DRAFT of comments on the Cayuga Lake TMDL for the Town of Ulysses

submit to: waterlog@dec.ny.gov

NYS DEC - Division of Water,

Bureau of Water Resource Management

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To the NYS DEC Division of Water,

We welcome the draft Total Maximum Daily Load (TMDL) for phosphorus for Cayuga Lake as we see this as a powerful and important guiding document in our joint effort with the State to take actions to protect the water quality of the lake. We appreciate the hours of work that went into drafting the TMDL and look forward to future drafts as we move toward a final document that can be the bedrock of water quality work at all levels of government. Thank you for your work.

While the TMDL for phosphorus in Cayuga Lake is comprehensive in many ways, there are some major questions it leaves unanswered such as:

* Who will take the lead role in implementing the TMDL?
* How are existing funding sources being adjusted to incentivize and encourage more successful grant applications that address the TMDL?
* Will there be any other funding, such as base funding, to help offset the staff that will need to be hired to implement the TMDL? Otherwise funding to hire the required staff will need to come from property taxes which are already the highest in the country.
* If 15% of the phosphorus reduction is to come from forested land, who has authority over these lands, what are best management practices (BMPs), and how can they be forced to implement BMPs in order to achieve this goal? Please be more specific about the forestry section of this document including the basis for these lands to contribute so much phosphorus to the lake system.
* While the TMDL addresses phosphorus loads in Cayuga Lake, there are other threats as well. Can sedimentation, invasive species, and the expected affects of climate change be added or would this require a Nine Element Plan in order for Cayuga Lake to be eligible for funds to address issues other than P?
* We understand that a TMDL and the associated modeling are complicated and time-consuming to develop, but much of the data used to develop the TMDL is quite old. We do not want to delay the implementation of the TMDL longer, but do feel more up to date data would be appropriate to use where available if rerunning the models will not take too long.
* Since 82% of the phosphorus reduction requested by the TMDL comes from agricultural lands, we request more information on the following:
	+ Please be more clear on how manure from CAFOs is being accounted for in the TMDL. It is unclear whether manure from CAFOs is or is not included as part of the phosphorus reduction from agriculture.
	+ Please include a short explanation of the difference between CAFOs operating under the Clean Water Act that can discharge into water bodies and CAFOS permitted under the State Environmental Conservation Law which are not permitted to discharge into waterways. The two kinds can be confusing to many trying to understand.
	+ Since best management practices on farms cannot be required through the TMDL, how will the large reduction in agricultural runoff be implemented when voluntary? More questions about ag contribution to phosphorus loading is below.
* One of the most difficult aspects of taking action on measures that would improve water quality is prioritizing work. While the TMDL for Cayuga Lake prioritizes some actions, the document (and the lake) would benefit from more granular prioritization, for example which watersheds are of most concern.
* MS4 municipalities in the model are considered as not contributing phosphorus, but what if these municipalities grow? Is the DEC promoting a whole watershed MS4 approach?
* Are the existing wastewater treatment facilities (other than Interlaken and Freeville) capped at current P loads? What if the municipality grows and more wastewater is produced?

The Town of Ulysses also suggests the following specific comments on the Cayuga Lake TMDL:

Section 1.2.1 Scope of Water body/Segment Impairment:

* The Seneca River sub-watershed should be included as part of the Cayuga Lake Watershed
* List all the municipalities in the watershed, noting which ones border the lake.

Section 1.2.2 Scope of Unimpaired Segments:

* List all contributing sources to algal blooms, not just phosphorus to be consistent with the DEC Harmful Algal Bloom Action Plan for Cayuga Lake

Section 2.1: Watershed Characterization

* Please use updated landcover information in model.

Sections 2.1.1-2.1.3 Segment Designations

* The town of Coonley Corners and Town of McKinneys no longer exist. Use more updated land demarcations or GPS coordinates.

Section 2.3 Water Quality

* Include the Community Science Institute in the table 9 titled: *Water Quality Investigations in Cayuga Lake from 1970s-Present*

## Section 3 Numeric Water Quality Target

* Clearly state the impairment that triggered the TMDL development.

## Section 4 Assessment of Sources

* Include a summary table indicating how much total P comes from point and non-point sources.

## Section 4.1.1 Agricultural Sources

* The TMDL is unclear how runoff from farm fields is accounted for and how this interacts with the CAFO permitting process. Clarify if the statement under each table “Runoff from farm fields is accounted for in the nonpoint source agricultural load” includes manure from CAFOs since the TMDL says discharge from CAFOs is assumed to be zero. We request that manure and fertilizer runoff be accounted for on all farms as part of the equation for reducing P.
* Clarify how CAFO land (owned and leased or otherwise operated), not the barnyard area, is handled in the analysis.
* Where phosphorus reductions from agriculture are modeled, please Indicate how much comes from CAFOs and non-CAFO farms and from barn lot areas versus planted and cultivated areas.
* Include the following as part of the TMDL compliance actions:
	+ increase DEC oversight of CAFO compliance with their CNMPs,
	+ increase DEC oversight with regards to rate of manure application, timing of manure application, and time between application and working land to incorporate manure, and
	+ increase DEC enforcement beyond minimal response to complaints.
* It appears that wineries (grape cultivation) and breweries (hops cultivation) and crops other than grain, hay and pasture are ignored in the TMDL. Please comment on if phosphorus loading from these crops is an issue to consider.

## Section 6: TMDL Load Allocations

## Section 6.1 Impaired Segment Overview of Load and Waste Load Allocations and Load Reductions:

* A 15% reduction in load allocation of phosphorus is from forested lands. Please indicate where the P is coming from on forested lands and more about how to reduce P inputs from forested lands into the lake, especially those under private ownership.

## Section 7 Implementation Section

* Appendix G is frequently referred to for more detailed information regarding implementation of the TMDL. In reality, Appendix G is a list of existing programs, competitive funding opportunities, etc. To date, these programs and funding streams have not been adequate to meet the watershed’s needs. Since many of the recommended actions are voluntary, will there be changes to current funding streams to incentivize compliance?
* Thank you for clearly recognizing the Cayuga Lake Restoration and Protection Plan (RPP) as a Watershed Plan on par with the Action Plan.
* page 64 references a number of tables (24-30) that would be helpful to include to assist with remediation having to do with recommended best management practices, but the tables do not exist in the document or are mis-numbered. Please include them or correct the numbering.
* Thank you for being specific about BMPs and their priority beginning on page 66. Will the DEC be tracking the implementation of these recommended BMPs? Down the road, these may not be voluntary. Will the DEC take an active role in encouraging BMPs?
* It would be helpful to know the prioritized locations where BMPs should be implemented first to have the most impact.
* Since the reduction of P is largest from agricultural, but BMPs are voluntary on ag land, how will these be implemented if ag landowners opt not to adopt BMPs?

## 7.7. Compliance

* Who will monitor progress on the TMDL and how will monitoring be paid for?
* How will BMPs be tracked? who will do this? How will they be compiled and where?
* Who will enforce compliance?
* Please include the Community Science Institute when possible for necessary monitoring since they are familiar with monitoring on many other levels and are out on the lake already in many locations. Provide an avenue to fund monitoring of the lake.

## Section 7.8.2 Forestry Conservation Practices:

* Should we assume that the only measures needed to reduce loading by 15% are to employ BMPs during timber harvesting? Who oversees forestry management practices? SWCD offices have no authority over forested lands.

## Section 8 Public Participation

* While the letter of the law has been met on public participation, a wider engagement on such an important document is recommended if only to answer questions raised when trying to figure out how to implement the document. We request the TMDL be a “living document” that can change as we jointly try to implement.

# Appendix G

* While the intent of funding programs is good, often the requirements to apply are so burdensome (requiring other plans, matches, money up front) that organizations cannot apply because of limited staff time and funding to do so. For example, the Local Waterfront Revitalization Program requires a LWRP plan. Most of the municipalities along the lake are rural and do not have the wherewithal to create such a plan.
* Matches for personnel services are too low in many of the grant programs and reimbursements are difficult for municipalities with very small budgets that cannot afford to wait to be reimbursed.

General questions and comments:

We request more explanation on the difference between total phosphorus and total reactive phosphorus and a more clear understanding of which to target and why.

Who has the overall responsibility for implementing the plan?

Please better explain the connection between Chl-A levels and TP concentrations – how do they interact. Why was Chl-A chosen to track phosphorus and how is it related to phosphorus? How will Chl-A levels be monitored

Please use CSI data or other more current data to cross check with older DEC data or DEC data from fewer sampling points to make sure models are accurate.