

September 6, 2023

Pine Canyon Lake Association, Inc.
Attn: Karl King & Chad Harpster
Ln 100 Pine Canyon Lake
Angola, IN 46703



PLM
LAKE & LAND
MANAGEMENT CORP

PLM Lake & Land Management Corp. will provide a professional aquatic plant management program for the control of weeds and/or algae for **Pine Canyon Lake** for the 2024 season.

Management program for 2024: Controlling exotic such as “Hybrid” Eurasian Watermilfoil, Curlyleaf pondweed, Phragmites and Starry Stonewort throughout Pine Canyon Lake utilizing systemic herbicides when appropriate. Management will also include pre/post treatment surveys, water quality analysis and Bathymetric mapping pending budgets. Fisheries and additional management options will be provided per request and/or based on PLM observations.

Overall management went well during the 2023 season. Invasive species such as; “Hybrid” Eurasian watermilfoil, Curlyleaf pondweed, Phragmites and Starry stonewort were addressed as needed throughout the season. Although there was a budget limitation for 2023, we were still able to meet our management objectives. The management program will be similar in 2024 with no increase in the cost per unit of management, per our contract agreement. Although, it is likely that Eurasian watermilfoil and Starry stonewort will require more treatment area in 2024. Whether or not a \$5,000 budget in 2024 will create management limitations is uncertain but PLM will work within established budgets to maximize ecological stability throughout Pine Canyon Lake.

Outside of our primary invasive plant management, water quality monitoring and maintaining an ecological stability goals; I believe that Pine Canyon Lake and its residents could benefit from a reduction of native plant biomass. Treatment of native plants with contact herbicides to reduce their stature is one option that could be discussed, although I think mechanical harvesting would be more beneficial. Harvesting will remove biomass that would naturally die and accumulate in the bottom sediments. By removing the biomass, we not only slowing the eutrophication process but also increasing recreational ability for lake residents.

If harvesting was considered as a management option the cost would be \$325.00 per hour, estimating ~ 15 hours, \$4,875.00 harvesting budget. Please note that Harvesting is included in 2025 thru 2027 budgets.

Estimated cost for management for 2024:

- 2-5 acres of EWM with an average depth of 3 ft using 2 PDU’s / acre ft
- 2-12 acres of CLP
- 1-2 acres of Phrag.
- 5-10 acres of SSW

	Budget 2024
Eurasian Watermilfoil Control:	\$ 1,500.00
Curly Leaf Pond Weed Control:	\$ 1,500.00
Starry stonewort Control:	\$ 1,000.00
Phragmites Control:	\$ 240.00
Management Services:	
WQ Program:	\$ 760.00
AVAS Surveys:	\$ NC
Total:	\$ 5,000.00

Years:	2024	2025	2026	2027
Estimated Yearly Budget:	\$5,000(Limited)	TBD (\$12,000)	TBD (\$12,000)	TBD (\$12,500)

5-year budget = TBD *Each year in October/November PCLA and PLM will agree on a budget for the following year

Annual Proposed Timeline

Spring 2024: PLM provides notice of proposed treatment schedule or Association newsletter includes notice. Water quality testing and survey.

May: Treat invasive species as needed.

June-August: Survey, Potential herbicide and/or algaecide applications, Water quality E. coli

August/September: Survey, Potential herbicide application, Water Quality testing.

Fall 2024: Year End Review of program supplied to Board.

Treatment Notification Prior to Treatment: Email notification will be given to contact (or distribution list) to notify of tentative treatment schedule. This notice will be given as soon as a schedule is set, which would typically be late in the week prior to scheduled week. PLM is willing to work with additional requests and amend this aspect of the proposal to finalize a notification plan that is best for the Pine Canyon Lake Association and treatment success.

We look forward to the challenge of controlling the algae and weed growth in **Pine Canyon Lake** and working with you next summer.

Information regarding tentative treatment dates will be sent in the spring of 2024.

Sincerely,

Andy Tomaszewski, Ecologist
Southern MI Regional Manager
PLM Lake & Land Management Corp.
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cc: Jason Broekstra, PLM Lake & Land Management Corp.