



December 16, 2019

Clark Lake
Columbia Township
Attn: Robert Elrod
8500 Jefferson
Brooklyn MI 49230

PLM Lake & Land Management will provide a lake management program for the control of exotic weeds and/or algae in **Clark Lake for the 2020 season**. The 2020 season will consist of addressing exotic plants (Eurasian watermilfoil and Starry stonewort).

Management program for 2020

This proposal focuses on a management program for hybrid Eurasian watermilfoil and Starry stonewort control. As of the September 2019 survey, there was approximately 1-2 acres of Eurasian watermilfoil (hybrid) found within the lake and approximately 2-4 acres of Starry stonewort. The Starry is expected to expand during the 2020 season; therefore estimates will be based on 5-10 acres for the 2020 season.

The remaining nearshore HEWM should be treated with ProcellaCOR. Any offshore areas of HEWM should be treated with Renovate OTF. The Starry stonewort should be treated with copper products. Copper products range in cost depending upon formulation and dose rates.

Unit cost per acre.

Renovate OTF:	\$600.00@ 160 lb/acre
Copper sulfate (Starry stonewort):	\$65.00
Komeen Crystal (Starry stonewort):	\$500.00
ProcellaCOR:	\$120/ pdu (pricing is based on pdu/acft to be determined)

Optional Services

AVAS Survey:	\$750.00
Water Quality Program:	\$550.00

2020 Treatment Program:

Initial treatment May/June:	
Estimated 1-2 acres ProcellaCOR for near shore hybrid milfoil:	\$2,000.00
Estimated 2-4 acres Copper sulfate:	\$260.00

Follow up Treatment July/August:	
Estimated 4-8 acres Copper sulfate for Starry stonewort:	\$520.00
Estimated 5 acres Renovate OTF:	\$3,000.00

Estimated Treatment Cost for 2020: \$5,780.00

Total Estimate Management Costs (2020) Includes permit fee (\$1,500.00 annually), Water Quality (\$550.00 annually), Surveys (\$750.00 for annual fall AVAS) & Treatments.

2020: \$8,580.00

Water Quality Program:

The water quality program consists of two samples, occurring in the spring, and late summer each season. Parameter such as secchi disc, pH, D.O., conductivity, alkalinity and nutrient sampling of total nitrogen and total phosphorus give us the ability to monitor lake trends more efficiently. This information will enable us to include the trophic status of your lake. The program also tests your water for Fecal bacteria (E. Coli), in mid-summer which can determine the condition of your lake and if the water is safe for swimming. Reports will be issued annually in the fall.

Cost for Water Quality Program: \$550.00

Permit Fee(\$1,500 annually):

PLM Lake & Land Management is responsible for completing and submitting aquatic nuisance permit applications. PLM Lake & Land Management will send an invoice or statement for the yearly DEQ permit application fee. It is your responsibility to send a check made out to the "State of Michigan" to our office. We must include this check with the DEQ permit application.

Posting of Treatment Areas:

Posting of shoreline treatment areas is the responsibility of PLM Lake & Land Management and will be conducted according to MIDEQ regulations. Signs will be attached to thick barked trees, posts or other suitable fixtures already on site. If homeowners wish to have signs posted in designated areas or on specific fixtures they must notify PLM Lake & Land Management, providing lake address, location of property, and where the signs are to be posted. Pictures are the most informative way to relay this information. Notification of alternate posting must be made at least 14 days prior to treatment and additional fees may apply. The removal of posting signs after the restrictions have expired is the responsibility of the homeowner.

Notification of Treatments:

PLM Lake & Land Management will notify each resident within **100 feet** of the treatment area **at least seven days** in advance, **but no more than forty-five days** prior to the first treatment date, that products will be applied to the lake. This notification requirement **must** be administered to each and every property owner within 100 feet of any treatment area. PLM Lake & Land Management will provide a tentative treatment schedule and the **Notice** of proposed products to be used during the spring of each year. We will also notify resident within 100 feet of the treatment areas on the day of treatment.

Non-Target Species:

Please be aware that we only control weeds and algae **present** at time of treatment. Emergent vegetation (cattails, bulrush, purple loosestrife), lily pads, eel grass and sago pondweed require separate programs for control and are not addressed unless specifically mentioned in the management program. We have no control over future weed or algae growth based on the current chemicals registered for aquatic use in Michigan.

Invoicing and Payments:

PLM Lake & Land Management will submit an invoice following treatment that will include the following information; lake and/or pond(s) treated, date of treatment and type of treatment or acres treated. Monies will be due net fifteen (15) days after each treatment. Interest of 1.25% will be added to your bill for each additional sixty (60) days that payment is not received.

Liability Issues:

We are responsible for workman's compensation and liability insurance for the duration of the contracted period. PLM Lake & Land Management is not responsible for fish loss due to low oxygen levels caused during warm water conditions. Please sign and return one copy of this proposal as our contract along with property owners permissions.

For further clarification or modifications, please contact.



Steve Hanson, MS Fisheries
Regional Manager
PLM Lake & Land Management
800.382.4434 xt.2100

For: **Clark Lake/ Columbia Township**

2020 Season _____

Print Name

Date

Signature