by practicing healthy lawn care

A healthy lawn can improve water quality by **filtering, purifying and reducing** stormwater runoff.

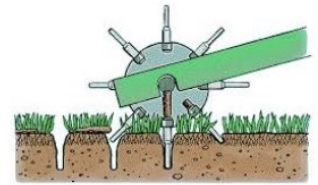
**Test Before You Treat.** A soil test can determine whether fertilizer is needed. Cornell University surveys indicate that only 1 in 10 lawns actually needs fertilizing. If fertilizer is necessary, apply in late May to early June or late August to early September. Use only fertilizers with slow-release nitrogen and zero phosphorus if possible. Follow all label directions and safety precautions. 1 lb. of phosphorus in the lake spurs the growth of 500 lbs. of aquatic plants.



**Check The Weather And Local Laws.** Don't apply fertilizer or other chemicals if rain is imminent; it will wash off in surface runoff. Don't let fertilizer or chemicals fall on sidewalks or driveways where it will wash into our waterways. The Town of Richmond has a local law prohibiting the application of pesticides and fertilizer within 50 feet of the lake or a lake tributary.

**Know The Pests.** Inspect regularly for pests to find problems early. Decide which species you can live with, and which you need to control. Try the many non-chemical alternatives to pesticides first, such as manual removal, biocontrol with other organisms or Integrated Pest Management (IPM). If you use chemical pesticides, follow the directions printed on the label. **Remember, not all bugs are bad.**

**Manage Thatch.** Thatch is a layer of decomposing plant tissue made up mostly of stems and roots, not grass clippings. A thin layer of thatch (up to ½ in.) above the soil is beneficial. A thick layer leads to increased disease and insect problems, drought stress, and winter injury. Thick thatch usually occurs on lawns that have been heavily fertilized and watered for constant lush growth. Compacted, poorly drained and acidic soil contributes to thatch problems. The use of pesticides can reduce or eliminate microorganisms that break down thatch. Mechanical removal works temporarily. Core aeration and topdressing are effective means of managing thatch.



**Promote Dense, Healthy Growth.** Plant disease-resistant seed, cut grass no less than 3 inches in height, and keep mower blades sharp; shredding grass blade tips invites disease. Leave grass clippings on the lawn for a natural fertilizer. You can mow over your leaves in the fall a few times in order to break them up. This will add nutrients to your yard naturally. Water early in the morning, not in the evening.

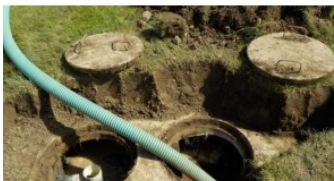


**Consider Planting Ground Covers Other Than Grass.** For example, Dutch White Clover was traditionally included in seed mixtures to "feed" the grass, as it fixes atmospheric nitrogen into the soil. Dutch clover grows only about 4" high, reducing the need to mow. Clover is durable, soft to walk on, and doesn't "dog spot." The deep roots of clover hold soil in place better than turf grass.

**Manage Your Stormwater With A Rain Garden.** Encourage infiltration of runoff water from your roof and driveway. Direct down spouts to a rain garden or infiltration point where vegetation will filter nutrients from the water. Drainage from your driveway or landscaping projects can carry pollutants. Rain gardens are beautiful and can create an inviting habitat for birds and butterflies. The native plants used in rain gardens are perennials that require less frequent care after establishment. No pesticides or fertilizers are required.



**Clean Up After Pets.** Animal feces contain nutrients, bacteria, and parasites that can contaminate the lake. Discard pet waste in your garbage collection.



**Maintain Wastewater Systems.** Although the shoreline of Honeoye Lake is serviced by sewers, residences farther away influence nutrient flow to the lake. Septic tanks should be pumped every 3-5 years to remove sludge that will not decompose. NYS Department of Health estimates a life span of 25 to 30 years for a properly maintained and serviced onsite wastewater system. Don't buy septic tank additives. They have never been proven to reduce or eliminate the need for pumping.

**Manage Your Stormwater.** Install a rain barrel to collect and store rainwater from your roof that would otherwise be lost to runoff and diverted to storm drains or streams. This will minimize the runoff of pollutants into our waterways and conserve treated drinking water. The water from your barrel can be used for watering gardens and lawns, topping off swimming pools, cleaning sidewalks, cleaning outdoor furniture, and the list goes on!





# 2020 TREE & SHRUB PROGRAM

ONTARIO COUNTY SOIL & WATER CONSERVATION DISTRICT  
480 NORTH MAIN STREET, CANANDAIGUA, NY 14424 (585)396-1450

[WWW.ONTSWCD.COM](http://WWW.ONTSWCD.COM)

Trees and shrubs must be ordered in quantities listed or in multiples of those listed. Call for quantities over 1000.

## ALL SPECIES IN LIMITED QUANTITIES

### Pricing

10/\$15 of same species  
25/\$25 of same species  
100/\$100 of same species

### CONIFEROUS TREES

<u>Species &amp; Size</u>	<u>Quantity</u>	<u>Cost</u>
American Arborvitae (White Cedar) 10-18"		
Colorado Blue Spruce 10-16"		
Concolor Fir 8-14"		
Douglas Fir 9-15"		
White Pine 6-14"		
White Spruce 9-15"		

### Pricing

10/\$15 of same species  
25/\$25 of same species  
100/\$100 of same species

### DECIDUOUS TREES & SHRUBS

<u>Species &amp; Size</u>	<u>Quantity</u>	<u>Cost</u>
Black Cherry 12-18"		
Black Chokeberry 12-18"		
Buttonbush 10-18"		
Eastern Redbud 18-24"		
Nannyberry 8-16"		
Native White Birch 12-18"		
Red Osier Dogwood 10-18"		
Sugar Maple (The NYS Tree) 6-12"		
Swamp White Oak 12-18"		
Sycamore 12-18"		
White Flowering Dogwood 12-18"		
White Oak 12-18"		
Witch-Hazel 8-20"		

### PACKETS

	<u>Quantity</u>	<u>Cost</u>
<b>Evergreen</b> (2 each – Balsam Fir, Colorado Blue Spruce, Douglas Fir, White Pine, White Spruce)	\$20	
<b>Shade</b> (2 each – Hybrid Poplar, Red Maple, River Birch, Silver Maple, Sycamore)	\$20	
<b>Native Flowering</b> (2 each – Black Chokecherry, Eastern Redbud, Elderberry, Nannyberry, White Flowering Dogwood)	\$20	

### SUPPLIES (Tax Included)

	<u>Quantity</u>	<u>Cost</u>
Bluebird Nest Box (The NYS Bird)	1/\$15, 5/\$70	
Fluorescent Marking Flags	10/\$2, 100/\$15	

**GRAND TOTAL \$** \_\_\_\_\_

All species are bare rootstock. Species subject to change without notice. The District reserves the right to refund payment for species if unavailable. The District will NOT be responsible for the success or failure of plantings.

Orders with payment must be placed by **March 6, 2020**

Enclose check payable to **Ontario County SWCD**

#### PICK-UP TIMES/DATES:

**8:00 am to 4:00 pm, FRIDAY, APRIL 24, 2020 - Arbor Day**

**8:00 am to 12:00 NOON, SATURDAY, APRIL 25, 2020**

#### LOCATION:

**Ontario County Fairgrounds**

**2820 County Road 10, Canandaigua, NY 14424**

NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

PHONE: ( \_\_\_\_\_ ) \_\_\_\_\_

In compliance with New York State Sales and Use Tax Regulations, 20 NYCRR, Section 529.2(c) - All trees and shrubs are to be used for effective conservation practices such as windbreaks, soil erosion control, etc. and will not be planted for ornamental purposes. Trees and shrubs sold will not be removed with roots attached for resale.

**Honeoye Lake Watershed Task Force was formed in 1998 by:**  
**Town of Richmond**  
**Town of Canadice**  
**Town of Bristol**  
**Town of Naples**  
**Town of South Bristol**  
**Honeoye Valley Association**  
**To Protect and Improve the Water Quality of Honeoye Lake.**

**Voting Members Include:**

**Terry Gronwall**, Councilmember, Town of Canadice (Chairman)

**Dave Baker**, Councilmember, Town of Richmond

**Al Favro**, Representative, Town of Bristol

**Ann Jacobs**, Representative, Town of South Bristol

**Mark Adams**, Representative, Town of Naples

**Lindsay McMillan/Caroline Sauers**, Honeoye Valley Association



**Permanent Professional Support is Provided by:**

**Megan Webster, Katie Lafler, Alaina Robarge**; Ontario County Soil & Water Conservation District (OCSWCD)

**Dr. Bruce Gilman**; Finger Lakes Community College (FLCC)

**Tom Harvey, Betsy Landre**; Ontario County Planning Department

**Project Specific Professional Support is Provided by:**

**NYS Department of Environmental Conservation**

**Finger Lakes Community College**

**Cornell Cooperative Extension of Ontario County**

**Ontario County Water Resources Council**

**Princeton Hydro Consulting**

**Finger Lakes Institute**

**Cornell University**

**The Nature Conservancy**

**Finger Lakes Land Trust**

**Further Information may be obtained by contacting:**

**Chairman Terry Gronwall at**  
**[watershedtaskforce@gmail.com](mailto:watershedtaskforce@gmail.com)**



Honeoye Inlet  
Photo Credit: Dr. Bruce Gilman, FLCC