

Honeoye Lake Watershed Task Force Newsletter

Fall 2016



Photograph: Terry Gronwall

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Honeoye Inlet Restoration Project

Stream Channel Construction Completed in October 2016

The Inlet Restoration Project will restore a more natural stream design to the area south of Honeoye Lake.

The project will also improve wildlife habitat and provide water quality benefits by reducing phosphorus and other nutrients.

The site is owned by the NYS DEC and is designated as the Honeoye Inlet Wildlife Management Area. The land is open to the public and contains swamp forest, marshland, old field and upland forests habitats.

Over many decades, the Honeoye Lake Inlet had been straightened, deepened, and channelized for agricultural purposes.

Several straight, narrow feeder ditches were established to dry out the old fields along the valley floor thereby enhancing their agriculture value. However, this allowed large amounts of sediment and nutrients to flow quickly to the inlet rather than the natural slow flow across the landscape that previously existed.

The Honeoye Lake Inlet Restoration Project was funded under Round 12 of the NYS DEC Water Quality Improvement Program and over \$50,000 of private donations to the Nature Conservancy.

Photograph: Megan Webster: Before restoration.



Photograph: Megan Webster: Work in progress.



The Ontario County Soil & Water Conservation District (OCSWCD), NYS DEC, The Nature Conservancy, Honeoye Lake Watershed Task Force and the US Fish and Wildlife Service are partnering to disconnect the existing deepened straightened channel and create a new shallow, meandering channel that will re-connect the inlet to its historic flood plain and encourage sediment and nutrients to filter out of the water naturally prior to reaching Honeoye Lake.

The channel was constructed to US FWS Service engineering specifications and ditch plugs were installed at many of the large ditches entering the inlet area. All new stream channel construction work was completed using a tracked excavator and bulldozer. Spoils from the newly created channel were used for ditch plugs and/or spread adjacent to the area and seeded and mulched immediately. The former straightened channel now consists of filled sections and vernal pool sections, a habitat of great value to reptiles & amphibians.

The project was designed by the US Fish and Wildlife Service with input from OCSWCD. The construction work began in September and was completed in early October. OCSWCD conducted inspections and monitoring of the construction site to ensure compliance with the SPDES General Permit for Stormwater.

Honeoye Lake Inlet Restoration Project Pictures



Photograph: Art Kirsh, Senior Wildlife Biologist, NYS DEC Avon



Photograph: The Nature Conservancy

Honeoye Lake Inlet Restoration Project Pictures



Photograph: Megan Webster



Photograph: Bruce Gilman

HLWTF Chairman's Project Update: Terry Gronwall

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

The common focus of these Honeoye Lake Watershed Management Plan-based projects is to implement Best Management Practices (BMP's) to reduce external sources of nutrients and sediments reaching Honeoye Lake.

NYSDEC WQIP Round 11 Grant Project: Ontario County Soil and Water Conservation District and HLWTF have received a NYSDEC Water Quality Improvement Program (WQIP) Round 11 Grant for over \$170,000 including local match funding to address stream bank erosion in public road right of ways, build several detention basins and vernal pools in the Honeoye Lake Watershed. Implementation in progress. Will be completed in 2017.

NYSDEC WQIP Round 12 Honeoye Lake Inlet Restoration Project: This project includes four elements that work together to allow inlet stream flows during storms to spread out, slow down and drop sediment and nutrient loadings before reaching the lake. OCSWCD received the grant award for \$300,000 with \$100,000 local match to fund the implementation of this project, which began in September and was completed in Early October.

NYSDEC WQIP Round 13 Proposed Mill Creek Streambank Stabilization Project: OCSWCD submitted a WQIP Round 13 Grant proposal in late July. This project would stabilize 450 linear feet of severely eroding streambank along Mill Creek in the Town of Richmond. The goal of the project is to minimize sediment and associated nutrients entering the stream and assist channel realignment and reconnection of the flood plain to aid flood control for the local area. Grant awards should be announced by the end of 2016.

Blue-Green Algae Monitoring Project: At the request of NYS DEC, samples are being collected weekly from Honeoye Lake June through October 2016 for testing of blue-green algae blooms and toxin levels. Results are posted on DEC Harmful Algal Blooms web site on Friday afternoons.

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

Cornell-FLCC-HLWTF Honeoye Lake Research Collaboration: Professors Nelson Hairston (CU) and Bruce Gilman (FLCC), in collaboration with HLWTF Chairman Terry Gronwall and Dorothy Gronwall are studying the potential causes of summer blooms of cyanobacteria (blue-green algae). This new 3-year (2016-2018) research project is funded by a grant from the US Department of Agriculture and Cornell's Atkinson Center for a Sustainable Future.

Cornell Thiamine Measurement in Honeoye Lake: Thiamine is a key organic compound that may influence the occurrence of harmful algal blooms. Binbin Wang, Cornell PhD candidate, hopes to achieve a clear understanding of the role of thiamine in algal blooms by determining the concentration of thiamine and the changes in community composition and biomass of algae in Honeoye Lake during 2016.

Finger Lakes Institute FluoroProbe Project: The goal of this 2016 project was to characterize algal blooms throughout a summer season in Honeoye Lake. Assessing the water chemistry conditions before, during and after successive algal blooms will help to determine factors associated with the blooms.

Finger Lakes Institute Nitrogen Research Project: Freshwater systems are thought to be phosphorus limited. Current management practices aim to curb harmful algal blooms (HABs) by phosphorus control strategies. Despite these controls, HABs continue to proliferate. Research shows cyanobacteria growth is higher with the addition of both phosphorus and nitrogen compared to either nutrient alone. The goal of this 2016 project is to determine what role nitrogen may play in Honeoye Lake HABs.

These efforts to improve Honeoye Lake and watershed water quality are a true partnership between The Nature Conservancy, NYS DEC, 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 me at: Terry Gronwall, HLWTF Chairman: (585)367-3000 watershedtaskforce@gmail.com

NYS DEC Water Quality Improvement Project Round 11 Water Control Measures for Sediment Reduction, Streambank Protection and Bank Stabilization

The Honeoye Lake Watershed, formerly an agricultural area, is reforested and reverting to natural vegetation in many areas. Legacy sediment loading in waterways is extensive.

This sediment, coupled with predominantly high gradient streams and increasingly intense storm events, causes higher sediment and nutrient loading in the target waterbodies.

Streambank stabilization, roadbank stabilization, debris guards for culverts and other water control measures have been

designed to address the problems of watershed sediments and nutrients entering Honeoye Lake as well as reduce flooding and improve upland water storage.

In this cooperative effort, Ontario County SWCD and the Ontario County Department of Public Works have been working together to design and install these improvement projects with funding from the NYSDEC Water Quality Improvement Program.

The necessary permits have been obtained and the projects are ongoing and should be completed by 2017.



Left: Water Control Structure at Muller Field Station: Improved drainage swale & standpipe control completed

Right: Rock armoring of erosion prone streambank at Muller Field Station

Photographs: Megan Webster



Improved Drainage at Sandy Bottom Park

Installation of a drainage culvert to divert water belowground into the wetlands around Honeoye Creek will help keep the feet of park patrons dry while preventing flooding and erosion.



Sandy Bottom Park flooding before installation.



Photographs: Megan Webster

Vernal Pool Workshop held at Cumming Nature Center June 18, 2016

Vernal pools, also called ephemeral pools, are temporary pools of water that provide habitat for distinctive plants and animals.

The pools are a type of wetland, usually without fish, that allows safe development of amphibian and insect species unable to withstand competition or predation by fish.

Flood mitigation, groundwater infiltration, water storage and habitat enrichment for many species of plants and animals are additional benefits of the newly created vernal pools.

A **Vernal Pool Workshop** held at Cumming Nature Center featured presentations by Jim Curatolo of The Wetland Trust and Maura Sullivan, FLCC.

A vernal pool installation was completed by staff of the Upper Susquehanna Coalition to demonstrate construction of these small wetland features.

Volunteers and FLCC Conservation Department students assisted in construction of the vernal pools and used Forestry Best Management Practices, planting appropriate native species.

Most vernal pools are dry for at least part of the year, and fill with spring rains and winter snow melt. Some pools may remain at least partially filled with water over the course of a year, but all vernal pools dry up periodically.

Upland areas around a vernal pool are critical to the survival of some species. Many amphibians that breed only in vernal pools spend most of their lives in the uplands within a few hundred feet of the pool. Eggs are laid in the vernal pool, then juveniles leave the pool two or three months later, returning the following spring to breed.

Many more vernal pools enriched Finger Lakes landscapes in prior decades, but were drained for agricultural or development reasons.

Opportunities to view wildlife are among reasons that private homeowners might wish to create or restore a vernal pool on their property.



Watch for an announcement:

Forestry Workshop

Installation of
Forestry BMPs
hosted at
Muller Field Station
Spring 2017



Fig. 1 Erosion over a logging trail

Image: SUNY ESF

NYS DEC Water Quality Improvement Program Round 13 Proposal Mill Creek Streambank Stabilization Project

The purpose of the Mill Creek Streambank Project is to stabilize 450 feet of streambank thereby reducing erosion and sedimentation. Streamflow will be redirected to the centerline of the channel with bioengineering techniques.

*Right:
Bendway Weirs
(NRCS Photo)*

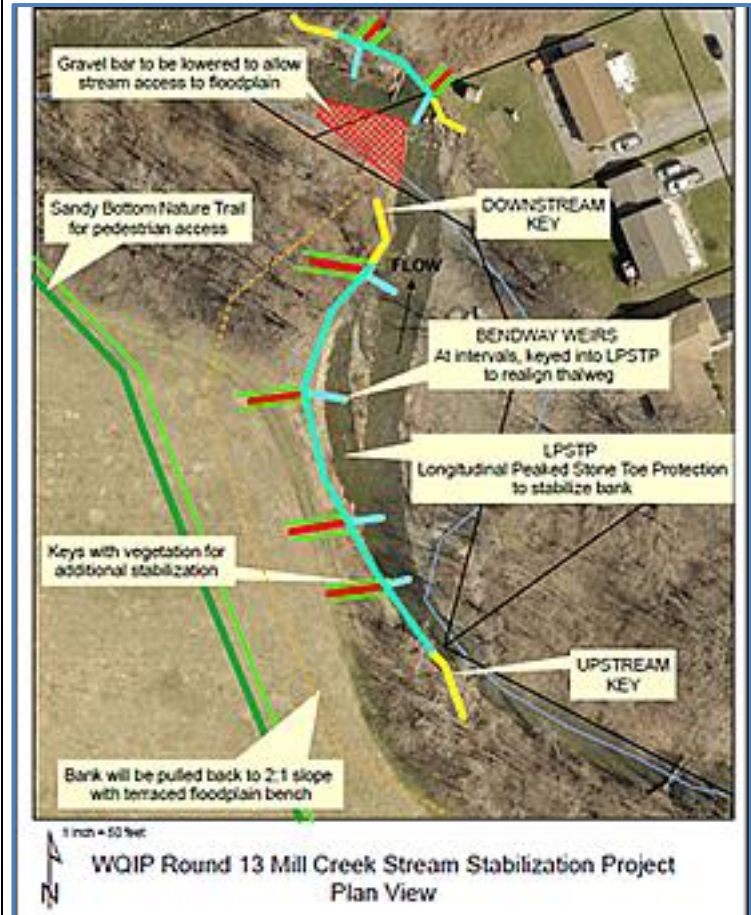


The bendway weirs noted on the map to the right are low level rock structures positioned from the outside bankline of the creek bend, angled upstream toward the flow. Their position and alignment alter the current in a manner that reduces streambank erosion on the outside of the bend.

Flood resiliency and wildlife habitat will be improved with vegetative plantings. Plans include improved public access along the Sandy Bottom Nature Trail.

The Town of Richmond supported the application for grant funding (75% grant/25% match) requested in July 2016. Grant funding awards expected to be announced in late 2016.

*Photographs: Mill Creek site:
Nathan VanBortel and Tucker Kautz assessing work site.*



NYS DEC Calls For Installation Permits and Seasonal Removal of Benthic Barriers

Beginning in the summer of 2017, a DEC permit will be required for installation of benthic barriers in New York Lakes. More information will be provided when it becomes available from DEC.

Benthic barriers, sometimes called benthic mats, prevent plant growth by blocking out the light required for photosynthesis and growth. The barriers also provide a physical barrier to growth by reducing the space available to the plants. Most aquatic plants under these benthic barriers will die if they are light-deprived for at least 30 days. Mats are a non-selective control strategy. Proper siting of the barriers is necessary to selectively control only those plants under the barrier, not desirable neighboring plants.

Covering the near-shore lake bottom may eliminate some species of benthic invertebrates (small insect larvae and crustaceans that fish feed on) and it is possible that the barriers may interfere with some warmwater fish spawning.

Heavy plant growth can make installation difficult, so barrier placement is usually done in early spring after ice-out. During the summer, barriers can be applied after a harvester has cleared the area. Barriers must be securely fastened to the bottom with stakes or anchors and should allow gases from decomposing plant material to pass through to prevent "ballooning" or flotation of the barrier material.

The screening materials and anchors are to be removed at the end of the growing season. If not removed, organic material accumulates on top of the barriers and allows aquatic plants to grow on top of the barriers, thereby defeating the purpose of the barrier.

With proper maintenance, screening materials can last several seasons. Benthic barriers do not introduce toxic or hazardous chemicals, and do not involve extensive machinery. Some materials are likely to photodegrade in ultraviolet light, but the degradation products are said to be safe.

Benthic barriers are among the safest and most ecologically sound in-lake physical control techniques. They have been effectively used in a wide variety of conditions and for many varieties of nuisance vegetation. Because they can blend in with the natural environment, are usually not noticeable from the shoreline, and don't interfere with many recreational activities, benthic barriers often afford the greatest public satisfaction.

Yard Waste Collection 2016

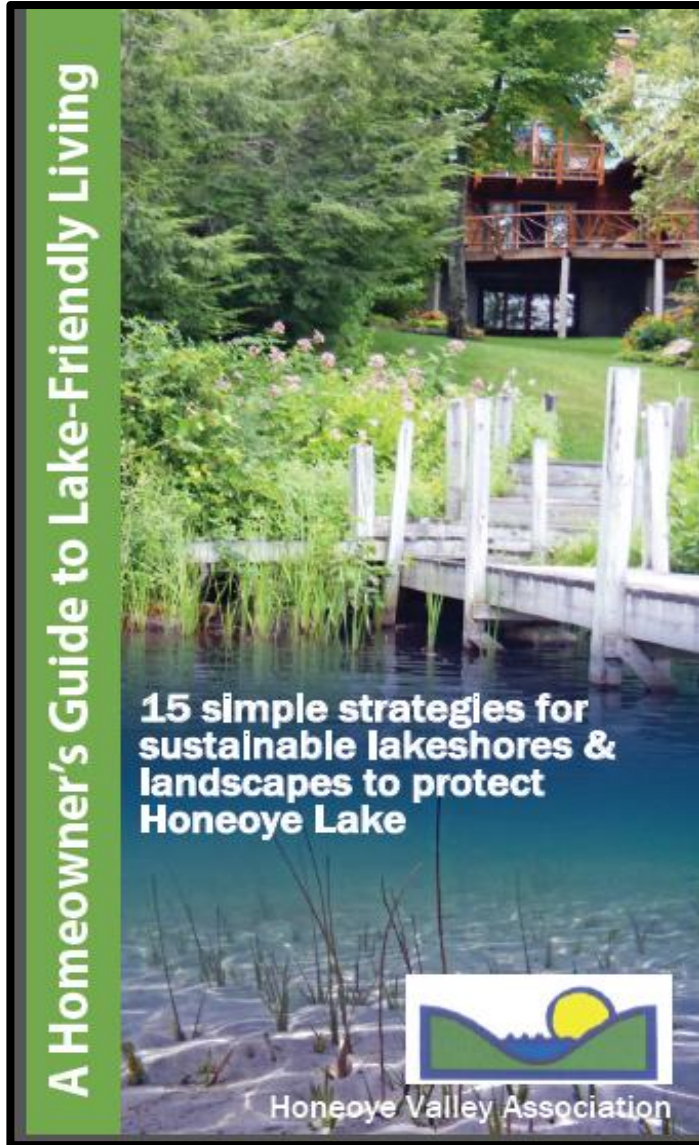
Available to all residents of the Honeoye Lake Community.
Open every day from dawn to dusk until the end of November.

**Bring Your Yard Waste to
Richmond Municipal Brush Pit
4947 East Lake Road**

Leaves, grass clippings, garden debris,
branches, aquatic weeds accepted.
(per NYS Conservation Law Part 360-1.2(b))
Please remove materials from all bags.



A Homeowner's Guide to Honeoye Lake-Friendly Living



A **Guide to Lake-Friendly Living** has been published by the Honeoye Valley Association. The Guide outlines fifteen simple strategies to protect the lake from unwanted contamination.

The goals of the publication are to educate and encourage residents to:

- Minimize runoff
- Reduce pollutants and to
- Capture and infiltrate runoff.

Topics outlined in the Guide are:

1. Reduce Impermeable Surfaces
2. Limit Lawn Size
3. Use Water Wisely
4. Minimize Erosion
5. Be Smart About Lawn Care
6. Use Phosphorus-Free Fertilizer
7. Maintain Your Septic System
8. Don't Flush Your Drugs
9. Maintain Your Vehicles
10. Conserve Water
11. Reduce Household Hazardous Wastes
12. Install a vegetative buffer
13. Plant a Rain Garden
14. Go Native (with plantings)
15. Join HVA Today!

To learn more about how you can help protect Honeoye Lake, go online to:
www.hvaweb.org.

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Bald Hill Automotive
Canandaigua National Bank
CIG Insurance Agency
Curves of Honeoye
Dave's Towing Service
Java Mama Coffee House
Honeoye Auto Parts
Honeoye Commons

Honeoye Craft Lab
K&D's Valley Inn
Kevin W. Dougherty Funeral Home
Pete's Auto
Phase II Hair & Nail Design
Realty USA.com Honeoye
Schreiber Automotive
Richmond Automotive Center

Skill Glass Co. Inc.
The Cornerstone Market
Trident Marine
Ward's Lumber
West's Shurfine Food Mart
Ontario County Water Resource Council
Credits: Lake George Association

Trees For Tribs—3,000 Trees Heeled in: Awaiting Planting, Fall 2016

Thanks to HLWTF and Ontario County SWCD's participation in the **Trees for Tribs** program and DEC's designation of the Honeoye Lake Watershed as a priority area in the Genesee River area, two District employees, Megan Webster and Tucker Kautz, along with Gregg Sargis and Mat Levine from The Nature Conservancy, spent some strenuous hours heeling in 3000 native trees to preserve them for planting this fall.

Heeling in trees is a method of preserving the plants until sufficient time and appropriate weather is available. This affords protection from extreme heat and ensures easy access to the plants in the fall.

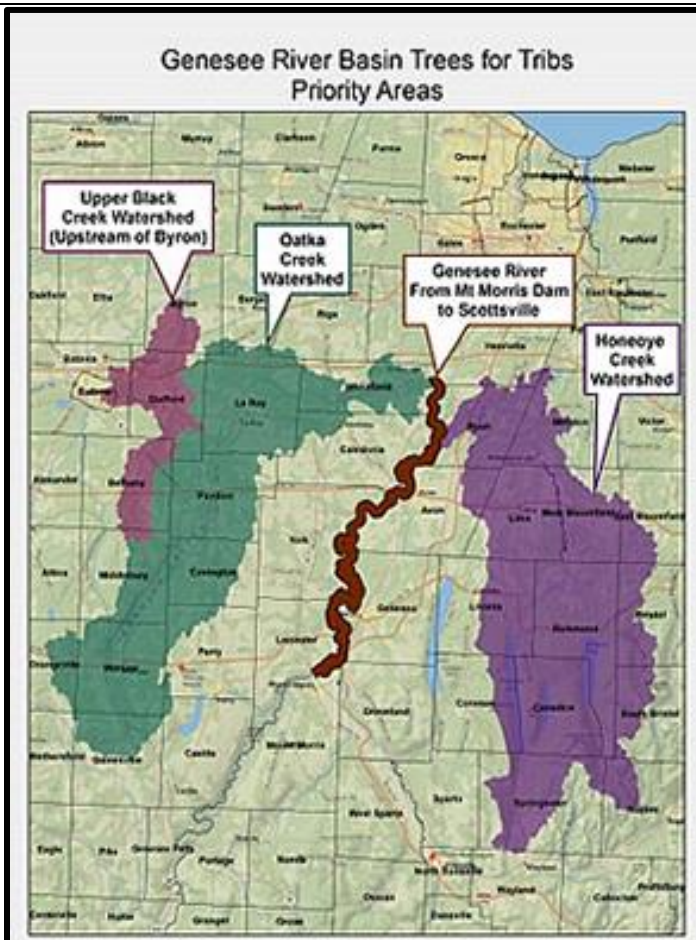
New York State's Trees for Tribs Program is engaged in reforestation of New York's tributaries that flow into larger rivers and lakes. Planting young trees and shrubs along stream corridors prevents erosion, increases flood water retention, improves wildlife and stream habitat, and protects water quality.

The native bare root trees and shrubs were provided by the Saratoga State Tree Nursery.

Trees for Tribs focuses on comprehensive watershed restoration designed to protect "green infrastructure," and serves as the first line of defense against storm and flooding events, protecting property, water quality, and fish and wildlife habitat.

In addition to planting trees, the program also promotes best management practices for communities and encourages new programs, policies and investments in tributary protection.

A community planting event will be held 9 AM- noon on October 25th 2016 at the Honeoye Inlet restoration project site to put these native plants in the ground and help reestablish vegetation along the new stream channel. Please join us!



Photograph: Megan Webster

Trees are also available for qualifying Honeoye Watershed homeowners. Contact information for the Genesee River Basin Trees For Tribs coordinator:

Megan Boberg

Email: mboberg@frontier.com

Phone: (585) 786-3675

Address: 36 Center Street, Warsaw, NY 14569

**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:

Steve Barnhoorn, Councilmember, Town of Richmond
Bill Hershey, Councilmember, Town of Canadice
Ann Jacobs, Representative, Town of South Bristol
Al Favro, Councilmember, Town of Bristol
Terry Gronwall, Honeoye Valley Association (Chairman)

Permanent Professional Support is provided by:

P J Emerick, Megan Webster, Edith Davey; Ontario County Soil and Water Conservation District
Dr. Bruce Gilman; Finger Lakes Community College
Tom Harvey, Betsy Landre; Ontario County Planning Department

Project Specific Professional Support is provided by:

NYS Department of Environmental Conservation
Finger Lakes Community College
The Nature Conservancy
Finger Lakes Institute
Cornell University
Cornell Cooperative Extension of Ontario County
Ontario County Water Resources Council
Princeton Hydro Consulting Services

Further Information may be obtained by contacting: Chairman Terry Gronwall at 585-367-3000.
watershedtaskforce@gmail.com



Photograph: Megan Webster: Tucker Kautz hydroseeding at Sandy Bottom Park drainage project.