



Herbicide Treatment 2019 Results and Discussion

Overview

In 2019 LYLPS contracted with Solitude Lake Management to treat 18.2 acres of Little York Lake with Navigate to reduce variable leaf milfoil in the lake. The treatment was applied on May 30th without incident.

Subsequent feedback from the public and observations by LYLPS concluded that the treatment was generally successful. This report provides additional background and analysis to support future decision making.

Project Outline

The treatment project was initiated in the fall of 2018 and culminated with treatment and water testing in June of 2019. Subsequent surveys and direct observations were conducted by LYLPS to assess the results.

- During 2018 we learned of change in DEC policy regarding 2-4,D
- Potentially provides relatively low cost, low impact control of milfoil
- Surveyed lake owners in fall of 2018 and received very positive response
- Decided to pursue project
- Filed with DEC for permit on 2/25
- Notified riparian owners of plans on 2/25
- Meeting with SWCD on 4/9
- Meeting with Cortland County Ag and Planning Committee on 4/11
- Conducted riparian owner briefing on 4/18
- Received permit on 5/7
- Conducted treatment on 5/30
- Downstream water use restrictions lifted on 6/13

The treatment area is shown in the following map. The area was selected to maximize the shoreline treatment area while minimizing the downstream notification area. The gap on the western shoreline is an area with a steep shoreline that would have required a higher concentration of Navigate and would have reduced the treatment area. Similarly, the southern end of the lake was not treated due to its proximity to the outflow stream.



2019 Lake Treatment Area

Funding

Riparian owners in the treatment area were asked to contribute a pro rata amount to sponsor the treatment. We had 91% of owners pay and subsequently did not treat the shoreline for non-paying owners. SWCD paid for treatment of the northern shoreline along the public boat launch and public dock.

Treatment

Solitude treated the target area using an airboat on May 30th. The treatment lasted approximately 2 hours and was monitored by DEC. Approximately 2,100 pounds of Navigate at a dosage of 2ppm were applied.





Results

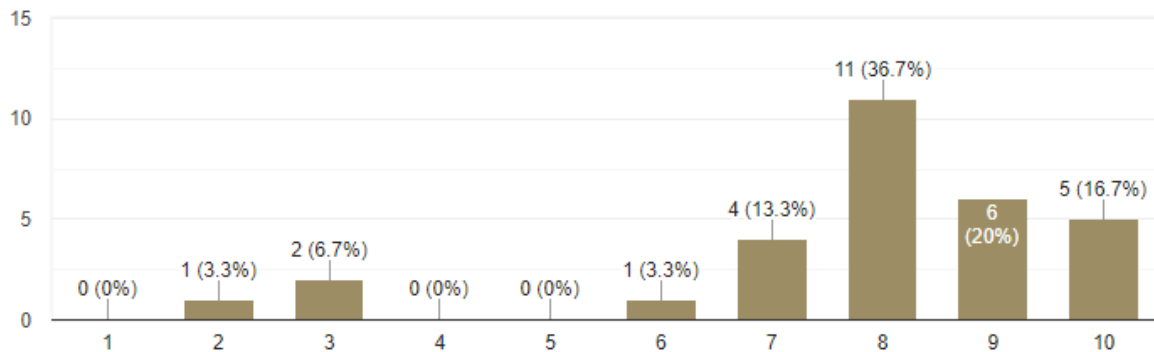
Overall, we feel that the treatment was a success, though there were shortcomings and learnings.

Successes

- Cleared where treated – during mid-June and early September inspections we observed that treated areas had dramatically reduced levels of VLM with many areas completely cleared.
- Less surface litter – probably the biggest success for the lake overall was the reduction in surface litter, the stems of the milfoil broken off by wave action or boating. This litter has had a substantial negative impact on riparian owners as well as the public boat launch. We did not fully anticipate the benefit from this when planning the treatment.
- Positive response from the community – in addition to anecdotal responses, we conducted a survey of the lake community and received a very positive response.

In your opinion, how well did the treatment control the Variable Leaf Milfoil?

30 responses



Shortcomings

- Didn't treat everywhere promised – Solitude did not treat everywhere planned. This included areas with docks and areas where the surface is covered by European Frogbit.
- Increased blooms – we observed more extensive algae blooms in the lake, though we did not identify any harmful blooms. We are not sure if this was a result of the treatment or would have occurred regardless.
- Other nuisance/invasive plants may have expanded – we have the perception that starry stonewort and/or chara in areas that were previously occupied by VLM. Unfortunately, we do not have accurate survey data to confirm this.

Learnings

- Need to watch more closely how product applied so areas not missed.
- Need to specify which plants want addressed and exactly where
- Need to establish a baseline of plants in the lake



Summary

Overall the treatment appears to be successful for 2019 and we intend to survey the treated areas in 2020 to determine any residual benefit. This will help us in fully evaluating herbicides as a tool in our ongoing lake management plan.