



Owasco Lake Watershed Inspection and Protection Division

2020 Annual Report

Division Mission:

To make regular and thorough inspections of Owasco Lake, its watercourses, and its watershed to identify compliance with the Rules and Regulations set forth for the Owasco Lake Watershed and to provide

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Owasco Lake Watershed Management Council (OLWMC)

2020 Summary



The glacial Finger Lakes are typically known for pristine water quality conditions, yet over the last decade the City of Auburn and Town of Owasco have experienced water quality challenges stemming from the presence of harmful blue-green algae blooms (HABs) on Owasco Lake that serves as a principle water supply for the region. The challenges and costs of treating surface water as a drinking water supply, and the degradation of water quality that poses threats to lake recreation and the local economy, have led to the advancement of water quality protection and restoration efforts locally.

The inter-municipal Owasco Lake Watershed Management Council (OLWMC) has advanced as a central hub for coordinating watershed protection and restoration efforts through: (1) organizational, personnel, education, and outreach capacity building; (2) increased revenue generation; (2) and the implementation of new watershed monitoring technologies. It is the OLWMC's vision that collective municipal representation watershed-wide will advance the Council's position to coordinate and prioritize water quality protection efforts and watershed improvement projects. This Vision is being met through improved communication with municipalities in need and the provision of education and outreach materials that promote conservation efforts throughout the greater watershed.

Through the 2020 calendar year, the OLWMC has played an active role supporting the rollout of both the Watershed Rules and Regulations (WRR) update project that proposes a new set of WRR that advance and better define local requirements relative to current WRR, and the 9E Watershed Plan that will serve to guide stakeholder interest, prioritize watershed improvement projects, and ultimately act as a pathway for New York State (NYS) project funding for the Council and its partners. The French and Metcalf Foundations each funded the OLWMC \$5,000 to help to cover vehicle costs for the Owasco Lake Watershed Inspection and Protection Division (OLWIPD) as the OLWMC continues to build capacity for the needs of the OLWIPD for watershed surveillance activities according to WRR.

The highly endorsed Lake Friendly Living pledge campaign piggybacks on a growing Finger Lakes regional effort and encourages increased awareness and buy-in for recommended land use conservation practices within the Owasco Lake Watershed. Associated program signage was, and will continue to be, installed throughout the watershed. Semi-monthly recognition articles submitted to the Citizen spotlighted watershed residents voluntarily making strides in land use conservation.

The OLWMC has advanced its website (www.OLWMC.org) to include these published recognition articles, the LFL program pledge, and invaluable reference materials. The OLWMC's Hyfi project targets tributary level sensor installations within the Owasco Lake Watershed to better inform managers and the public about dynamic stream flow conditions. The OLWMC's grant award through Hobart William Smith Colleges allowed for the purchase of a mobile billboard to be positioned at boat access locations along Owasco Lake to encourage boat owners to properly safeguard the lake from invasive species (photo).

Owasco Lake Watershed Management Council (OLWMC)

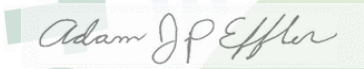
2020 Summary Cont'd

The OLWMC started 2020 hitting the ground running with important resolutions, increased local government funding support, and the submission of new project proposals. Resolutions in 2020 identified (1) the OLWMC's decision to hold real property in partnership with the Nature Conservancy's land acquisition initiatives that also support the organization's water quality and resource protection missions and (2) the appointment of the Town of Sennett to the OLWMC board. The OLWMC welcomes the voice of Sennett and is committed to engaging remaining municipalities that have yet to join.


Water purveyors, the City of Auburn and the Town of Owasco, are the primary source of annual revenue to the OLWMC. For 2021, the City of Auburn will maintain its annual contribution of \$200,000 and the Town of Owasco increased annual funding contributions by \$2,000 to \$27,000. Both water purveyors and watershed municipalities acknowledge the sense of urgency in the community for clean and safe lake water resource and recognize the need for funding the OLWMC's valuable work. The Towns of Fleming and Niles now contribute \$7,000 and \$2,000, respectively, and the Town of Scipio increased its contribution from \$1,500 to \$2,500. New funding from the Towns of Moravia and Sennett, and the Village of Moravia amount to \$1,000, \$2,500, and \$2,000, respectively.

The OLWMC is now well-positioned to target grants that can fund Council objectives and associated project initiatives. Recently, a local partnership-based proposal seeks to help fund farm planning efforts throughout the watershed. The OLWMC is looking forward to continuing to build relationships throughout the watershed community and will continue to strive towards advancing watershed protection and restoration efforts to protect Owasco Lake as a cornerstone to the community.

Sincerely,



Adam Effler, PhD, Executive Director



Ed Wagner, Chair

-Directors of the OLWMC-

City of Auburn: Debby McCormick

Town of Fleming: Don Oltz

Town of Locke: Thane Benson

Village of Moravia: Gary Mulvaney

Town of Owasco: Ed Wagner

Town of Sennett: Thomas Gray

Cayuga County: Aileen McNabb-Coleman

Village of Groton: Nancy Niswender

Town of Moravia: Terry Baxter

Town of Niles: Joan Jayne

Town of Scipio: Vivian Cunningham

Town of Summerhill: Charlie Ripley

Vacant Municipal Seats, Towns of: Groton, Venice, Skaneateles, Dryden, Lansing, Sempronius, Genoa

WATERSHED INSPECTION AND PROTECTION DIVISION

2020 SUMMARY

Landscape Conditions Observed

Aside from three widespread rainfall events, precipitation levels throughout the watershed were significantly below normal in 2020, resulting in drought and highly stable soil conditions. Dry stream beds and reduced rainfall resulted in relatively few runoff events and sediment plumes entering the lake from the surrounding landscape.

The watershed agricultural community continues to incorporate and advance management practices on farmsteads and crop lands to prevent runoff, particularly with the widespread increased use of cover crops for soil and nutrient stability. Despite a very moist post-harvest fall season in 2019, a tremendous effort was made by producers to cover thousands of acres of exposed crop soils with hardy grain crops and forage grasses. The use of cover crops significantly reduced the impacts soil and nutrient migration to waterways through snowmelt and rainfall during the spring of 2020.

Owasco Lake Watershed Inspection and Protection Division 2020 Summary

The Owasco Lake Watershed Inspection and Protection Division maintained a largely uninterrupted schedule of duties and operations, conducting regular surveillance of the Owasco Lake watershed throughout 2020. Primary activities included stream monitoring with a special emphasis on Sucker and Veness Brook sub-watersheds, responding to water quality threats, documenting cyanobacteria blooms, and participating in community engagement projects throughout the basin.

Mandatory social distancing protocols presented minor challenges to our surveillance efforts during 2020. However, staff were able to conduct nearly 100 site inspections uniformly throughout the watershed, targeting locations with new residential construction, steep slope disturbance issues, stream erosion, agricultural runoff, and septic failures. Among numerous issues and concerns discovered, six water quality violations were identified.

Regulatory and enforcement assistance from county, state, and federal agencies resulted in swift landowner responses to identified violations, achieving 100 percent compliance through timely implementation of critical corrective actions.



A runoff violation from a watershed ag operation was corrected in 2020. Before (above) and after (below) illustrate a dramatic improvement and compliance.



2020 Watershed Inspection Highlights

Infrastructure

Erosive velocities can carve away steep sloped ditches over time, transporting sediment and nutrients to the streams and Owasco Lake. Watershed highway crews are progressing rapidly with the implementation of a suite of velocity-reduction and stabilization practices throughout the ditch network.

<u>Watershed Feature</u>	<u># of Issues</u>
Water Conveyance Inspection	- 5
Roadside Vegetation Disturbances	- ~5 miles
Highway Culvert Repair	- 2
Total Site Inspections:	5
*Site Violations:	0



Agricultural

Despite hundreds of acres of cover crops planted in 2019, late spring plantings and wet autumn field conditions presented challenges for soil stabilization. The majority of producer operations within the watershed continue to demonstrate conscious efforts to protect soil and water resources.

<u>Land Use Concern</u>	<u># of Issues</u>
Animal Access to Stream	- 1
Barnyard Runoff	- 3 (1-NYS)*
Manure application/disposal	- 2
Field Drainage	- 1 (1-Federal)*
Operational Inspection	- 3
Total Site Inspections:	10
*Site Violations:	2



Stormwater/Construction Activities

New and monitored residential & commercial construction sites with ground disturbances of any size.

<u>Town</u>	<u># of Sites Inspected</u>
Owasco	- 6
Niles	- 3
Fleming	- 3
Skaneateles	- 1
Groton	- 5
Moravia	- 3
Scipio	- 5 (1 - DEC Stormwater)*
Locke	- 2 (2 - DEC Stormwater)*
Total Site Inspections:	28
*Site Violations:	3



2020 Watershed Inspection Highlights Cont'd

Miscellaneous Inspections

<i>Watershed Concern</i>	<i># of Occurrences</i>
<i>Sediment Basin Monitoring</i>	- multiple
<i>Residential Erosion</i>	- 1
<i>Suspicious Septic Systems</i>	- 7 (1)*
<i>Water line Repair</i>	- 1
<i>Well Water Contamination</i>	- 1
<i>Suspicious Odors/Drains</i>	- 5
<i>Shoreline Inspection</i>	- 1 (9 miles)
<i>Dam / Sediment Retention</i>	- 2
<i>Wetland Issue</i>	- 3
<i>Streambank Disturbance</i>	- 3
<i>Logging Activity</i>	- 2
<i>Beaver Dam Activity</i>	- 1
<i>Parcel Acquisition Site Visit</i>	- 1
<i>Structure Fire Runoff</i>	- 1
<i>Animal Disposal</i>	- 1
<i>Hazardous Material Spill</i>	- 1
<i>Roadside Trash Collected</i>	- hundreds of pounds
<i>Total Site Inspections:</i>	31
<i>Site Violations*</i>	- 1 (Cayuga Co Health Dept)



Special Projects

Municipal highway departments throughout the watershed were observed taking advantage of dry conditions in 2020 to conduct reparations to, and stabilization of, the structural water conveyance network, including roadside ditches, bridges, and culverts. The jurisdictions within the Tompkins County portion of the watershed were particularly active in 2020.

The Tompkins County Highway Department performed ditch maintenance on numerous stretches of roadways draining into the Owasco Inlet headwaters near Peruville and West Groton. Newly excavated ditch segments received vegetative (hydroseeding) and velocity control (stone armoring) practices in a commendable and timely manner.

The Village of Groton undertook extensive improvements to water conveyance infrastructure in 2020 that included the replacement of a failing culvert and the realignment of a damaged stream channel on a tributary of the Inlet.

Division staff participated in numerous community awareness projects during 2020. In cooperation with the Owasco Watershed Lake Association and Scout Troop 11 from Auburn, 140 storm drain educational “No Dumping*Drains to Lake” medallions were placed onto street storm grates throughout the Villages of Moravia and Groton, as well as the Hamlet of Locke. Staff advanced the Owasco Lake Watershed Management Council’s “Lake Friendly Living” campaign, distributing lawn signs to residents throughout watershed who took the pledge to follow recommended conservation practices in a manner that protects water quality.



Map Legend

Categorical Locations

Symbol

Infrastructure:



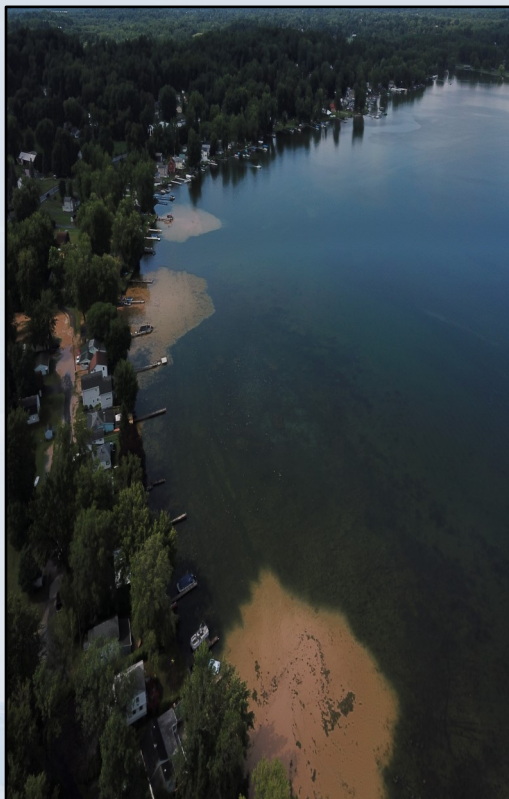
Construction /
Stormwater Sites:



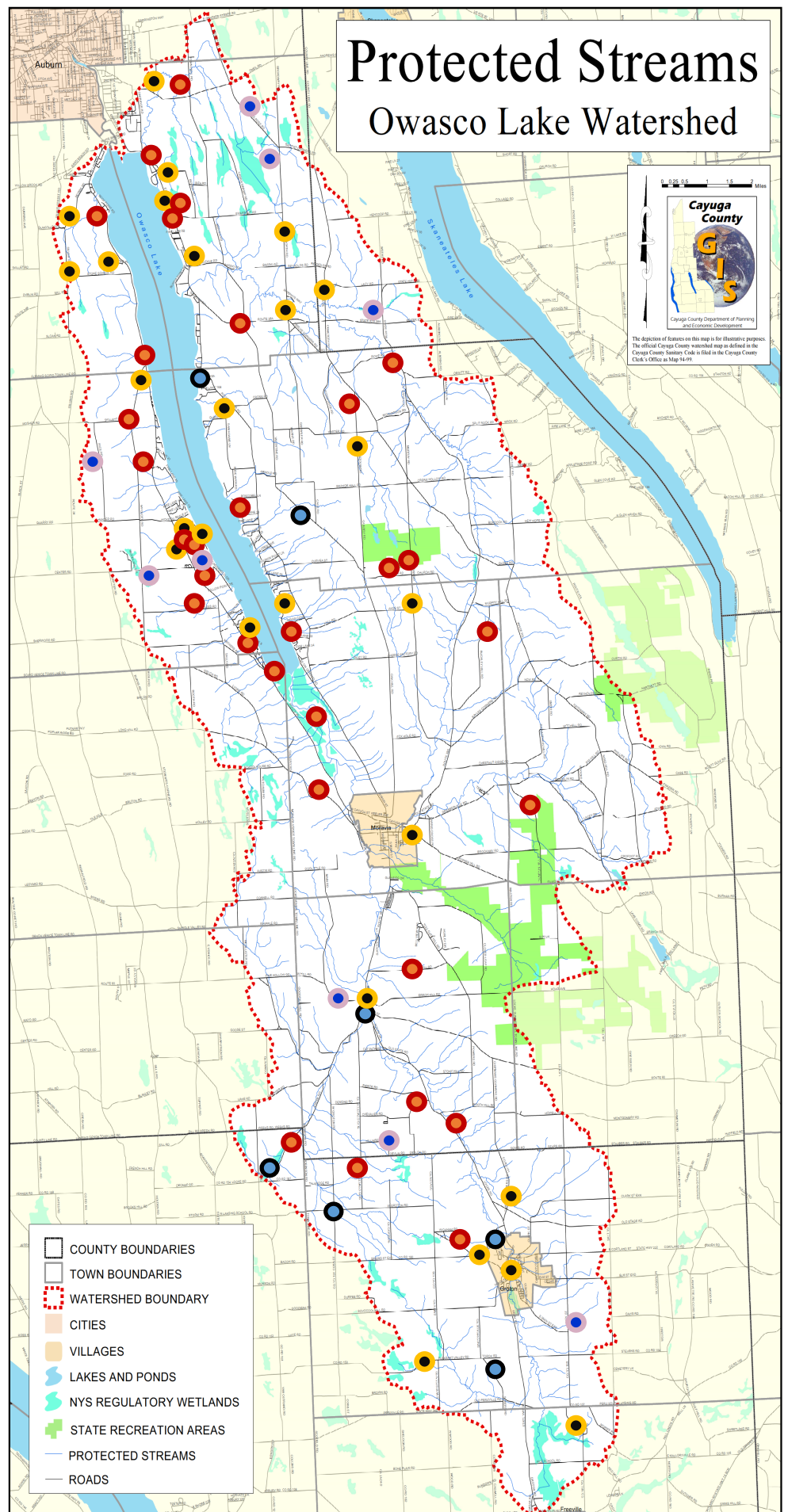
Agricultural Issues:



Miscellaneous:



Above: One of the few heavy rainfall events of 2020 struck the northern end of the watershed on July 23 and pushed stormwater into the lake, creating small sediment plumes along the shore line of Poplar Cove in the Town of Fleming.



Important Watershed References and Contact Information

Suspicious threats to Owasco Lake or tributaries within the watershed can be reported anonymously at any time to the Owasco Lake Watershed Inspection and Protection Division. All reports received will remain anonymous.

Important Reminders:

- ◇ To report a **suspicious algae bloom** on Owasco Lake, please call /text 315-427-5188, or visit: www.owascoinspection.org for reporting instructions.
- ◇ Unless permitted with special authorization, **stream work** should be avoided to the greatest extent practicable from **November 1 - June 15** to prevent disruption of seasonal trout spawning.
- ◇ **Shoreline construction** must have NYS DEC permitting if occurring lower than the Medium High Water elevation: **713.9 ft**
- ◇ NYS Lake Classification for Owasco Lake:
AA—source for drinking water
- ◇ **Stream / Wetland Disturbances:** The watershed has many protected stream segments and designated wetlands that may require special permitting.
- ◇ Before performing any ground-disturbing construction within or adjacent to streams or wetlands make certain state and federal permit applications are approved and on-site.

Owasco Lake Watershed by the Numbers

Drainage Area: 208 square miles

Counties: 3 - Cayuga, Onondaga, Tompkins

Townships within the Watershed: 15 - Dryden, Fleming, Genoa, Groton, Lansing, Locke, Moravia, Niles, Owasco, Scipio, Sempronius, Sennett, Skaneateles, Summerhill, Venice

Maximum Lake Depth: ~177 ft.

Lake Length: 11 Miles

Lake Average Width: 1.2 Miles

Lake Average Depth: 96 Feet

Finger Lakes Rank: 6th Largest

Number of Consumers Drinking Owasco Lake Waters: ~46,000

Land to Lake Ratio: 20:1
(Largest of Finger Lakes)

Average Volume of Water in Owasco Lake: ~260,000,000,000 gallons

Owasco Lake Watershed Inspection and Protection Division

Website: www.owascoinspection.org

E-mail: asnell@owascoinspection.com

Phone|Text: (315) 427-5188

The Inspection Division office is located at the Cayuga County Parks and Trails Campus at Emerson Park.

Mailing Address:
6914 East Lake Road
Auburn, NY 13021

Owasco Lake Watershed Inspection & Protection Committee Members

- ◇ Ms. Debra McCormick, Councilor, City of Auburn
- ◇ Mr. Ed Wagner, Supervisor, Town of Owasco
- ◇ Ms. Aileen McNabb-Coleman, Chair, Cayuga County Legislature
- ◇ Mr. Seth Jensen, PE, Director of Municipal Utilities, City of Auburn

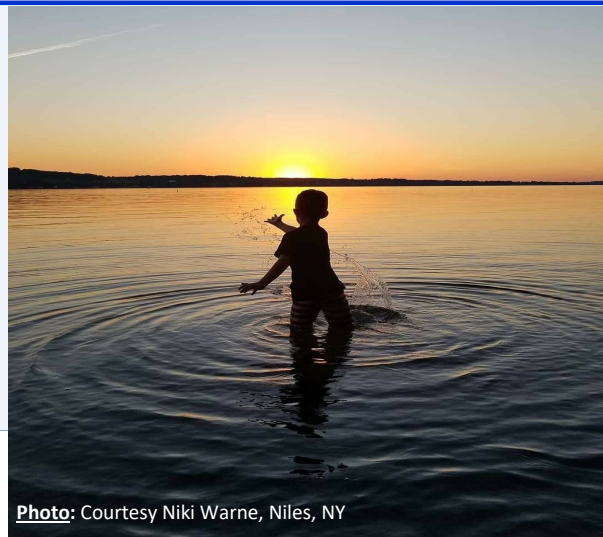


Photo: Courtesy Niki Warne, Niles, NY



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This
Publication

