

Honeoye Lake Watershed Task Force Update

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Honeoye Lake Watershed Task Force
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HVA Annual Meeting July 13th, 2019

“Life is a Journey, not a Destination”

Ralph Waldo Emerson

- Water Quality Improvement is a Journey, not a Destination



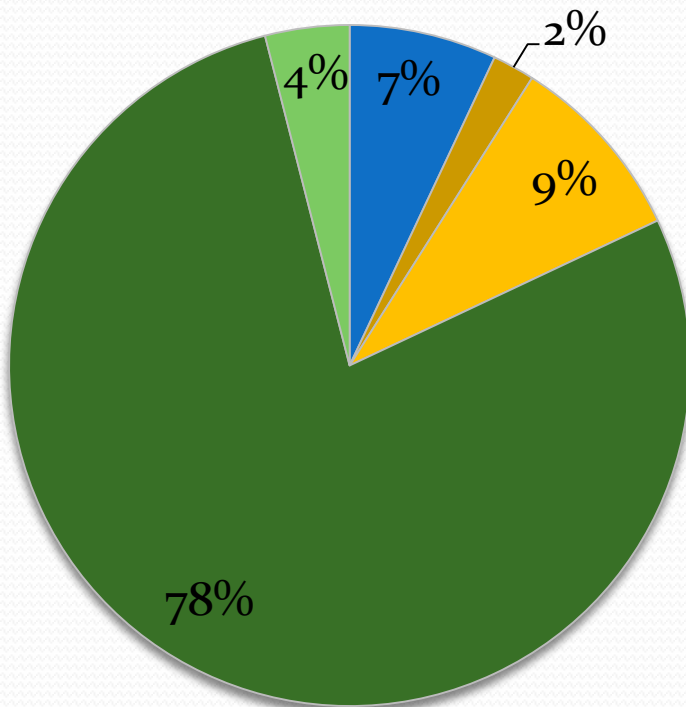
There is no Silver Bullet Solution!

DEC Phosphorus Loading Modeling Results

Honeoye Lake

Land Use

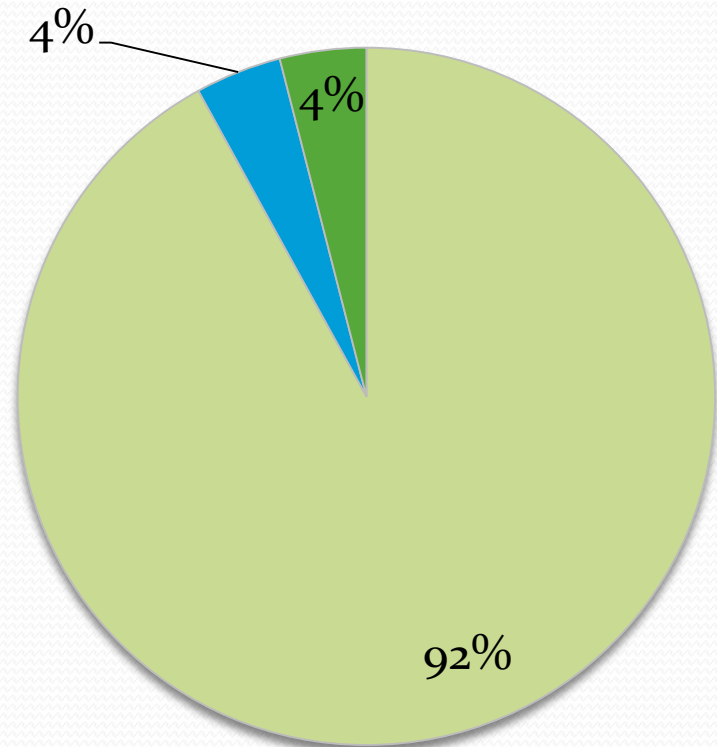
- Open Water
- Cultivated Crops
- Hay and Pasture
- Forest
- Developed Land



Honeoye Lake

Phosphorus Loading

- Lake Bottom Sediment
- Developed Land
- Forest



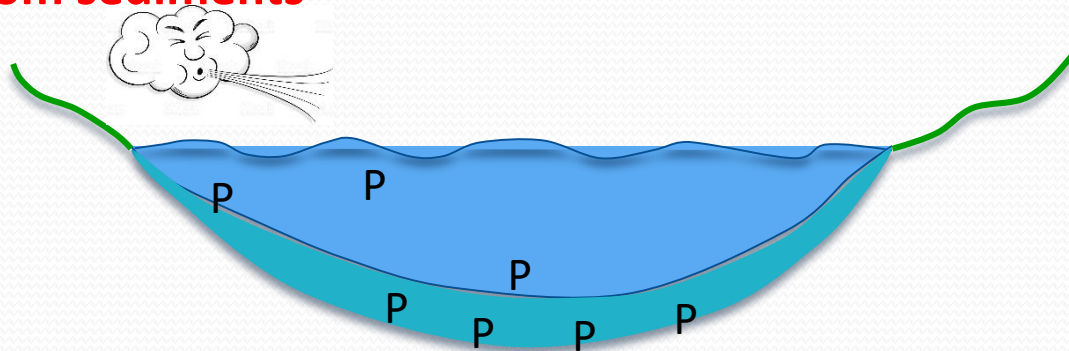
Dr. Nelson Hairston, Cornell University

How much of TP increase in epilimnion can be attributed to
P release from sediments into hypolimnion?

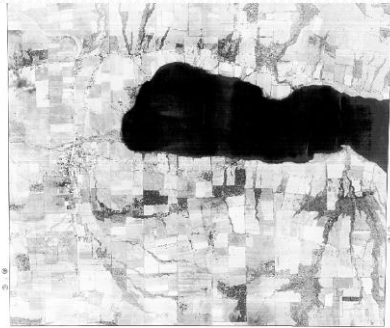
Internal loading (lake-sediment release of P)

2016 – *a dry year* - Between 68% and 100% of HAB phosphorus

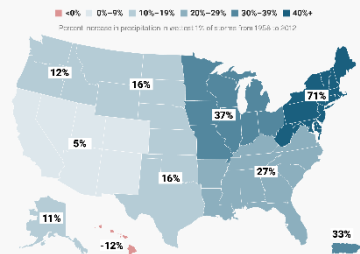
2017 – *a wet year* - Between 41% and 78% of HAB phosphorus explained by
P release from sediments



HABs Action Plan & TMDL Recommendations



The wettest 1% of storms are getting much wetter



Bowen U.S. Climate Change Research Program

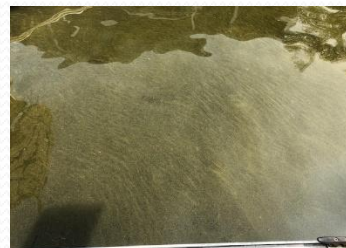
BUSINESS INSIDER



- In-Waterbody Nutrient Inactivation - High Priority
- Watershed Best Management Practices
- Anthropogenic – Human Caused Nutrient Sources

Recommended In-Waterbody Nutrient Inactivation Projects

- **Alum Treatment and/or**
 - Estimated cost \$700,000-750,000
 - Effective life span of 5-7 years
- **Aeration Destratification System**
 - Estimated cost \$1,500,000-2,000,000
 - Estimated operating cost \$30,000-50,000 pe year
 - Effective life span ~20 years
- **Recommendations will be effective at addressing mid-July to late September blue-green algae blooms.**
- **They will not mitigate June-July Gleotrichia blue-green algae blooms**



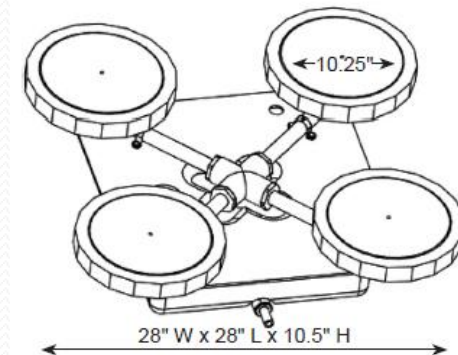
Potential Alum Treatment Status



- DEC position on Alum Treatments
 - DEC treated 2 small lakes with an Alum treatment last Apr
 - Plan to monitor these lakes for Alum effectiveness & impact to the aquatic ecosystem for 2 yrs
 - They will evaluate in 2021 whether or not they feel Alum is an acceptable in-waterbody nutrient inactivate or not
 - **No Alum Treatments permits will be issued until the DEC completes this evaluation in 2021 & releases revised Alum Treatment permit guidelines**

Potential Aeration Destratification System Status

- Lake Carmi, VT installed an aeration destratification system earlier this year
- We have relationships established with the VT DNR to monitor the effectiveness of this aeration system over time
- Lake Carmi is 1,400 acres with a maximum depth of 35 feet
- Lake Carmi has lots of agriculture land use in its watershed & private septic systems to mitigate too.
- Lake Carmi Aeration video:
- <https://www.mynbc5.com/article/state-tries-new-approach-on-northern-lake-plagued-by-cyanobacteria-outbreaks/28175096>
- HLWTF is currently evaluating the use of an aeration destratification system
- Plan to pursue a DEC WQIP aeration planning grant to fund a certified lake management consultant to do a detailed design, cost estimates, etc.
- Expected to take at least 2 years to secure funding and permit
- We will keep you posted as more information becomes available



Watershed Best Management Practices

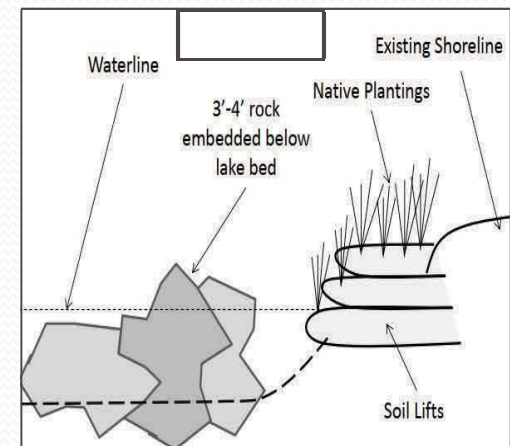
- Sediment Trap Pilot



Photo Credits:



- Sandy Bottom Park Bank Stabilization Project



Watershed Best Management Practices Inlet Restoration Project



- **Honeoye Inlet Project was Seneca Park Zoo Society's Environmental Innovation Awards winner (2018). Partners:**
 - The Nature Conservancy,
 - Ontario County Soil & Water Conservation District
 - NYS DEC
 - USFWS
 - HLWTF
 - HVA
 - FLCC
- Video
<https://m.youtube.com/watch?feature=youtu.be&v=Fa-xPBNfuw>
- Demarcate & Chronicle article & video 6/23/19
<https://www.democratandchronicle.com/story/news/2019/06/17/honeoye-lake-inlet-restoration-project-reduces-blue-green-algae-in-shallowest-finger-lakes/3733283002/>

Environmental Land Protection



- We are working with the Finger Lakes Land Trust and The Nature Conservancy to secure environmental protection for high priority land parcels in the Honeoye Lake watershed
- FLLT has a purchase contract in place for this 15-acre parcel
- FLLT's intention is to transfer this land to the NYS DEC to expand their Honeoye Lake Inlet Wildlife Management Area
- Please let us know of other high priority land that may become available for purchase or environmental land conservation easements

Anthropogenic – Human Caused Nutrient Sources HVA Initiatives

Rain Barrel Workshop: August 8th, 2019



The Honeoye Valley Association is hosting a Rain Barrel Workshop on Thursday, August 8th, 2019.

Come build a rain barrel at the Pavilion at Sandy Bottom Park and learn about how a healthy lawn can protect our lake! The cost is \$20 and you will leave with a 55 gallon rain barrel for your home.

Space is limited to 25 participants, so call (585)396-1450 today to reserve your spot.

There will be a "Healthy Lawns, Healthy Lake" presentation at the start of the workshop. If interested in only attending the presentation, feel free to stop in!

Installing a rain barrel is an easy way to protect our environment and save money! A rain barrel collects and stores rainwater from your roof that would otherwise be lost to runoff and diverted to storm drains or streams. Installing a rain barrel will minimize the runoff of pollutants into our waterways, conserve treated drinking water, and reduce demand on the wastewater treatment system. The rain barrel water can be used for watering gardens and lawns, topping off swimming pools, cleaning outdoor furniture, and the list goes on!

Call (585)396-1450 to register for the workshop.

Payment must be received by August 1st, 2019.

Mailing Address: Ontario County SWCD

480 North Main Street, Canandaigua, NY 14424

Please make checks payable to Ontario County SWCD

Phone: 585-396-1450 Fax: 585-396-1305

Email: alaina.robarge@ontswcd.com

PAYMENT MUST BE RECEIVED PRIOR TO THE WORKSHOP TO RESERVE YOUR SPOT.

When: 08/08/2019

Time: 6:00-8:00 pm

Where: Sandy Bottom
Park Pavilion
County Road 36
Honeoye, NY

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 runoff pollutants into our waterways, conserve treated drinking



water, and reduce demand on the wastewater treatment system. 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!



Do your part to
protect Honeoye Lake

Honeoye Valley Association
PO Box 165
Honeoye NY 14471

HEALTHY LAWNS,
HEALTHY LAKE



HONEOYE VALLEY
ASSOCIATION



Honeoye Valley Association
PO Box 165
Honeoye, NY 14471
www.hvaweb.org
honeyecontact@gmail.com

2019 DEC HABs Monitoring Program

Know it, Avoid it, Report it

- **Old DEC HAB Monitor Program**
- We monitored 10+ locations around the lake for HABs every Monday
- Collected 3-4 HABs samples for testing every week for 20 weeks
- DEC posted on their HABs Alert web page the results of our visual observations and lab testing results for our samples late Friday afternoon
- **2019 DEC HABs Monitor Program**
- We are still visually monitoring 10+ locations around the lake on every Monday for HABs
- The DEC has directed us to only take samples if we feel there is a bloom
- DEC HABs reporting will occur on their new HABs map on Tue/Wed.
- New DEC HABs map:
<https://nysdec.maps.arcgis.com/apps/webappviewer/index.html?id=ae91142c812a4ab997ba739ed9723e6e>
- New Public HABs reporting web page:
<http://www.dec.ny.gov/chemical/8331o.html>



Questions

- Water Quality Improvement is a Journey, not a Destination



There is no Silver Bullet Solution!