



November 8, 2017

Chippewa Lake
 Township of Chippewa
 PO Box 26
 Chippewa Lake, MI 49320

Thank you for choosing to work with PLM in 2017 on Chippewa Lake. The following update is provided as part of our current contract for services on Chippewa Lake. As part of your agreement, no unit cost increases have been made for the 2018 season.

In 2017, a large EWM treatment took place and was successful at reducing the coverage of EWM lake wide. With a warm fall, varying weather patterns and a wide spread and dense EWM infestation, it is highly recommended to keep diligent in the management of Chippewa Lake. The 2017 treatment program will likely reduce growth in 2018, but the extent is unknown and an updated spring survey will guide the 2018 treatment program.

Management Program for Chippewa Lake, 2018:

Winter 2017/2018: Select Lake Manager, Apply for MDEQ Permit

Spring 2018: Newsletter/notification to residents

April/May/June: Spring survey. Potential initial herbicide application. Water Quality testing.

June/July/August: Pre/post treatment surveys as required. Follow up herbicide treatments based on growth of vegetation. Water Quality testing.

August/Sept: Pre/post treatment surveys as required. Emergent (Phrag) treatment if required. Fall AVAS Survey. Water Quality testing.

Fall/Winter 2018: Prepare year end reports on Chippewa Lake. Develop management plans and recommendations for 2018.

Note: PLM schedules roughly every 3 to 4 weeks for pre/post surveys and applications and performs services only based on approval and set management programs.

Unit Costs Per Acre

Systemic Herbicides:

	Cost:	Application Rate:	
Sculpin G:	\$300.00	@120lbs/acre	NOT APPROVED FOR USE, Quoted for reference
Navigate:	\$340.00	@100lbs/acre	NOT APPROVED FOR USE, Quoted for reference
Renovate OTF:	\$415.00	@120lbs/acre	
Renovate 3:	\$215.00	@2.5gals/acre	

Contact Herbicides:

Diquat:	\$150.00	@1gal/acre
Diquat:	\$175.00	@2gals/acre
Aquathol K:	\$160.00	@1gal/acre
Clipper:	\$525.00	@200ppb
Clipper:	\$375.00	@100ppb + contacts

Other Services:

Nautique:	\$350.00	@7.5gals/acre
Komeen Crystals:	\$490.00	@30lbs/acre
Algaecides (per acre):	\$35.00	@5-6lbs/acre + chelated copper
Algaecides (per acre):	\$40.00	@13lbs/acre
SeClear G:	\$150.00	@20lbs/acre
Emergents:	\$200-\$300.00	per acre/pending plant, infestation density and location
Annual Survey Program:	\$1,300.00	
Water Quality Program:	\$600.00	

Lake Management Plan: \$750.00
 Newsletter: \$300.00
 RenTest: \$175.00
 Bacteria Augmentation: \$270.00/acre
 Biobase mapping: inquire for pricing
 Mechanical Harvesting \$250.00/hour (\$5,000.00 minimum)
 DEQ Permit: \$1,500.00

Sonar A.S Treatment Option

Sonar A.S: \$2,100.00 @per gallon
 FasTEST: \$175.00 @per sample

*Unit cost application rates are provided. If the application rate is adjusted, the unit cost will be proportionally adjusted for the increase in rate.

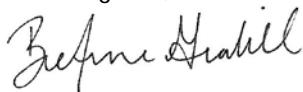
Estimated Budget for 2018: All budgets are comprised using the unit costs per acre listed above and estimated acres based on previous knowledge of the lake. Weather and other unforeseen circumstances may impact the below budget. All treatments will be done within your set/available budget. Note: Infestation of exotic plants can change quickly and an up to date survey needs to be completed in order to determine the final need and cost of treatments in 2018. Working together, we can determine treatment needs and perform treatments within your program finances. The following budget is an option available based on services requested and options available for Chippewa Lake. As a Lake Manager, PLM will work with your group and your budget to determine the best course of action for Chippewa Lake.

	Low	Expected	High	
Permit:	\$ 1,500.00	\$ 1,500.00	\$ 1,500.00	
Algae Control:	\$ 2,500.00	\$ 3,500.00	\$ 5,000.00	0-60 acres estimated for treatment
Exotic Weed Control:	\$50,000.00	\$57,800.00	\$ 73,550.00	**see breakdown notes below
Native Weed Control:	\$18,800.00	\$20,000.00	\$ 27,000.00	limited treatment if needed,(i.e. Wild Celery)
Subtotal:	\$72,800.00	\$82,800.00	\$107,050.00	
Management Services:				
Survey program:	\$ 1,300.00	\$ 1,300.00	\$ 1,300.00	
WQ Program:	\$ 600.00	\$ 600.00	\$ 600.00	
Newsletter:	\$ 300.00	\$ 300.00	\$ 300.00	
LMP:	\$ 000.00	\$ 000.00	\$ 750.00	
Subtotal:	\$ 2,200.00	\$ 2,200.00	\$ 2,950.00	
Proposed Total:	\$75,000.00	\$85,000.00	\$110,000.00	estimated, program specifics tbd

Information regarding the schedule for the 2018 treatment season will be sent out in the spring. If you have any questions or concerns regarding your treatment program, please do not hesitate to contact me.

I look forward to working with you next summer!

Best Regards,



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