St. Lawrence County Environmental Management Council
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MEETING MINUTES

Wednesday July 20, 2022 at 6:00 PM
2nd-Floor Conference Room, Public Safety Complex and Zoom
49½ Court Street, Canton, NY

1. Call to Order
Chair Bennett called the meeting to order at 6:10 pm.

2. Land Acknowledgement
Tenbusch read a Land Acknowledgement, provided by Tony David, SRMT Environment Division:

"As we meet today, let us first give thanks and acknowledge that the land upon which we are gathered is part of traditional indigenous territories, including the Rotinonshionni (Low-dee-no-SHOO-nee), the People of the Longhouse, also known as the Iroquois Confederacy; and the Kanienkehaka (Ga-nyun-geh-HA-gah), the People of the Land of Flint, also known as the Mohawk Nation."

3. Roll Call, Determination of Quorum

Members present: Catherine Bennett, Chair; Herb Bullock; Sue Rau (Vice Chair); Lance Rudiger; Sue Rau; Tiernan Smith; Nicole Terminelli; Rod Tozzi; Brian Washburn.
A QUORUM WAS OBTAINED.

Members absent: Dustin Bowman, Secretary; Joe Brant; Lucas Hanss; Richard Marshall; William Stephens III.
There are three vacancies.

Guests: Sean Cunningham (prospective EMC member) and Lauren Eggleston (Save The River). Cunningham was introduced and provided a brief bio.

4. Acceptance of Order of Business, Items for New Business, Items for Unfinished Business
- **a.** Rau added a Rights of Nature event to New Business.

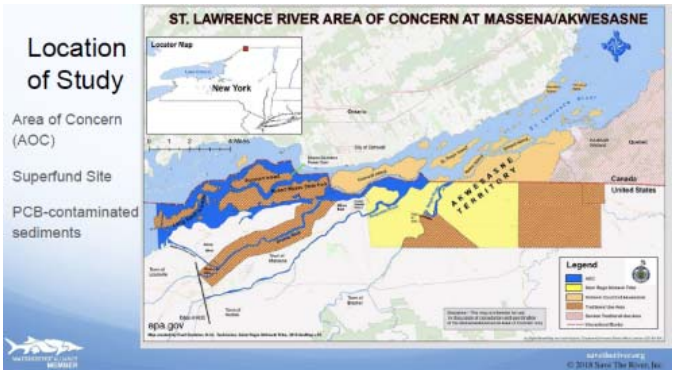
5. Approval of the Minutes of the March, April, May, June 2022 EMC Meetings
- **a.** Minutes of these meetings were approved by consensus.

6. Comments from the Public / Speaker: The speaker was Lauren Eggleston, Assistant Director of Save The River. Lauren discussed the successful re-introduction of native freshwater mussels into the Grasse River.

Eggleston introduced this project on fresh water mussels as a collaboration with Save The River (STR), NYS Museum's Malacology Program, and the Saint Regis Mohawk Tribe, on the lower Grasse River. The project is funded by a NYSDEC Invasive Species Grant. There are two types of fresh water mussels that are in the St. Lawrence River (SLR) and its tributaries:

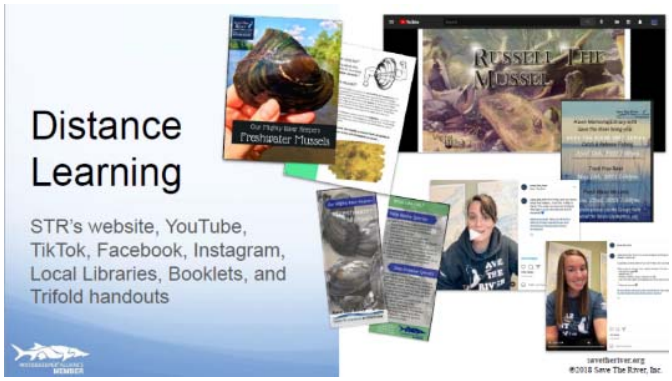
Unionids (native) and Dreissenids (invasive: zebra and quagga, commonly introduced from a ship's ballast). Unionid populations have been historically abundant in the SLR and its tribs, however, they continue to decline since the introduction of dreissenids in the 1990s.

An interesting fact is how unionids spread their young in the river ecosystem: a female uses a hook-like feature to attract a fish to bite, then juveniles are released in a fish's mouth and latch on to the gills for about two weeks, and then drop off wherever the fish migrates. Dreissenids use a different method and simply spread their young in the water column.



The location of the study was primarily the lower Grasse River, with neighboring rivers (Raquette and St. Regis) and brooks (Brandy and Sucker) serving as controls. This particular location is a superfund site with PCB-contaminated sediments. The research team is working on two questions (over a three year period): is the lower Grasse River a refuge for Unionids from dreissenids and "how does remedy substrate alterations affect mussels?" The lower Grasse River can act as a refuge because it allows Unionids to bury themselves to "hide" from dreissenids. Ultimately, the research goal is to assist with future management decisions.

A significant portion of STR's component to the project is public education and outreach in Jefferson and St. Lawrence County. The pandemic presented challenges, however, they took measures to share information, e.g., a distance learning program (online digital resources), mussels booklet, community partnerships, internship program and an on the water program. During the course of this research project STR will continue with public education and outreach.



Discussion

- Washburn asked how long the study area was 'up river' from the SLR. Eggleston said 7 miles.
- Bennett asked about interest in online resources due to the pandemic. Eggleston replied that there was varied interest and a group of teachers from a school in Syracuse took a special interest in the project.
- Tenbusch talked about NYPA draining Norwood Pond in the past and killing an estimated 75 million mussels. Eggleston replied that juveniles must have been included in this estimate.
- Bullock talked about the dam in Madrid as a barrier to fish passage. Eggleston said that native mussels could potentially pass while attached to fish.
- Rau asked about introducing new mussels as a part of this project. Eggleston said that there was no introduction and the research team was surprised at the amount of native fresh water mussels in the project area rivers.
- Rudiger shared a NYSDEC article on the Grasse River cleanup and mussel project.
- Eggleston shared another organization they work with on the Canadian side: Swim Drink Fish.

The Council thanked Eggleston for her presentation. There was a 5 minute break.

7. Report by the Representative of the Board of Legislators (Nicole Terminelli)

a. Terminelli recognized Tenbusch for his presentation to the Board of Legislators on the EMC's nuclear power position.

8. Report of the Committees

a. Executive Committee. None.

b. Conservation of Resources Committee. See attached report.

i. Bennett gave the report.

ii. Bennett inquired about Blandings turtle research. Casserly will share a previous EMC recording from SUNY Potsdam Professor Glenn Johnson about Blandings turtles.

c. Environment & Economy Committee. See attached report.

i. Smith gave the report.

ii. Casserly will share with Smith the June meeting recording that includes Scott Schlueter's (USFWS) presentation.

iii. Bullock asked for clarification on fish ladder invasive species' impact(s) to Black Lake from the June Minutes.

d. Invasive Species Committee. See attached report.

i. Rau gave the report.

e. Watershed Management Committee. See attached report.

i. Washburn gave the report.

9. Report of the Staff

a. Tenbusch talked about CDBG and EFC (septic grant) activities. Casserly talked about a land use regulation revision project with the Town of Rossie.

10. Unfinished Business

- **a.** Tenbusch talked about submitting and presenting the EMC "Position on Nuclear Energy" to the County Administrator and Board of Legislators.
  - **i.** He shared the EMC voting roll for one particular paragraph from the "Position..":
    1. For: Bullock, Brant, Rau, Stephens, Bennett, Bowman, Marshal, Hanss, and Terminelli (9)
    2. Against: Rudiger, Tozzi, Smith, and Washburn (4)
  - **ii.** The EMC "Position on Nuclear Energy" is available to the public via this link.
  - **iii.** There was further discussion from the Council on the presentation experience. Rau was impressed with quality of questions from the Board. Bennett and Rau felt it was ultimately good for the Board to discuss the power grid in the County.
  - **iv.** Tenbusch asked the Council if they would like to recommend that the BOL adopt the EMC's "Position"? The consensus from the Council was for Terminelli to gauge the interest of the Board of Legislators to consider it.

11. New Business

- **a.** Bennett talked about a recent Rights of Nature (RoN) event, she and Hanss attended. The RoN supporters in the area are drafting a local law template for municipalities to consider adopting. Bennett plans to attend future meetings and will update the EMC.

12. Announcements

- **a.** EMC Picnic, August 17th at the Waddington Town Beach.

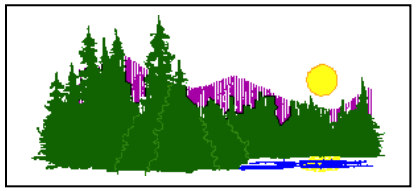
13. Message to Board of Legislators.

14. Adjournment. The meeting adjourned at 8:27 pm by consensus.

Respectfully submitted,

Dustin Bowman, Secretary

Minutes prepared by Dakota Casserly



SLC EMC Action Item Agenda for Conservation of Resources Committee

Members: C. Bennett; D Bowman; L Hanss; R. Marshall; S. Rau
STAFF: Dakota Casserly **Guest:**
Meeting Date: Wednesday July 13, 2022 at **5:00 PM** via Zoom

Time	Item	Outcome	Responsibility	Next Steps / Notes
5:00pm	Meeting starts	Join Zoom Meeting: https://us02web.zoom.us/j/81820123194?pwd=NlNJSjRFdThaSU1OTFBnSThJcUpsZz09 Meeting ID: 818 2012 3194 | Passcode: 868437 One tap mobile: +19292056099, Meeting ID: 818 2012 3194 | Passcode: 868437		
5:05	Review Report of last committee meeting (June 2022)		All	
5: 10	Discuss Priority Projects	• Organic Pollinator Garden Project - Update ○ Thank yous • Nuclear power discussion and letter to BOL • Oswegatchie River canoe launch (E+E co-project) New/Ongoing project ideas	All	
5:40	Discuss speakers for EMC meetings (1-3 speakers per year)	Pollinator garden (Planning for 2023)	All	
5:45	Discuss ideas for EMC Public Service Announcements	This Committee will develop 1-3 PSAs per year on CR topics • Pollinator garden project (update)	All	
5:50	Set date/time for next mtg.	**Next Mtg: September 14, 2022**		
5:55pm	Adjourn			

Attendance: Cat Bennett (CB) and Dakota Casserly (DC)

Projects: Brief overview of wrap up

- Potential project to plant in the fall, new site in Canton (main village park, Canton Rec Director possibilities)
  - DC to email CRC to check motivation.
  - DC and CB talked further about larger pollinator projects (greater than 1 acre)
- Nuclear power EMC statement, DC shared info about John Tenbusch's upcoming presentation.
- Oswegatchie River canoe launch project in the Town of Rossie. DC will coordinate with interested EMC members to move the project along.

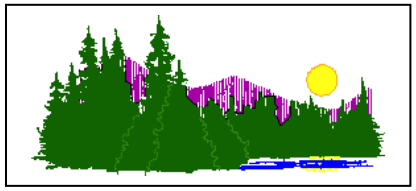
Speaker: CB will share some contacts, dbl check Dustin Bowman (DB) contacts for pollinator garden.

PSA: This is planned, DC with check with DB.

Rights of Nature (RoN) Event (attended by CB and Lucas Hanss (LH))

- ~20 people
- Participants committed to RoN projects
- Thomas Linzey and associate were in attendance
- RoN in the North Country
    - Consensus was to educate the public and draft a local law template for municipalities to adopt/implement.
    - Akwesasne presence was strong and they continue to be involved.
    - Left with the feeling that something is achievable.
    - Another meeting is planned in the near future and CB and LH will update the full EMC)

Adjourn 5:30 pm



SLC EMC: Agenda for Environment + Economy Committee

Members: Herb Bullock; Rick Marshall; Tiernan Smith (Chair); Rod Tozzi
Staff: D. Casserly **Guest(s)**:
Meeting Date: Wednesday, July 13, 2022 **at 6:00 PM** via Zoom

Time	Item	Outcome	Responsibility	Next Steps
6:00 PM	Meeting starts	Join Zoom Meeting: https://us02web.zoom.us/j/81820123194?pwd=NlNJSjRFdThaSU1OTFBnSThJcUpsZz09 Meeting ID: 818 2012 3194 | Passcode: 868437 One tap mobile: +19292056099, Meeting ID: 818 2012 3194 | Passcode: 868437		
6:05	Review Report of Last Committee Meeting (June 2022)		All	
6:10	Priority Projects for 2022			
	Nuclear Energy Letter	Update		
	DEC Deer Management Program	Preparation/Update (All)		
	Ogdensburg Dam FERC (P-9821) Relicensing	5/31/22 - Plan to track/participate in the project.		
	Recreation	SLC Snowmobile economic impact, speaker in the fall		
	Oswegatchie River Canoe Launch	Update		
6:45	Discuss speakers for EMC meetings	DEC Deer Management Program • Steven Heerkens, NYS DEC Wildlife Biologist (10/16) Scott Schlueter, USFWS, June 15 (recap)	All	
6:50	Develop Pub. Service Announcements	This Committee will develop 1-3 PSAs per year on E+E topics	All	
6:55	Set date/time for next meeting	**Next Mtg: September 14, 2022**		
7:00	Adjourn			

Attendance: Herb Bullock (HB), Dakota Casserly (DC), Rod Tozzi (RT), Tiernan Smith (TS)

Nuclear energy statement presentation, 7/18, 5:30pm, share link with interested EMC members if live streamed.

- TS feels that the voting list should be shared.

HB asked about the status of a solar in Madrid that the County Planning Board (CPB) denied. DC responded that the Town's planning board overruled the CPB and approved the project.

DEC Deer Management program, no update.

- HB and deer issues in the Village of Canton.
    - What options exist for management on the local campuses and municipalities? DC will investigate.
    - TS shared concerns about new gun regulations from the State.

Ogdensburg dam

- Jim Reagan (Possible speaker in the future)
- Scott Sch. (USFWS) opinion on Atlantic salmon
- EMC will continue to monitor the relicensing process.

Tunison Lab

- TS shared that scientist are still interested in talking and will coordinate a future EMC discussion.

Scott Schlueter speaker

- HB shared an overview of his presentation, American Eel study and FEMREF program.
- Invasive species are a concern and selective fish ladders are a possibility.
- DC to share recording with TS

Recreation: DC shared an update

- HB and multi-use trail permit cost concerns.

Oswegatchie River Canoe Launch

- DC will update and coordinate interested EMC members.

St. Lawrence County Environmental Management Council
Invasive Species Committee Meeting
Tuesday, July 12, 2022

Mtg started at 5:05 pm. Present was Sue Rau, Chair. John Tenbusch attended as staff.

Report on Water Chestnut-pulling event in Heuvelton, June 25th

- John reported that Brian Washburn had attended for the EMC. Washburn had reported that he didn't see individual kayaks pulling plants; what he saw were several mechanical harvesters. Per Brian, several dump-truck loads of plant material were hauled away.
- ***See WMC meeting report, 7/12/22 for additional details.***

Review Activities re Milfoil at Black Lake

- John reported that during June he had coordinated two meetings regarding Black Lake:
  - On June 15th, a group of scientists/researchers met to discuss the draft Lake Management Plan that was written by Luke Gervase of GEI Consultants.
  - On June 16th, a small group (Michelle Gallagher and Jay Carney of BLA; Brad Baldwin of SLU' John Tenbusch) met to discuss the draft Management Plan, and to brainstorm future activities.
  - ***See WMC meeting report, 7/12/22 for additional details.***

Discussion on Comprehensive Management Plan for Invasive Species in SLC

- The Committee had put together a list of invasive species in the County by combining lists compiled by SLELO PRISM and from APIPP.
  - One or more surveys might be prepared and distributed, among plant specialists, among farmers, and among the general public, about what they consider to be the most problematic invasive species.

Other Items

- John reported that he will distribute a Public Service Announcement concerning "Mowing: A Reasonable Alternative to Manage Wild Parsnip Along Roadsides". See attached.

The meeting ended at 5:30 PM.

Meeting report prepared by John Tenbusch

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Mowing: A Reasonable Alternative to Manage Wild Parsnip Along Roadsides

It is that time of year again: Town and County Highway Departments are looking at their next major task: mowing along roadsides. The **Environmental Management Council** would like to take this opportunity to let you know that you can control the spread of Wild Parsnip along your roadsides with relatively minor changes to mowing schedules.

Wild parsnip (*Pastinaca sativa*) is an invasive plant from Europe and Asia. It can be found growing in a broad range of habitats, especially disturbed areas along roadsides, and near playgrounds.

Wild parsnip is especially noxious because its sap can combine with sunlight to cause severe burns on exposed skin that has come into contact (pedestrians; highway workers; etc.). One recent report noted that wild parsnip was growing past the fence at a local ballfield. If anybody hit a home run, the kids who chased the ball were all at risk of severe burns. (See https://dec.ny.gov/animals/105364.html)

Typical methods of control of wild parsnip have involved use of herbicides, and mowing. The **Environmental Management Council** proposes that, by planning roadside mowing schedules, it may be possible to control, and over time to eradicate wild parsnip without having to use herbicides (except in very limited circumstance).

We notice that wild parsnip flowers along our roadsides in late June-early July. By mid-July into August those flowers create seeds that are easily dispersed by wind or other factors.

Mowing wild parsnip before August will prevent plants from seeding out, and prevent the spread of wild parsnip.

Though plants may re-sprout and re-flower, seed production will be greatly reduced.

Highway crews should take precautions to wear long sleeved shirts and long pants when mowing, in order that they don't get hit with wild parsnip sap while mowing. Rinsing off mowing equipment is also recommended.

EMC: Everybody Must Care!

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Wild Parsnip

Do Not Touch This Plant!

Wild parsnip (*Pastinaca sativa*) is an invasive plant from Europe and Asia that has become naturalized in North America. It is well suited for colonizing disturbed areas but can also be found in open fields and lawns. Wild parsnip sap can cause painful, localized burning and blistering of the skin.

View the Wild Parsnip Fact Sheet (PDF)

Identification

Wild parsnip can grow up to 5 feet tall and has hollow, grooved stems that are hairless. The plant's leaves resemble large celery leaves. They are yellow-green, coarsely toothed and compound, with 3-5 leaflets. Small, yellow flowers are clustered together in a flat-topped array approximately 3-8 inches across. Flowering usually occurs during the second year of growth, starting in May or June and lasting for 1-2 months. Seeds are flat, brown, and slightly winged to help with wind dispersal in the fall.

Preferred Habitats

Wild parsnip can be found growing in a broad range of habitats, especially along roadsides, in fields and in pastures. It is common in the United States and Canada and is widespread in New York. DEC encourages the public to report sightings of this invasive plant to iMapInvasives (leaves DEC website).

Hazards to Human Health

Wild parsnip sap contains chemicals called furanocoumarins which can make skin more vulnerable to ultraviolet light. Brushing against or breaking the plant releases sap that, combined with sunlight, can cause a severe burn within 24 to 48 hours. This reaction, known as phytophotodermatitis, can also cause discoloration of the skin and increased sensitivity to sunlight that may last for years.

How to protect yourself from wild parsnip

- Learn to identify wild parsnip at different life stages.
- Do not touch any parts of the plant with bare skin.
- Wear gloves, long-sleeved shirts, pants, boots and eye protection if working near wild parsnip to prevent skin contact with the sap. Synthetic, water-resistant materials are recommended.

If contact with sap occurs

- Wash the affected area thoroughly with soap and water, and keep it covered for at least 48 hours to prevent a reaction.

- If a reaction occurs, keep the affected area out of sunlight to prevent further burning or discoloration, and see a physician.

Prevent Establishment and Spread

It is important to remove new infestations while they are still small and not well established. When using equipment where wild parsnip is present, make sure to clean it thoroughly before using it again in an area that is parsnip-free. Avoid areas where seed is present to prevent its accidental spread on clothing and equipment.

Control and Management

Manual removal of plants can be effective for small areas. Cutting roots 1-2 inches below the soil or pulling plants by hand should be done before they have gone to seed. If removing plants after seeds have already developed, cut off the seed heads and put them in plastic bags. Leave the bags out in the sun for one week to kill the seed heads before disposal. Mowing wild parsnip after flowers have bloomed but before seeds have developed can kill the plants. Some plants may re-sprout, making it necessary to mow the area again. General herbicides can be applied as spot treatments to new shoots.

Report an Infestation

If you believe you have found wild parsnip:

- Take a picture of the entire plant and close-ups of the leaf, flower and/or seed.
- Note the location (intersecting roads, landmarks or GPS coordinates).
- Report the infestation to iMapInvasives (leaves DEC website).

For more information, contact DEC Forest Health at 845-256-3111, ghogweed@dec.ny.gov or your local Partnership for Regional Invasive Species Management (PRISM) (leaves DEC website).

St. Lawrence County Environmental Management Council
Watershed Management Committee Meeting
Tuesday, July 12, 2022

The meeting started at 4:03 PM.

Present: Brian Washburn, Chair; William Stephens. John Tenbusch attended as staff.

Review Previous Committee Meeting Report. No comments.

Review Recent Watershed Activities.

- Indian River Lakes Conservancy Annual Water Quality Meeting, June 10th
  - John Tenbusch reported that he attended the first day of this 1½ day conference
    - Presentations included
      - Water Quality Grants / St. Lawrence River Watershed Revitalization Plan
      - Emerging HAB Technologies
      - Benefits of Natural Shorelines
      - Getting Your Watershed Group Started.
        - Tenbusch requested, and received, the slide deck from this presentation. The presenter, Mike Lovegreen, from PA., said that he would be willing to make a presentation for Black Lake stakeholders.

- Oswegatchie River Water Chestnut Removal program, June 25th
  - Brian Washburn reported that he attended this program
    - He did not have a kayak, so he did not participate in chestnut removal
      - Tenbusch reported that he had spoken to several persons who had used their own kayaks at this event to pull water chestnuts.
    - Washburn observed several mechanical cutting machines
      - He observed several dump-truck loads of plant materials being hauled away

Review Recent Activities re Black Lake.

- Discussion of Draft Black Lake Management Plan
  - Brian had prepared a series of comments on the draft Black Lake Management Plan. See attached.
  - Washburn compared the Black Lake Plan with another recently-published watershed plan for Lake Placid; he felt that the Lake Placid plan was head-and-shoulders better than the Black Lake plan.
    - Per Washburn, one of the standout items from the Lake Placid plan was the extensive public comment component. By contrast the Black Lake Plan had minimal public input.
    - At a request from Tenbusch, William Stephens agreed to review the Lake Placid watershed plan, and to draft some comments.
  - Washburn stated that the Black Lake Plan did a good job with its survey of aquatic plants in the system.

- Tenbusch reported that he had coordinated a meeting on June 15th of local scientist/researchers to discuss the draft Black Lake Plan.
  - See attached notes.
- Tenbusch had also coordinated a meeting on June 16th with Michelle Gallagher, Jay Carney (BLA), and local researcher, Brad Baldwin. They had developed a series of activities that might be carried out in the near-term. These included:
  - Raising the water level of Black Lake (by raising splashboards at Eel Weir Dam?)
  - Meeting with DEC Fisheries staff regarding the TMDL study of Black Lake
  - Upgrade of the WWT facility for the Village of Hammond
  - Installation of signage regarding invasive species at informal boat launches
    - Tenbusch gave a small supply of such signs to Jay Carney to distribute
  - Establish a boat-wash station along CR 6
  - Do additional research into the applicability of herbicides in limited areas
  - Investigate ways to increase water flow under the bridge at Edwardsville
  - **Finally, those in attendance decided to start the Black Lake Working Group as an umbrella organization to pursue watershed management/improvement activities.**

The meeting concluded at 4:55 PM. Meeting report drafted by John Tenbusch

Review of 2022 Draft Black Lake Management Plan

Brian Washburn

SLC-EMC

The following is a review of the draft Black Lake Management Plan prepared by GEI. NYSFOLA's Diet for a Small Lake, 2nd edition and NYSDEC's Primer for the Development of a Lake Management Plan were used as a reference for the evaluation as well as the 2010 Chautauqua Lake Management Plan.

Executive Summary

The executive summary is consistent with others prepared for previous documents relating to Black Lake.

Organizational Structure

The first sentence states the Black Lake provides a unique environment for counties. Black Lake is totally within the boundaries of SLC.

The following is a recommendation for the creation of the organizational structure:

> Create a stakeholder committee with representatives from St. Lawrence County, the COC, BLA, FGC, and any others deemed appropriate. Continue searching for grant funding on the local, state, and federal level using said committee with representatives from each stakeholder group. The main function of the committee is to work together and give each entity a voice to achieve the overarching goal of preserving Black Lake

The narrative basically presents the identified stakeholders likely needed to collaborate in the development and execution of the final management plan. There is no specific organizational structure proposed. The phrase "any others deemed appropriate" is problematic. What about specifying entities like NYSDEC, SLC-SWCD and others? The local governments, identified stakeholders, and shoreline residences may have control of activities on the land in the watershed to an extent, however they do not own the water. Who is the likely party to develop the organizational structure? Is there a recommendation? Absent is the mechanism for the input from the general public opinion and concerns, residents of the Black Lake watershed or beyond, in the development of the final plan. Most lake management plans include either public presentation or surveys of the residents both fulltime and seasonal as a means of obtaining general population opinions other than identified organizational stakeholders. Public input may occur as the plan is finalized. The Town of Oswegatchie/GEI contract includes $7,785 for public input to the final plan. How is this allocation going to be specifically spent? There is an error in the ownership of the public boat launch. The public boat launch not NYSDEC's rather it is currently the property if the Thousand Islands Park Commission.

There have been stated two diametrically opposing views with respect to organizational structure. Openly at Black Lake Summits when the possible need for a unified organizational structure was put forth several participants expressed negative opinions of an overall organizational structure preferring stakeholders remain independent and cooperate with each other with respect to common goals. Other participants have expressed the need for an overreaching organizational structure with its

potential to improve the overall condition of the lake and to enhance the ability to secure external funding to achieve the plan's outcomes. A possible good example of an overreaching organizational structure might be the Indian River Lakes Conservancy.

Historical Record

The historical record is for the most part accurate. What is missing is the recommended actions of the various record entries. Why were the recommendations of the 2008 EWM plan not executed? Brad Baldwin's report was to the USACE and used by the USACE in their preparation of the Reconnaissance Report. The local sponsor for the next step in applying for federal assistance was the SLC-SWCD which agreed to provide the local funding requirement. The SLC-SWCD failed for whatever reason to provide the funding rendering Black Lake ineligible for federal funding through USACE managed programs. Was it the inability to raise the required matching funds or was it an issue with the proposed USACE actions?

Watershed Description

An accurate physical description of the watershed is provided with the exception of demographic information. I totally agree with the need to establish a lake level monitoring program and an updated bathymetric mapping of the lake presented in the recommended goals. This is the first document I have seen that clearly delineates the lake into two distinct ecological zones; the southern portion being lacustrine and the northern portion riverine. One has to wonder if the lake was divided as such before the removal of the bridge and the replacement causeway installed. Individuals at the Black Lake Summits expressed considerable angst about the impact of the causeway on the condition of and use of the lake. One of the locally identified issues dealt with the request of Black Lake Association for financial assistance from SLC for mechanical harvesting in 2021. The funding request was granted. Considerable discussion has taken place on the Board of Legislatures level and the Environmental Management Council level as to how the County might prioritize funding requests for lake management activities considering the multitude of lakes/reservoirs in the county. The watershed description might be enhanced by the inclusion of the following to assist the Board of Legislatures in prioritizing and funding lake management activities:

i. Population statistics
ii. Number of shoreline property owners by township
iii. Number of shoreline permanent property owners by township
iv. Percentage of residential property owners that are seasonal
v. Number and identity type of commercial enterprises primarily along the shoreline.
vi. Percentage of shoreline owned by NYSDEC
vii. Total shoreline property assessments by townships
viii. Economic impact of the watershed in greater detail than is presented in the section on fisheries.

Water Quality

The narrative is well done and scientifically relevant. One issue which was raised at the SLC-EMC's Black Lake Summit #1 was the fact that the NEAR analysis would only cover a portion of the year

or in other words a mere snapshot of the water quality. GEI has effectively acknowledged this in the narrative and relied heavily on the historical record of CSLAP analyses conducted by the Black Lake Association. The NEAR data is consistent with the historical CSLAP data for the most part. A positive feature is the explanation of the consequences of abiotic parameters on the health of the lake. A major conclusion was that the lake has ample phosphorus exceeding established criteria for being classified a eutrophic water body. The last NYSDEC WI/PWI concluded the lake is impaired and cited a likely causative factor being agricultural runoff. Since agricultural activity is a significant component of SWCD's responsibilities might it be beneficial to include a historical record of the SLC-SWCD's efforts in reducing the agricultural component of the phosphorus load? There have been different opinions expressed in the literature or in other planning documents/reports with respect to nutrient loading of the lake ranging from the aforementioned agricultural runoff, inadequate public/private waste water treatment systems, external loading from the Indian River watershed, and internal loading. Might it be important to mention the planned NYSDEC's TMDL for phosphorus announced in 2021 clearly indicating what information the TMDL will provide? As stated in the long range plan the organizational structure should strive to prepare a NYSDEC 9E plan for possible funding under Section 319 of the Clean Water Act. The planned TMDL will address several of the 9E requirements. With regard to private waste water treatment there is the lack of an inventory of private waste water systems in the plan. Is the intent to wait for the NYSDEC TMDL for the inventory to be complied or is there one available now? Some facts for possible inclusion are:

a. Point sources to include:
    i. all municipal waste water treatment in the Indian River watershed
    ii. MS4's within the watershed
    iii. CAFO's of all classifications with in the watershed
    iv. Evaluation of the above with respect to required compliance
b. Non-point sources to include:
    Private waste water systems
        1. How many?
        2. Percentage constructed predating current NYSDOH criteria
        3. Percentage with updated waste water systems
        4. Number of participants in SLC waste water system grant program
        5. Any data evaluating waste water system effluent entering the lake by SLC SWCD?

Specific Problem Identification:

Very well done. I am particularly impressed with the plant survey. Most of the narrative addresses the identified aquatic plant issues and the mitigation techniques that are possible and potentially applicable to Black Lake with one exception. The draft is deficient in not providing typical cost estimates for the various mitigation techniques presented. This was done for the 2008 EWM plan as well as in NYSFOLA's Diet for a Small Lake, 2nd edition and in my opinion is essential to the organizational structure's planning activities. Most of the narrative is standard "boilerplate" for the description of aquatic plants.

Invasive Species Prevention Zones (ISPZ) and Priority Management (PMA) Zones

The draft recommends the establishment of ISPZ's for the lake. The ISPZ's are stated to be home to a number of native species which are worthy of protection from increased inhabitation by invasives. A review of Figure 3 raises concern as to the ability of the organization or its contractors to monitor the ISPZ's for possible invasives. The majority of the ISPZ's are either on islands or along the significantly less developed and accessible eastern shoreline. Figure 3 indicates the following:

- 4 ISPZ's are in the extreme southern portion of the lake near the Indian River inlet with 1 possibly in an NYSDEC forest and 3 along the eastern shore.
- In the main section of the southern portion of the lake there are 5 ISPZ's with 1 along County Route 6, 2 on an island, and 2 along the eastern shore.
- In the northern portion of the lake there are 3 ISPZ's with 1 on an island, 1 along the eastern shore possibly in NYSDEC's Detached Forest preserve, and 1 approaching the lake's outlet to the Oswegatchie River.

With respect to PMA's and Rapid Response it is recommended that the narrative include the historical activities of SLELO-PRISM. SLELO-PRISM has identified 4 PMA's in the lake and has established invasive species prevention protocols for Tier 1 invasives including funding. Are the PMA's in Figure 6 consistent with SLELO-PRISM's PMA's? SLELO-PRISM is mentioned in the Short-Term Goals and Tasks. Reviewing Figures 6 and 7 raises concern with respect to the amount of shoreline involved. There are 15 identified PMA's with 6 of the 15 overlaying the recommended ISPZ's. Several of the PMA's are large in size.

Recommended Goals and Tasks

There are three "elephants in the room".

- There is the lack of a suggested organizational structure.
- There are no cost estimates for any of the mitigation techniques and future monitoring to evaluate the effectiveness of the plan recommendations. The 2008 EWM plan included mitigation cost estimates and NYSFOLA's Diet for a Small Lake, albeit it dated, also provided cost estimates. Unlike other lakes in NYS the Black Lake watershed does not appear to be in a strong financial condition to implement an aggressive lake management plan. Would it not be beneficial to provide to the organizational structure the financial considerations for the plan's recommendations?
- There is no goal of establishing an acceptable level of EWM management as well as the economics of attaining the acceptable level of management. The majority of the invasives found in Black Lake are Tier 4 organisms which cannot be eradicated and are designated for local control. Review of other lake management plans as well as presentations made by the Adirondack Water Institute clearly indicate the need to determine acceptable limits of invasive control. Once established frontloaded costs are very high with a gradual decrease in annual control expenses as the desired acceptable limit is neared or obtained. Many questions exist with respect to the determination of the acceptable level of control.

Short Term

- The aforementioned organizational structure concerns
- Lake water level monitoring. With no bridge structure available lake level monitoring will likely have to done during ice free times. The Mid-Term goals suggest a possible location for the water level observation would be near the Route 58 bridge. It is a causeway and not a bridge! Who is going to be responsible for installing the level? Who is going to be responsible for the recording of the data? To whom is the data to be reported?
- There are two specific tasks associated with private waste water systems likely dealing with nutrient loading. There has not been any determination of the nutrient loading in over fifty years with the last being the 1972 federal eutrophication study which only estimated the input of nutrients from major tributaries of the lake. The study stated the majority of the external loading was from the Indian River watershed. In contrast the research of Collins and Young published in 1988 suggested that the majority of the lake's nutrient loading during the summer months was due to internal loading instead of anthropogenic activities. The current NYSDEC WI/PWI suggests the cause of the impaired status is agricultural runoff without identifying the source as direct input to the lake or from external loading. NYSDEC policy states WI/PWI's be done at five-year intervals. The last WI/PWI was an amended version of the previous WI/PWI without any actual evaluation of the lake's condition. NYSDEC announced the development of a TMDL for phosphorus in 2021. This report is of huge significance to any lake management plan as well as the preparation of NYSDEC 9E Plans recommended. There are potential major consequences for the lake and its permanent and seasonal residents based on the TMDL determination. For example, the following is information extracted from the 2012 TMDL for Phosphorus in Chautauqua Lake:
    - Short-circuited systems (those systems in close proximity to surface waters where there is limited opportunity for phosphorus adsorption to take place) also contribute significant phosphorus loads; septic systems within 250 feet of the Lake are subject to potential short-circuiting, with those closer to the Lake more likely to contribute greater loads
    - Approximately 80% of the North Lake's shoreline and 66% of the South Lake's shoreline has sewer service.
    - An analysis of orthoimagery, using GIS, was conducted in areas outside of sewer collection zones since all of the houses are assumed to have septic systems. The analysis showed approximately 114 houses within 50 feet of the North Lake's shoreline and 104 houses within 50 feet of the South Lake's shoreline. Between 50 and 250 feet of the North Lake's shoreline, 218 houses were identified and 122 were identified between 50 and 250 feet of the South Lake's shoreline. Within 50 feet of the shorelines, 100% of septic systems were categorized as short-circuiting. Between 50 and 250 feet of the shoreline, 40% of septic systems were categorized as short-circuiting, 10% were categorized as ponding systems, and 50% were categorized as normal systems.
    - The following were estimated:

South Portion	Normal Functioning	Ponding	Short Circuiting	Total
Sept-May	136	27	342	505
June -August	159	32	399	590

North Portion	Normal Functioning	Ponding	Short Circuiting	Total
Sept-May	244	49	452	745
June-August	284	57	525	866

The TMDL target for the summer epilimnion water layer was set at 20 mcg/L. In order to obtain the goal, the TMDL recommended the following for private wastewater systems:

Lbs./year	Current	Allocated	Reduction	%Change
South	719	470.5	248.9	-35%
North	975.4	215.7	759.7	-78%

It must be noted that the contribution of private waste water systems to the total TMDL were only 3.5% for the northern and 1.4% for the southern portions of the lake. Predating the 2012 TMDL for Chautauqua Lake the Chautauqua Lake Management Plan was finalized in 2010. The plan presented the following recommended strategies to address phosphorus loading from on-site wastewater systems:

The Watershed Coordinator and WQTF should work with the Chautauqua County Department of Health to develop and implement a program to proactively identify failing septic systems and provide funding assistance (e.g., matching grants) for necessary repairs or updates. This program should build on the existing Governor's Office for Small Cities

(GOSC) grant (assists income eligible families maintain failing septic systems) by providing matching grants to families not eligible for the GOSC grant program. [PV]

Develop a permitting system for on-site wastewater treatment systems that would require renewal every three to five years. To receive a permit, the landowner must demonstrate that the system has been properly maintained and is located in accordance with existing State and local regulations. To ensure consistency, this should be developed at the County level. As part of this program, all existing septic systems should be mapped, starting with those in close proximity to water. To implement such a program, the Chautauqua County Health Department would require additional staff and resources.

Create septic maintenance districts to provide for required maintenance and upkeep of onsite septic systems. Prior to development of these districts, pursue federal and state level funding to bring existing on-site septic systems to the same level of repair. These districts should be created within the existing layers of government. To implement such a program, the Chautauqua County Health Department would require additional staff and resources. This could begin as an incentive program through the zoning process or as a demonstration project using state and federal grant resources.

Encourage the use of cluster/community-based septic systems, particularly where lot sizes do not meet minimum on-site septic system requirements. Cluster septic systems allow the filtration

function for multiple units to be placed in one large area, avoiding the need for a separate absorption field for each house.

Encourage the use of on-site treatment facilities to separate and treat greywater (washwater) where appropriate (e.g., condominium developments). Greywater comprises 50 to 80% of residential wastewater and is much cheaper to treat than blackwater (sewage).

If the TMDL for Black Lake establishes recommended reductions in septic system phosphorus loading similar to the above and the majority of residences are in the 0-50 feet and 50-250 feet, there are limited options available with the high probability a public sewer system or a cluster/community-based septic system will need to be created for high density areas. Recently a high-end enclave of predominately seasonal residences on Henderson Harbor in the Town of Henderson in Jefferson County were required to establish a public sewer district. The annual sewer service fee for most of the properties exceeds $1,000 annually.

- Continued EWM harvesting. Several questions need to be answered. Is harvesting recommended for the entire lake or should it be restricted to the North portion of the Lake? Is harvesting recommended to be continuous from June-September or once annually? How are multiple harvester access points going to be established? Equipment purchase/operation/maintenance or independent contractor bids? Should bids be for multiple years? Should the organizational structure only seek funding for the main channel harvesting and charge individual property owners for access to the main channel? Could property owners in close proximity to each other have one channel serving multiple docks? Does the property owner a distance from neighboring residences have to pay the full cost for an individual channel when those close together may only need one channel?
- Herbicides: If read correctly, total lake herbicide coverage is not a recommended course of action. It was a possible action contained in the USACE Reconnaissance Report. Herbicides could have a positive outcome for selective areas primarily shallow bays. Of concern is the large number of ISPZ's and PMA's recommended in the draft. Should herbicides be used in the ISPZ's and PMA's? Could the draft specifically identify the areas for which herbicide use would be appropriate? The ISPZ's and PMA's comprise a significant amount of lake area.
- Repeat plant survey on a semi-annual basis to evaluate herbicide treatment and other aquatic plant management techniques. For the lake management plan GEI charged $18,930 and NEAR charged $34,990 for a total of $53,920 for the plant survey. For a decade the cost will approach $300,000.

Mid-Term Goals and Tasks

- Create a database. Missing is the who. Is a dedicated lake manager position needed to oversee a number of the plan's goals and recommendations? The Indian River Lakes Conservancy has such a position. How is this organization funding the position?
- Additional expenses for expanded herbicide treatment if evaluated as being effective and plant surveys. The issue is funding.

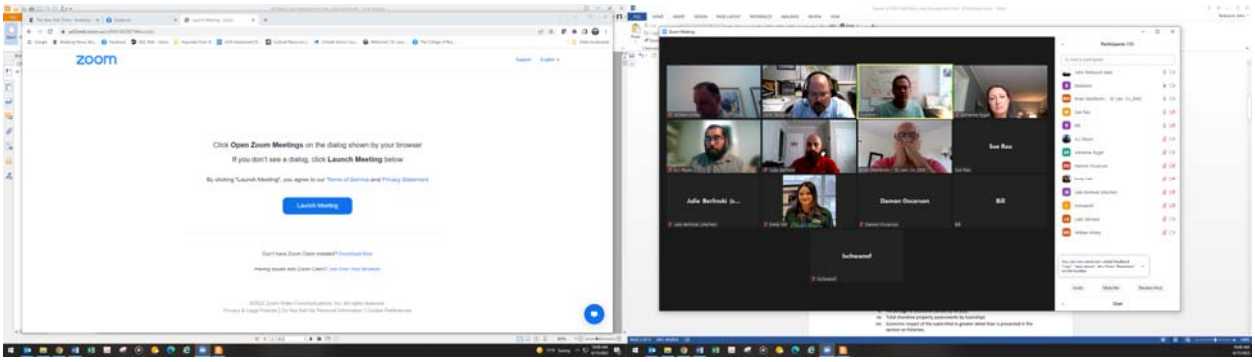
- Conduct a current bathymetric map of the lake. All lakes eventually fill with sediment and several comments were made at Black Lake Summits that areas of the lake are filling with sediment particularly at the mouths of tributaries and in the southern portion of the lake near the causeway. Hydraulic Retention Time is a significant factor in determining nutrient loading. Is the average depth of the lake 8 ft. as stated by NYSDEC or have changes occurred? Did NYSDEC actually do a bathymetric mapping for the current published map of the lake or did NYSDEC use an estimation technique? Will the planned TMDL for the lake actually do a bathymetric mapping or will it use an estimation technique? If an actual bathymetric mapping is deemed significant what is a cost estimate?
- Long-term water quality monitoring stations. What are deemed essential monitored parameters? Since the lake is ice covered for approximately three months/year is monitoring suggested year-round? The SLC-EMC Watershed Management Committee researched the six HUC's of the St. Lawrence River watershed for USGS gaging stations. The only HUC that does not have a gaging station is the Indian River. An inquiry was made to NYSDEC as to why there was none and why is it not a priority of NYSDEC to request USGS to install a gaging station. It was suggested a location near the inlet of the Indian River to Black Lake would be appropriate. Information at the USGS website allows for searches for a myriad of flow characteristics and water quality parameters. Data from an appropriate USGS gaging station combined with continued NYSFOLA CSLAP monitoring might fulfill this goal. It is recommended in the Long-Term Goals the organizational structure should coordinate with researchers from the four colleges and universities in SLC to address several of the goals of the plan. It is recommended this goal be moved forward in the timeline. USFWS is also a major player in lake management from a fisheries perspective both from spawning habitat restoration and research. USFWS currently manages the Fisheries Enhancement, Mitigation, and Research Fund (FEMRF) created as part of the relicensing of the NYPA water control and hydroelectric generating station at Massena. The 2022 review of applications for FEMRF funding included two proposals for research concerning mooneye in the Oswegatchie River. How might this be accomplished in the organizational structure? An academic researcher liaison committee? What is NYSDEC's role in the plan? Should it be recommended an organization similar to the Adirondack Water Institute be created to serve the needs of all water bodies in the county?
- Develop a list of areas with poor stormwater and erosion control practices. And do what with the list? Recommend to individual property owners various erosion control methods? Recommend and/or meet with local governments (highway departments) to discuss the list? Through the development of local government budgets formally request stormwater management funds?

Long Term

- Investigate university partnerships to encourage more management-based research on Black Lake. Universities can provide a unique opportunity to collect a significant amount of data and observations on a relatively reasonable budget. It is recommended this goal be moved forward in the timeline. Academic research maybe able to defer a number of the costs recommended in the plan.

Overall Impression

The referenced Chautauqua Lake Watershed Management Plan provides a stark comparison to GEI's Black Lake Management Plan. The Chautauqua Lake Plan's level of detail as to organizational structure, regional involvement, regional responsibilities, recommended strategies, and cost estimates far exceeds the GEI plan. With the exception of the plant survey, the chemical analyses, and the recommended establishment of ISPZ's and PMA's the GEI plan presents information that is commonly known about the watershed and is no different for the narrative of NYSFOLA's Diet for a Small Lake, 2nd edition.



Plus MB Billerman

LG summarized the LMP.

J Berlinski described TMDL study scheduled for completion in 2023.

JT reported that TMDL will duplicate a 9 Element plan

JB agreed

B Baldwin asked if earlier TMDL done; JB said NO.

BW asked what funding sources would had been come from TMDL

JB will send a list

AJ: many reservoirs in SW US can be a model

Technical advisory group of scientists

Stakeholder group

W Kirkey is in Rio Grande valley he agreed with Kirkey's assessment

B Baldwin asked J Berlinski about deposited phos in Bl Lk. She replied, DEC has data for number of years

E Fell asked if local monitoring uses DEC standards; if not, can it be reconfigured

LG replied that his work has complied

BBaldwin sked which DEC staff local researchers should be in contact with. JB / EF to send a list.

LG asked if he should remove 9 Element plan from recomendations?

BBaldwin said to leave it in to ensure nutrient study/management

DOscarson said to edit doc to reflect that TMDL is underway

WKirkey asked if 319 funding could be moved from long-term to short-medium term goals

LG agreed

JB said that 319 funds not available reserved for DEC staff

JT reported on other funding programs

EF reported n GLAA funding / due 7/1

BW reported that organizational structure is important

BW asked LG, others if permanent lake coordinator should be developed / what costs would be involved with various recomendations

LG said YES, Lake Coordinator would be beneficial

Cost estimates would vary, be preliminary

AJ, Oscar agreed

BW reported that he did not see in recommendations what is an acceptable density of milfoil infestation

Other places had set acceptable minimum densities

LG agreed; he will look for, include such recommendations

BW stated that LMP divided the lake into two ecosystems Lacustrine / riverine

Was the causeway a cause for change into two ecosysems?

LG: two sections will require management plans for two zones

BW, LG: need for good bathymetric survey of the lake (late fall, after plan die-off)

BW: bathymetric map is critical

BW, AJ noted variations in water levels are extensive

EF: Lonesome Bay SF at the inlet to lake; any recommendations for forest best management practices?

AJ: swales, buffer zones, manage

BB asked is primary source of nutrients the inflow from Indian River?

AJ reported that nearby nutrient load will contribute to EWM growth at narrow end/chokepoint

BW reported that last external load study was done in 1972; 60%+ of nutrients coming from Indian River

BW asked if IRLC should be part of a management structure? LG said YES

LSchwanof said that EF had a question with Forest management BMPs

Does NYS do select timber harvesting in the area? Or hands-off?

EF will look into it

JT asked about which subwatersheds should be concentrated on?

LG: begin with Bl Lk watershed; expand to coordinate

BW asked JT to describe EMC's mandate from BOL

BW asked LG about prevalence of HAB around the Lake

LG: HABs widespread; not necessarily producing toxins at any given time

Saw people swimming

AJ said that visual observation may be the best way to report on HAB infestation

DEC has many examples of visual observations for HABs

BDashnaw said CoC sends out notices to businesses along lake

Not sent to private landowners

BW said that one recommendation would be establishment of water-quality monitoring structure

He noted that the Indian River watershed does NOT have a USGS gauging station

Should that be a recommendation to USGS?

LG agreed (SUNY Oneonta could install?)

Put in off boat launch

WKirkey agreed USGS is the gold standard; significant local contribution required

Kirkey's group could do monitoring for less than USGS

BBaldwin: re HABs, recommendation for test treatment: how to do a treatment for pelagic organism?

LG: all observational / test for presence of toxins

SRau: any value to looking at sediments? Do recommendations take climate change into account?

LG: did not look at sediments – lake too large; did note types of sedimats at testing sites

Re climate change: incorporated into management recommendations; not specifically addressed

Adrienne Rygel: started doing small project last year looking at Indian River, Black Creek, Black Lake

How can she coordinate with researchers to make sure her students are doing useful work

AJ: testing hot spots; targeted research

LG: get there during/after storm events

EF: colleague at JCC doing similar work; can put AR in touch

BBaldwin: liked maps that showed spots where native species are; can leave those alone, concentrate on other areas of pervasive EWM

Noted that persons around Bl Lk are dead set against it

LG: try in selected target areas; see what effects