



December 19, 2016

Sand Lake POA (Cambridge / Franklin Townships)
C/O: Terry Flood
5452 Rays Drive
Onsted, MI 49265

The following proposal is for the control of hybrid Eurasian watermilfoil and Starry stonewort in Sand Lake for the 2017 season.

Management program for 2017: Sonar Treatment (Whole-lake Volume Including SePRO Guarantee)

Sonar Treatment Based on Whole-Lake Volume/Flexible bump

Initial Treatment @ 6 ppb (whole-lake volume):	\$39,847.50
Bump-Up Treatment @ 2ppb (thermocline):	\$10,645.55
Optional Bump-Up treatment @ 2ppb (thermocline):	\$10,645.55
DEQ Requirements:	\$6,500.00
Starry stonewort treatments:	<u>\$0.00 (no charge for 2017)</u>
Estimated Total:	\$56,993.05 - \$67,638.60

Note: DEQ requirements include 2017 permit (\$1500), Vegetation Survey (\$800), Water Quality Sampling (\$550), Lake Management Plan (\$1,250) & Sonar residue collection & analysis (\$2,400).

Total 2017 Budget: Not to Exceed \$62,300.00

Management Program for 2018 (Extended HEWM Guarantee)

Spot treatments (<1acre patches) of HEWM may be required during the 2018 season. Spot treatment will be done using Renovate OTF at a rate of 200 - 250lb/ac. The amount of regrowth and/or when new introductions of HEWM will be found is hard to predict and will not be known until summer of 2018. Due to this uncertainty treatment needs and associated cost, PLM will extend our 2017 guarantee of HEWM control through July 1, 2018.

If HEWM is found growing after July 1st 2018, PLM recommends a budget of \$3,000 for spot treatments. If HEWM control treatments exceed this \$3,000 budget, PLM will treat additional areas of growth at no additional charge. The type and dose of herbicides will be determined according to DEQ permit conditions, potential treatment area and stage of growth.

2018 Unit cost per acre:

Systemic Herbicides:

Renovate OTF (200#/ac): \$665.00
Renovate OTF (225#/ac): \$745.00
Renovate OTF (250#/ac): \$825.00

Renovate 3 (liquid @1.5 ppm): \$375.00

Contact Herbicides:

Clipper (200ppb): \$700.00
Diquat (1 gal/ac): \$200.00
Aquathol K/Hydrothol 191: \$235.00
Copper (Algaecides): \$45.00
Copper (Starry Stonewort): \$65.00

Technical Services:

Vegetation Survey: \$800.00
Water Quality Program: \$550.00

Estimated management costs 2018: \$5,000.00 - \$13,000.00

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 tropic 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

Surveys: Performing surveys is a vital part of any lake management program. PLM surveys a lake in the spring and fall as well as surveying for pre/post treatments. Lake representatives are welcome to arrange joining PLM for a survey. Depending on the type of survey performed, a cost may apply. An AVAS survey is a more specific survey performed for specific reasons. Performing spring and fall AVAS surveys of the lake will allow for all vegetation within the lake, native and exotic, to be recorded along with density. This data is important in determining management plans and treatment areas. A full understanding of the vegetation growing within the lake can indicate problems within an aquatic environment. Surveys will be supplied to the lake association upon completion with a breakdown of what the survey indicates.

Contract Period (2 year): Multiple Year Treatment Program: If total chemical cost increases 10% from the previous year a new agreement will have to be mutually acceptable. In each of the years during the life of this contract, there shall be a notice period designated as December 1 through December 30. During the notice period, either party may terminate the contract for the remaining calendar years of the contract with or without cause by providing written notice of their intentions to terminate the contract to the address of the other party.

One Year Treatment Program: Pricing is based on the type and the amount of vegetation or algae present at the time of treatment, as well as, the products applied. Unlike the multiple year program, an agreeable price structure is not contracted into a one-year program. Therefore, an increase in the cost of products, labor, or changes made by the DEQ or other regulatory agencies may have a drastic effect on the pricing for following years.

Permit Fee:

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 Corp is offering extended payment terms for the 2017 Sonar AS application. Basically, all current funds available with 2016/2017 winter property owner assessment will be paid 30 days after the initial Sonar AS treatment. The balance of the 2017 treatment program will be due after the winter 2017/2018 winter property owner assessment has been collected. Once the balance of the 2017 management program has been paid in full, then traditional payment conditions will be implemented as referenced below.

2018: 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.

Information regarding the 2017 treatment schedule will be sent out during the spring. For further information or clarification please contact:



Steve Hanson, MS Fisheries
Regional Manager
PLM Lake & Land Management
800-382-4434 ext. 2101

For: Sand Lake Property Owners Association
Multiple Year Program: (2017 -2018) _____

Terrence P. Flood, President, Sand Lake Property Owners Association
Print Name



Signature

December 19, 2016
Date

