

Milfoil Documentation From SLA Minutes

Compiled by Lea Dickson

-----June 13, 2013

Navigation Committee: Sandy Kraker, Ralph Undercoffler

Milfoil/Invasives Mat barriers:

Sandy reported that the SLA association has funded and installed 9 mats in various locations around the lake to assist in the suppression of the aquatic invasives. The association will from this time forward provide only technical assistance to those property owners who wish to purchase their own mats. The supplier will give Sandy a break on cost. It is suggested that you get together with your neighbors and purchase the mats jointly. The inlet continues to be problematic. Sandy reported that the association had installed 5 mats in the area. Chemicals are available, but there are down sides to dumping chemicals in the lake. Sandy and his crew will begin flipping the mats soon.

-----August 9, 2013

Milfoil/Benthic Mat Barriers:

Gale Ferguson provided a detailed description of the process to install, maintain, and move the mats to a different location. These mats compress the aquatic plants and reduce or block light which inhibits the plant growth. It requires 7 individuals to move the mats that are 12'Wx20'L. This includes 2 divers. Each mat has to be rolled and elevated. The mats are weighted with shot inside pvc every 4 feet. The mats have not been flipped this season. It is highly likely that some mats will not be located. Currently, members of the community are managing a total of 12 mats that cost \$270.00 each. Nine were purchased by the SLA. The consensus of discussion is that the milfoil is here to stay. That we can not pave the lake. However, it was agreed that certain channels or trails maybe needed in the southern part of the lake. The positive side of the increased weed growth is that fishing is good. A good deal of discussion included the importance of individual property owners taking responsibility for their frontage areas. A call went out for the location of the weed winders donated by the Roy and Mary Smith and the construction of additional winders by Sandy Kraker for a total of 13. If you have a Weeder Winder, please contact a board member. Discussion on the viability of the current process for milfoil eradication. It was suggested that the SLA Board discuss rules/ regulations for the management/maintenance of the benthic barriers at their next board meeting. Also, the need for the association to explore additional strategies to manage invasive weed growth.

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-----SLA Meeting, June 20, 2014

The one of the five Priorities the Sylvania Lake Association Board has identified is

- 1) Continue documenting the effectiveness of the 12 aquatic weed barrier mats
The invasive weed barrier mats are working. They hope to move the mats around the 4th of July. Sandy suggested a small area around inlet be tested with chemicals. (Cazenovia Lake is using chemicals and are finding success)

-----SLA Meeting, August 16, 2014

No Report at SLA meeting

-----Board Meeting, 9/20/14

Navigation Committee: Bill deLorraine, Dan Estey, Ralph Undercoffler, Sandy Kraker , Gale Ferguson, Alex Carpenter

Milfoil: Alex and Bill are going to coordinate digitizing the locations of the Benthic Mat barriers in 2015

-----Board Meeting May 15, 2015

Navigation Committee: Bill deLorraine, Dan Estey, Ralph Undercoffler, Sandy Kraker , Gale Ferguson, Alex Carpenter

Milfoil: Alex and Bill are going to coordinate digitizing the locations of the Benthic Mat barriers in 2015

-----Sylvania Lake Meeting/Party, June 19, 2015

No Report

-----August 15, 2015

Navigation:

The benthic mats are very effective. No new mats needed at this time. The association has 9 mats. Wixted, Kraker, Dodds have own mats. Not realistic for the flipping crew to handle more mats. The SLA Board approved paying \$20 per person to assist in the flipping process at their August 1, 2015 meeting. Suggestions were offered to slow weed growth such as wash stations at the boat launch, creating a buffer zone on your waterfront to slow runoff which contributes to the nitrogen levels. Sylvania is deep which helps with the management.

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-----Meeting/Kickoff Party, June 17, 2016

Navigation: Alex Carpenter reported that the Milfoil/Benthic Mat Barriers tentative flip date is July 3, 1PM. Alex will post confirmation on Facebook 1 week prior.

-----Board Meeting, July 16, 2016

Navigation: On Alex and Ralph's recommendation, the Board approved the purchase of 2 Benthic Mat Barriers. Mats were moved on July 4, 2016. It takes 7-8 volunteers. Very difficult work.

-----Board Meeting, May 20, 2017

Navigation: Alex reported 2 new benthic mats were added to the cluster in South Shore. That mats are very effective, however, the work is difficult, especially in colder temperatures. Need more bodies.

-----Sylvia Lake Association Meeting/Kickoff, June 16, 2017

Navigation: Alec Carpenter reported that maintaining and moving the benthic barrier mats is very difficult work. Cold, dark and dangerous. The tentative flip tentative date is Saturday, July 22, 1PM. Alex will post confirmation on Facebook 1 week prior.

-----SLA Meeting , August 11 2017

Navigation: Milfoil/Benthic Mat Barriers-Difficulties related to Flipping the Mats. Ralph and Alex continue to express their concerns regarding Benthic Barrier mat management. Very labor intensive. Volunteers are experiencing burnout. The board has decided to explore additional options for controlling the invasive weeds. Alex indicated that we are not winning the battle.

-----June 15, 2018 SLA Meeting

Guest Speaker:

Our honored guest speaker was Steve LaMere, President, Adirondack Ecologists. Steve and President Bill deLorraine toured the lake on June 15 so that Steve could conduct a field survey of the milfoil patches. Steve has been contracted to collect information relative to the abundance and distribution of this invasive species. Steve will provide the association with a written report and his recommendations.

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In summary: Steve predicts we will lose our battle to invasive weeds in 20 years if we do not act take action immediately. Actions include: hand harvesting with suction hose utilizing 2 divers and a person to manage the process. Approximately \$1000 per day. It should take approximately 5-6 days. The section 25'-30' along Gary Scott's is perfect for the barriers. 6 1/2' to 7'. The mats should be in place no longer than 30 days and we must have a state permit. They should not be left in during the winter. Contributing to the problem is surface runoff. Very few properties have the needed 6-8foot buffer zone of native vegetation (not a grassy lawn) between structures and water. Don't use fertilizers.

Steve entertained a number of questions from property owners regarding use of mats, impact of hoses on fish, use of weevils, impact of runoff and failing septic systems. He encouraged us to join CLAP and reinstate our water testing program that was similar to the Adirondack Lake Assessment Program that we participated in from 2006-2013.

-----Report from Steve LeMere, June 15, 2018

Sylvia Lake Inspection
Fowler, NY (St. Lawrence County)
June 15, 2018

Performed by

Steven A. LaMere, Pres., CLM
Adirondack Ecologists, LLC
P.O. Box 2405
Ballston Spa, New York
www.NYLakeManager.com

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1. Background

Sylvia Lake is a 324-acre body of water in the Town of Fowler in St. Lawrence County, New York. This relatively deep body of water (with maximum and average depths of roughly 140 feet and 70 feet, respectively) possesses a two-tiered fishery, comprised of game fish such as lake trout, rainbow trout, and smallmouth bass. The lake's shoreline is extensively developed and in many cases the shoreline slope is quite high. There is no municipal sewerage around the lake, and most property owners have their own septic systems.

At the request of Mr. William deLorraine (president of the Sylvia Lake Association), Adirondack Ecologists, LLC (AE) conducted a reconnaissance inspection and assessment of the Eurasian water milfoil population (hereafter referred to as EWM) in Sylvia Lake. This assessment included a very general qualitative survey of the known EWM infestations and a search (from the surface by boat) for new EWM infestations around the lake.

In addition to a reconnaissance inspection of the littoral zone, AE also collected two water samples – one in the deeper, north basin and one in the south basin. These samples were transported to the Darrin Fresh Water Institute (DFWI) in Bolton Landing, NY for the analysis of the following parameters: pH, ortho and total phosphorus, total nitrogen, nitrate, calcium, and chlorophyll *a*. The objective of the testing was to develop an understanding of the current limnological condition of the lake and to determine whether high nutrient levels may be contributing significantly to the growth of EWM.

The EWM assessment was undertaken on June 15, 2018 and the primary purpose of the survey was to obtain general abundance and distribution information on the EWM population in the lake. Once this information was obtained, it became the objective of AE to develop both short- and long-term management options for addressing the EWM infestation.

2. Methods

The entire periphery of the lake was traversed via boat in order to obtain a thorough understanding of the nature and character of the aquatic plant

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community present in the near-shore region (< 7 feet water depth) of the littoral zone. As the lake was surveyed, the occurrence of EWM and other aquatic plant species observed was recorded.

A Secchi disk was used to obtain a water clarity reading at the deepest location of the lake in the north basin. In addition, a surface grab sample of lake water was collected from a sampling station in the north and one from the south and these samples were transported (on ice in a cooler) to the DFWI's laboratory for analysis of the above-referenced parameters.

Steve LaMere, the president of **AE**, a certified lake manager, and a Board-certified Environmental Scientist in Surface Water Resources, performed the survey. Mr. deLorraine arranged for local watercraft availability and was present during the conduct of the inspection. After the inspection was performed, Mr. LaMere appeared at the Association's evening meeting to present his preliminary findings and to answer questions.

3. Results

AE was quite surprised at how relatively "sterile" the bottom of Sylvia Lake is from an aquatic plant abundance perspective. The majority of the littoral zone is devoid of submersed aquatic vegetation. Only five species of aquatic plants (EWM, curly-leaf pondweed, pickerelweed, white water lily, and large-leaf pondweed) were observed during the inspection, and the areas where the most aquatic vegetation were encountered were actually those locations where EWM had become established and formed "beds".

With the exception of EWM and curly-leaf pondweed (hereafter referred to as CLP), all of the species observed are native to our region. This number of species represents relatively low diversity. None of the species observed are found on the NY Rare plant status lists (Young 2008). EWM was found to be only sparsely distributed around the lake in roughly a dozen different locations, with the exception of two very densely-infested areas (listed on the lake map as Site #1 and

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Site #2). Site #1 is a rather large bed (measuring roughly an acre or more in size) in about 5^{1/2} feet of water and it contains a very dense infestation of EWM. To their credit, volunteers have used benthic barriers in this location in the past to manage the EWM, but their efforts seem to be falling short of successfully controlling its growth and expansion. Site #2 possesses a much smaller and more easily controllable infestation. The EWM here is in about 6^{1/2} feet of water and is just as dense here as that observed in Site #1, but the size of the infestation does not exceed more than 30 feet by 30 feet in dimension.

In addition, a small patch of CLP (*Potamogeton crispis*) was observed along the eastern shoreline of the lake's outlet. CLP is a submersed species that spreads by both turion production and fragmentation. It generally becomes problematic earlier in the growing season than milfoil does, but diminishes by August in northern climes. It can be effectively controlled if discovered early and control is implemented prior to turion detachment. Hand harvesting of the entire plant - including the lattice-work of underground stems - is the most efficient method of control.

4. Recommendations

Given the nature of the EWM infestation around the lake, it is the opinion of AE that physical control techniques (i.e., utilizing diver hand harvesting and the application of benthic barriers) are the most cost-effective and environmentally-sensitive approaches to invasive plant management.

Site #1 is a large, problematic area and there may be more EWM growing there than what can be handled by volunteer divers. Thus, the Association should consider hiring a professional company experienced in hand or suction harvesting techniques to address the infestation there. AE estimates a week's worth of work (estimate of \$1,000/day x 5+ days = \$5,000 to \$6,000) in this area to perform an initial clearing harvest and then to conduct a thorough post-harvest swim over and clean-up at this site.

All work should be performed during the summer, and benthic barriers are generally very effective at killing all aquatic vegetation that they cover within 30 days of placement. They can be placed in May and used several times in different locations throughout the course of the summer. A permit from the NYS DEC is required to utilize benthic barriers, and some pre- and post-project monitoring may be required by this state regulatory agency as a permit condition.

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AE recommends the following steps be taken:

- A. Establish a “scout” program to look for new EWM and CLP infestations around the lake;
- B. Use benthic barriers to control the small EWM bed at Site #2;
- C. Use either well-trained volunteer divers or a professional dive team to hand harvest or suction harvest the EWM in the expansive bed located at Site #1 (estimate of \$6,000 to \$7,000);
- D. Use volunteer divers to hand harvest stray EWM and CLP plants wherever encountered in the lake as a result of the scout program work;
- E. Enroll in the Citizens Statewide Lake Assessment Program (CSLAP) in order to monitor the lake’s quality and clarity on an annual basis;
- F. Develop and implement a lake-wide environmental outreach and educational campaign to help shore owners understand the importance of initiatives like: a.) proper septic system maintenance; b.) avoidance of phosphorus fertilizer use adjacent to or upslope of the shoreline; c.) management and minimization of storm water runoff into the lake; d.) utilization of buffer strips (with a width of at least 6 feet) on the shoreline using native vegetation to intercept nutrients, and e.) the minimization of shoreline tree cutting.

5. References

Young, S.M. 2008. NY Rare plant status lists June 2008. NYS Natural Heritage Program, NYSDEC, Latham, NY http://www.dec.ny.gov/docs/wildlife_pdf/Rare_Plant_Status_Lists_2008.pdf

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Additional Milfoil Harvesting companies: notes

If you are successful with lining up a dive firm for next year, you will want to make contact with the DEC and start the permitting process this fall (permits should be in hand by sometime in May prior to the commencement of work). If you need my services in completing the permit application, please let me know. Otherwise, I would still recommend professional oversight of the dive team next year (on opening and ending days of their work) to make sure you get what you pay for. Good luck!

As promised, please see the contact information for dive companies. You may tell them I referred you, but as I said the other day, I cannot vouch for any of them. All I can say is that they are likely better, in my opinion, than those I purposely did not list. Be advised, none of these outfits are stellar about returning phone calls.

[AquaLogic](#) (suction harvesting) - (518) 223-8851

[AE Diving Commercial Services](#) - (802) 558-2985

Steven A. LaMere

President / CLM, BCES

Adirondack Ecologists, LLC

President

Adirondack Conservation Council, Inc.

Region 5 Director & Environmental Policy Analyst

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Yes, indeed, I would recommend that DEC permitting for benthic barrier use (in 2019) be initiated by November at the latest. In addition, dive crews should be contacted in October/November for 2019 hand harvesting or suction harvesting scheduling. If you need or desire to retain me to assist you with the permitting process of for monitoring of the harvesting crew operation in 2019, please let me know when you can. (Steve)

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2019 Additional Harvesting Resources

1) AE Commercial Diving

<https://aquaticinvasivecontrol.com>

PO Box 417 Manchester Center, VT. (802) 558-2985 aediving@gmail.com

2)New England Milfoil

<http://www.newenglandmilfoil.com>

391 Center Conway Road, Brownfield, ME 04010 603-387-2425

NEMilfoil@gmail.com

3) Adirondack Park Invasive Plant Program

<http://adkinvasives.com/minerva-lakes-dash-for-urasian-watermilfoil-control/> P.O. Box 65

Keene Valley, New York 12943

(518) 576-2082

4) Aqualogic <https://www.facebook.com/aqualogic1/>

a science-minded company focused on integrated management techniques for invasive aquatic plant control.

P.o. box 182, Johnsburg, New York

(518) 223-8851

dom.jude@aqlogic.co

Chazy Lake removal article: https://www.pressrepublican.com/news/local_news/chazy-lake-supporters-spread-the-word-not-the-milfoil/article_bddc7197-2f6f-5c8b-8765-de9dcd83ef3e.html

5) Aqua Cleaner Environmental

<http://www.aquacleaner.com/about.html>

PO Box 8

Lancaster, NY 14086 585 752- 7930 info@aquacleaner.com

August 11, 2019 DASH Committee Meeting , DASH (Diver Assisted Suction Harvesting) Sub-committee of the Sylvia Lake Association

-----August 11, 2019; 2:00 PM

Aboard the SS Ferguson

Committee members present:

Ralph Undercoffler, Jane Dodds, Mike Tersmette, Gale Ferguson

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- A. Statement of problem: Although our current system of milfoil control/abatement using benthic mats is effective in the largest patches of growth along the east shore and south end, it is a challenge to recruit volunteers to move the mats as necessary to eradicate the milfoil entirely.
- B. Report on Black Lake Association presentation (Thursday, August 8, 2019) on milfoil control efforts- DASH representatives Jane Dodds and Gale Ferguson (along with several other Sylvia Lake residents) attended the meeting and provided information on what our neighbors at Black Lake are doing to address their milfoil problem. Jane provided a copy of the Black Lake Newsletter that had pages of information on control techniques, benthic mat comparisons including sizes, materials, cost, places to buy mats, etc. The report also contained the advantages and disadvantages of suction harvesting, hand pulling, benthic mats, and mechanical macrophyte harvesting. DASH will try to provide copies of the report at the SLA meeting on August 17th to share the findings with our neighbors here at Sylvia Lake.
- C. Current DASH recommendations to the SLA Board:
 - 1. Provide educational presentations on why milfoil is a problem, what can happen if it isn't controlled effectively, how individual property owners can protect their waterfront and the lake in general, and how to use simple and effective steps to eliminate milfoil from shallow water;
 - 2. Establish a loan system for "weed winders" so property owners can eradicate milfoil at their camps;
 - 3. Investigate whether benthic mats can be cut to smaller sizes making them easier to move by volunteers;
 - 4. Have property owners experiment using small tarps, foot mats, or other materials that will not decompose underwater to see if they can be effective in milfoil control and easily useable by individual property owners;
 - 5. Devise a list of willing volunteers who would become knowledgeable about the placement and movement of benthic mats and are willing to help when needed-but not every time-the mats need to be moved;
 - 6. Continue to contact companies in the northeast that provide DASH (or similar) to see if they would provide a quote for services. Two DASH committee members have made multiple calls but have not been able to speak with a company representative about our needs. Also, concerns about commercial contracts include whether or not Sylvia Lake is a big

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enough project for companies to tackle, would a multiyear contract be required, and without question the cost of DASH services, especially if a multiyear contract is required;

7. Delay contracting with a DASH service provider until the techniques listed above (see 1-5) have been tried and the results evaluated.

D. Ralph Undercoffler will do a brief presentation at the SLA meeting on August 17 on the recommendations listed above.

-----June 29, 2020 From Sandy Kraker

Attached are correspondences from Will Abel from Miller's Turf who toured the lake w/ Mike Tersmette this past fall. As mentioned, Miller's Turf treated a 10 acre area on Pleasant Lake. I have also had conversations with Pleasant Lake board president John Ashcroft and the main POC on the project Vern Scoville to get their take on lake resident reactions to the treatment.

Also included is Pro / Con Milfoil Action spreadsheet that was exchanged within our DASH invasive sub-group (Gale Ferguson, Ralph Undercoffler, Jane Dodds and Mike Tersmette).

I'll be putting together a summary by the 10th that will hopefully be palatable for Shari's mailing and usable for the website.