

**Summary of Municipal and Non-Profit Work Addressing
Cayuga Lake Watershed Water Quality**

April 22, 2020

CAYUGA LAKE WATERSHED INTERMUNICIPAL ORGANIZATION (IO): Tee-Ann Hunter, Chair

- Purpose: Bring the watershed municipalities together to work collectively and collaboratively on monitoring, protecting, and restoring the health of the watershed.
- The work of this group affects the entire Cayuga Lake Watershed which includes land in 6 counties, 1 city, 34 towns, and 9 villages. As of now, the IO has very little funding and there is essentially no staff supporting the IO efforts. This makes advancing efforts very difficult and relies very heavily on volunteers.
- 2019/20: The IO is evaluating a new fee structure to increase finances enough to cover the costs of a Watershed Manager who will coordinate efforts, apply and administer grant funding as well as other work to benefit the waters of the Cayuga Lake watershed.
- 2019 and 2020: The IO has a grant to prioritize and rank projects for potential grant funding – Central NY Regional Planning Dept – Kathy Bertuch coordinating
- 2020: The IO has a grant to evaluate IO structure and organization
 - Recently granted. RFQ being developed now to hire a consultant
- 2020: The Membership/Nominating Committee is working to increase membership of municipalities in the watershed
- 2018: held a well-attended [Watershed Summit](#) in Seneca Falls
- 2017: Oversaw the update of the [Cayuga Lake Restoration and Protection Plan](#)—the main guiding document to improve water quality throughout the watershed.

TOMPKINS COUNTY WATER RESOURCE COUNCIL (WRC)—Cynthia Brock Chair

The purpose of the WRC shall be to advise county and local governments on matters pertaining to water resources in Tompkins County. The WRC shall identify problems, recommend strategies to address problems, establish priorities, promote coordination of activities in the protection, development, and management of the water resources in Tompkins County, and provide a public forum for the discussion and resolution of issues and problems and for completion of proposed projects and programs.

- [Tompkins County Water Quality Strategy Report 2019-2021 \(WQS\)](#)
The purpose of the WQS is to analyze the status of water resources, prioritize issues and concerns, and lay out recommendations for how to address the prioritized water quality issues and concerns throughout the County. The WQS does this by setting goals and defining objectives. The WQS also seeks to reduce conflicts and/or redundancy and to promote the sharing of information and resources among agencies, organizations, and public interest groups with significant water-related programs.
- **WRC - Harmful Algal Bloom (HAB) Committee** – Chaired by Darby Kiley.
 - 2019 – committee formed to bring together a variety of county stakeholders concerned with HABs.

- 2019 and 2020—Review the Cayuga Lake HABs Action Plan and prioritize actions to undertake in Tompkins County.
- 2020-- Gather mapping resources to identify areas to target for best management practices and grant applications, review data for watersheds with highest nutrient loads
- **WRC - Ad hoc committee to draft a job description** for a county water resources staff person for the County. Darby Kiley organizing.
- **WRC - Watershed Rules and Regulations (WRR)**— Chaired by Roxy Johnston
 - WRR empowers water purveyors to protect their source water quality. Has the potential to be effective in areas where other regulations are not, such as cumulative impacts, individual septs or agricultural sources. These can be effective at a more local scale than many current regulations.
 - 2019: Reviewed the Owasco Lake WRR.
 - 2019: Roxy and others have been in contact with water purveyors who are the only entities that can put WRR in place. This work will continue in 2020.
 - 2020 Objectives: define a process for development of Cayuga WRR.
- **WRC - Education and Outreach** —Lynn Leopold, Chair
 - 2019--Developed the “Clean Boating Guide to Cayuga Lake”
 - 2020 Objectives: Identify the most pressing issues needing outreach efforts for the watershed—potentially microplastics and pharmaceuticals.
- **WRC-Cayuga Lake Monitoring Partnership**—Roxy Johnston Chair
 - Shares monitoring information between several groups and the state
 - 2019-Participate in the update of the Total Maximum Daily Load (TMDL). Submitted comments to NYS. The TMDL is an important document needed to move ahead on a number of fronts to protect water quality, but this document has not been released by NYS for some reason.
 - 2019- publication of the paper titled "Long-term Study of Soluble Reactive Phosphorus Concentration in Fall Creek and Comparison to Northeastern Tributaries in Cayuga Lake, NY: Implications for Watershed Monitoring and Management"
 - Requested the DEC provide more guidance in using the Cayuga Lake HABs Action Plan in the absence of a TMDL since the HABs plan defers to the future TMDL for all specific information on phosphorus.
 - 2020 Goals
 - Continue to press for better support via the 2018 [Cayuga Lake HABs Action Plan](#).
 - Provide feedback on the draft TMDL if it is published.
 - Improve responsiveness to public comment periods for 303(d) list and related state documents.
 - Explore possibility of publishing a paper on Cayuga Lake chemistry.
- **WRC - Emerging Contaminants**—Jose Lozano
 - 2019—Presented results of research on emerging contaminants found in Fall Creek, Six Mile Creek, Cayuga Lake, in finished water in the City, Cornell, and Bolton Point, and effluent from the Ithaca Area Wastewater Treatment Facility focusing on microplastics and pharmaceuticals. This research seeks to measure contaminants in the water supply and the effectiveness of treatment processes in removing them.

- **WRC - Workshop for Municipalities on Water Quality**—Kristen Hychka, Chair
 - 2019--Held a municipal stream buffer workshop
 - 2020—will put on another municipal training with a field component at stream project sites. Date TBD

- **WRC - Grants/Finance**—Jon Negley, Chair
 - Reviews FLOWPA funding allocation. (FLOWPA=Finger Lakes-Lake Ontario Watershed Protection Alliance)

- **WRC - Soil Health**—Fay Benson Chair
 - 2019--Organized a public meeting on the importance of regenerative farming to protect water quality at Cornell University. Sixty-five people attended.
 - 2019--Developed draft document (directed at the farming community) emphasizing the importance of soil health related to farming in the Cayuga Lake Watershed.
 - 2020--Collaborate with Tompkins County Environmental Management Council's Climate Adaptation Committee on developing a soil health document for urban dwellers.
 - 2020--Provide designs for "Rain Gardens" to homeowners.

- **WRC - Water Withdrawals**—Mara Alper - Chair
 - 2019—analyzed data on water withdrawal policies and regulations. Request the WRC to be notified by the DEC of water withdrawals.
 - 2020—will continue to gather info on water withdrawals by ag and potential for industrial water withdrawals.

- **WRC - Executive Committee**—Cynthia Brock Chair—meets as needed.

OTHER TOMPKINS COUNTY EFFORTS

- **Tompkins County Planning and Sustainability** – Items added to their Comprehensive Plan in 2019:
 - Establish a detailed countywide Harmful Algal Blooms (HABs) strategy in cooperation with the Soil and Water Conservation District and the County Division of Environmental Health.
 - Evaluate existing watershed rules and regulations within the region with a focus on establishing rules for the Cayuga Lake watershed.
 - Provide resources to support and encourage local officials to establish mechanisms and programs for protecting stream corridors

- **Tompkins County Health Dept**
 - Until the coronavirus hit, Liz Cameron was reaching out to other health officials in the watershed Counties and at the state level. She is helping to investigate rules for septic system testing and watershed rules and regulations such as those drafted recently by the Owasco Lake Watershed.

- **Tompkins County Soil and Water Conservation District Offices**
 - 2020 Work Plan includes:

- Agriculture Environmental Management (AEM) – working with farmers to voluntarily implement practices that would be beneficial to the environment such as cover cropping, streambank stabilization, livestock exclusions from streams, erosion control techniques, and agricultural non-point source pollution.
 - CAFO Ag Waste Storage Grants
 - Climate Resilient Farming Program
 - TMDL reporting for the Chesapeake Bay
 - Streambank/pond/drainage assistance to municipalities and landowners regarding water quality issues.
 - Stormwater Pollution Prevention - Coordinates the TC Stormwater Coalition of municipalities that need to comply with MS4 regulations.
 - Aquatic Invasive Species Control – specifically for hydrilla in the Cayuga Inlet.
 - Cayuga Inlet sediment assessment
 - Water Quality Improvement Program (WQIP) – Conduct mapping activities, hydroseeding of ditches, and other activities.
 - Administering FLOWPA funds (Finger Lakes-Lake Ontario Watershed Protection Alliance).
- **Cornell Cooperative Extension of Tompkins County**
 - Works on a project by project basis on topics either directly or indirectly affecting water quality e.g. CCE spearheaded a project to map all culverts in the county.

COORDINATING EFFORTS IN OTHER WATERSHEDS IN THE FINGER LAKES

- **Canandaigua Lake** has had a Watershed Manager since 1999 and also a Watershed Inspector. The Watershed Manager currently has an assistant. They have a septic system testing program in place.
- **Owasco Lake** completed a draft of Watershed Rules and Regulations. These have been sent to the NYS Department of Health for review. Steve Lynch (Head of Planning) and Eilene O’Connor (Health Department) have participated in many of our IO WRR meetings and offered to provide support. Eilene has also shared info on Cayuga Co.’s septic program. Cayuga County has a septic system testing program in place.
- **Seneca Lake** watershed has a Watershed Manager partly funded by NYS. This position is relatively new. The new manager has attended an IO meeting and is ready to collaborate.

NON-PROFITS WORKING ON BEHALF OF THE CAYUGA LAKE WATERSHED.

- **Cayuga Lake Watershed Network** – headed by Hilary Lambert. This group does much monitoring, education and outreach. They were heavily involved in the CL Restoration and Protection Plan. The CSWN puts out a regular newsletter, coordinates the Hydrilla Hunters and HABs Harriers. The Network coordinates the training and data collection with CSI and Discover Cayuga.

- **Community Science Institute** – Director Steve Penningroth –Long-term monitoring of water quality aspects of tributaries to Cayuga Lake and Stewart Park, education and outreach. The Stewart Park data was used to remove Cayuga Lake from the impaired water body list for pathogens. Processes HABs samples for HABs harriers and works with NYS as well. Analyzes the data and produces a report that is valuable to local residents and State resource managers.
- **Discover Cayuga Lake** - MV Teal does lake educational tours and helps coordinate training and monitoring events for volunteers.
- **CLEAN – Cayuga Lake Environmental Action Now** – is monitoring activities by the Cargill salt mine and the potential devastating impacts of breaching the separation between the lake and the mine. CLEAN has taken legal action against the state.

NEW YORK STATE EFFORTS

- **DEC [Finger Lakes Water Hub](#)** – Launched in 2016 primarily as a response to widespread occurrence of HABs throughout the Finger Lakes.
- Developed the [HABs Action Plans](#)
- Monitors the lake and oversees the Citizen Statewide Lake Assessment Program ([CSLAP](#))

GAPS

There are numerous gaps preventing more progress on water quality improvement in the watershed. A dedicated staff person would:

- Network between groups, both within Tompkins County and throughout the watershed, to make sure work is not being duplicated and to make sure knowledge from each different group is shared with the others (the right hand and left hand working together).
- Work with existing action plans, such as the NYS DEC’s HAB Action Plan for Cayuga Lake and the 2017 Cayuga Lake Watershed Restoration and Protections Plan, to complete some of the goals in a more immediate future than can be done without dedicated staff.
- Write and administer grants, again to accelerate the pace of work on recommended action items to reduce the instances of HABs.
- Identify and organize existing data, plans, as well as identify gaps.
- Assist municipalities and agencies to take recommended actions to reduce the occurrence of HABs such as instituting local laws, changing ditch management practices, etc.

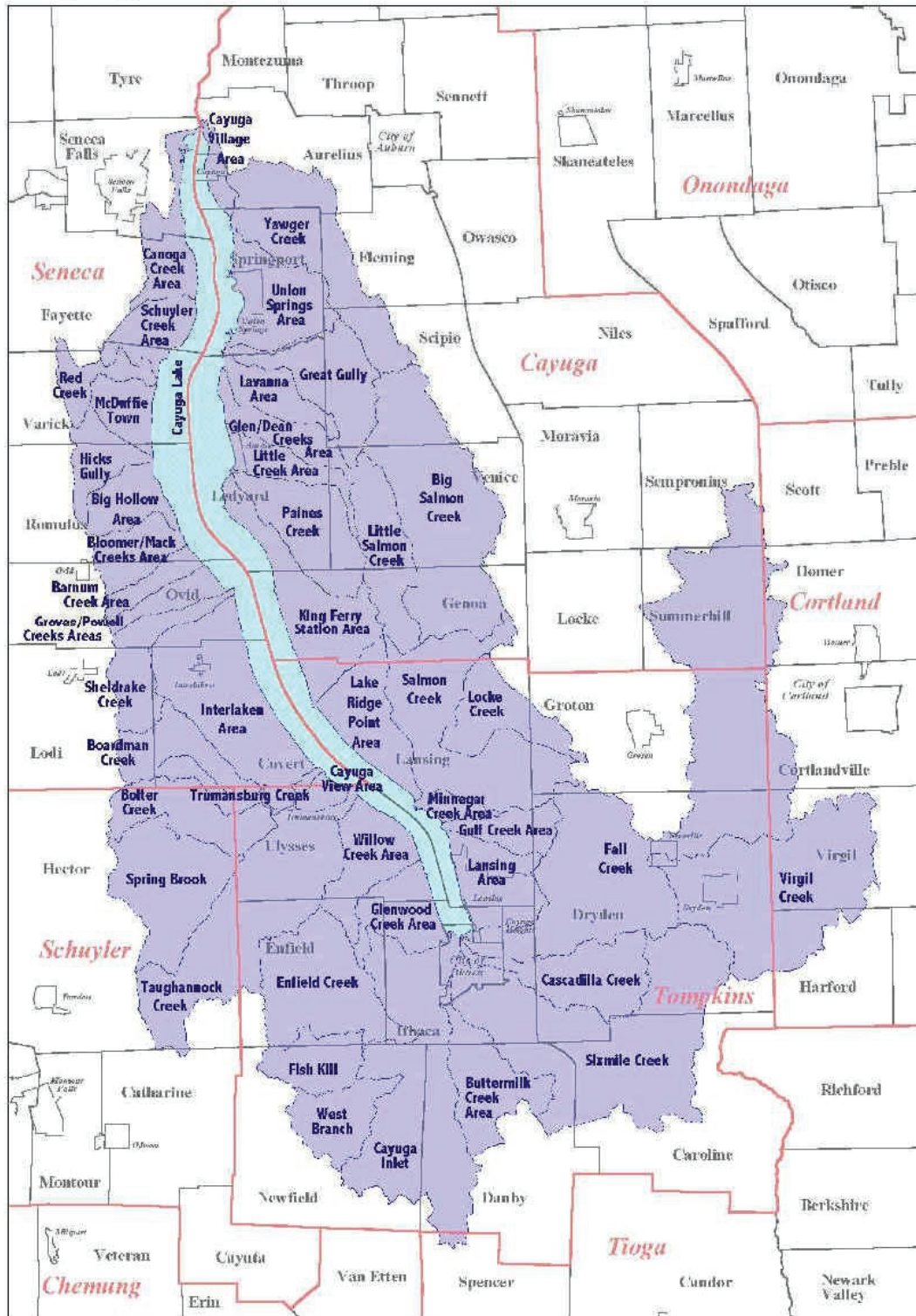
A list of more specific gaps can be developed for TCCOG if requested.

WATER QUALITY PLANS AND STRATEGIES

- [Cayuga Lake Restoration and Protection Plan](#) (2017)
- [Cayuga Lake Restoration and Protection Plan](#) (2001)
- [Cayuga Lake Watershed Preliminary Watershed Characterization](#) (2000)
- [Cayuga Lake Harmful Algal Bloom Action Plan](#) (2018)

- [Tompkins County Water Quality Strategy](#) (2019-2021)
- Tompkins County Wetlands Map (2015)
- [Tompkins County Wetlands Map](#) background

Cayuga Lake Watershed and Subwatersheds



Cayuga Lake Watershed - Major Subwatersheds

