

CONTRACT

THIS AGREEMENT, made and entered into this 18th day of October, 2022, by and between the Hamburg Township Board, hereinafter called the "Board," and PLM Lake & Land Management Corporation, hereinafter called the "Contractor," to wit:

1. That the bid form, instructions to bidders, insurance requirements, specifications, and addenda hereto attached or herein referred to, shall be and are hereby made a part of this agreement and contract.
2. That the Contractor shall furnish all labor, materials, and equipment necessary and do all the work as set forth in the bid according to the specifications and contract documents, which have hereinbefore been made a part of this contract in a manner, time, and place as herein set forth.
3. That the Contractor shall indemnify the Board, its officers, agents, servants, volunteers, and employees from any and all liabilities, claims, liens, demands, and costs, including Contractor's own employees and for loss or damage to any property in connection with or in any way incidental to or arising out of the occupancy, use, service, operations, performance or non-performance of work in connection with this contract resulting from negligent acts or omissions of Contractor, any Subcontractor, or any employee, agent or representative of Contractor.
4. That the term of the contract is effective from the date above written until December 31, 2024, or earlier, at the sole discretion of the Board.

IN CONSIDERATION WHEREOF, said Board promises and agrees to compensate said Contractor the unit price provided in the attached bid, dated August 2, 2022.

Payments shall be made upon satisfactory completion of the harvesting work based on a review of the payment submittal forms and approval by the Consultant.

For the faithful performance of all of the stipulations, terms, and conditions of this agreement, said parties respectfully bind themselves and their successors, heirs, executors, administrators, and assigns.

IN WITNESS WHEREOF, the parties have hereunto set their hands, the day and year first above written.

HAMBURG TOWNSHIP BOARD:

By: _____
(Signature)

Name: _____
(Printed)

Title: _____
(Printed)

PLM LAKE & LAND MANAGEMENT CORP.:

By: BreAnne Grabill
(Signature)

Name: BreAnne Grabill
(Printed)

Title: Senior Regional Manager
(Printed)

BID FORM

BID DATE: 3 p.m. on Tuesday, August 16, 2022

BID TO: Hamburg Township Board
c/o Paul Hausler, Progressive AE
1811 4 Mile Road, NE
Grand Rapids, MI 49525-2442

BID FROM: **PLM Lake & Land Management Corp.**

(Company Name of Bidder)

PO Box 424, Evart MI 49631

(Company Address)

800-382-4434

(Telephone Number)

In compliance with your invitation for bids, bidder hereby proposes to perform all work related to aquatic plant harvesting of Hamburg Lakes, Hamburg Township, Livingston County, Michigan, in strict accordance with the contract documents, within the time set forth therein, and at the prices stated below.

By submission of this bid, the bidder certifies that this bid has been arrived at independently without consultation, communication, or agreement as to any matter relating to this bid with any other bidder or with any competitor.

Further, the bidder also certifies that he/she has examined the contract documents and the location of the work described herein and is fully informed as to the nature of the work and the conditions relating to its performance.

The bidder understands that the acreage listed is approximate only and subject to either increase or decrease. The bidder agrees that the unit prices named will be used if additions or deductions are made to the quantity of work.

The bidder shall include and be deemed to have included in his bid all Michigan sales and use taxes currently imposed by legislative enactment and as administered by the Michigan Department of Treasury on the bid date.

All work described in the contract documents and required for completion of the project shall be considered as incidental work unless designated as a pay item on the Bid Form.

The undersigned, having familiarized himself/herself with the instructions to bidders and the specifications, hereby proposes to perform everything required and to provide and furnish all of the labor, materials, equipment, and all utility and transportation services necessary to perform and complete all the work required for aquatic plant cutting and removal on Hamburg Lakes in a workmanlike manner, all in accordance with the specifications at and for the following named price to wit:

ITEM DESCRIPTION	QUANTITY	UNIT BID PRICE	TOTAL
Native Plant Harvesting	25 Acres	\$ <u>500.00</u> Per Acre	\$ <u>12,500.00</u>
Starry Stonewort Harvesting	25 Acres	\$ <u>600.00</u> Per Acre	\$ <u>15,000.00</u>
Sum Total: <u>Twenty seven thousand five hundred</u> Dollars			\$ <u>27,500.00</u>

Statement of plant harvesting equipment proposed to be utilized on Hamburg Lakes: Trucks (model, year, and date of purchase); harvesters (state manufacturer, model, year, depth of cut, width of cut, and date of purchase); conveyers (if any are to be used); and personnel to be used. Also include estimated time each machine requires to harvest one acre.

see attached

Payment in 2023 and 2024 will be made based on the bid unit price.

In the interest of expediting the award of this contract, the undersigned may be required to show that he/she has performed work similar to that included under the proposed contract for which this bid is offered.

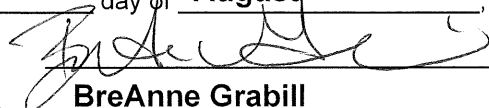
In submitting this bid, it is understood that the right is reserved by the Hamburg Township Board to reject any and all bids and to waive defects in the bids.

Signed this 2nd day of August, 2022.

SIGNATURE

NAME AND TITLE:

(Printed)



BreAnne Grabill

Senior Regional Manager

420 series harvesters



The 420 Series Harvesters are the most efficient machine available for medium sized harvesting projects. The 420s offers exceptional versatility and value, making this model by far the most popular available on the market today.

The 420 Series has a 7' 0" (2,13 m) wide horizontal cutter bar and can cut up to 5' 2" (1,57 m) deep. It can hold up to 450 cubic feet (12,74 cubic meters) of cut vegetation on board, or up to 10,000 lb. (4.535 kg.) by weight.

Standard models include many quality and safety features; numerous options and upgrades are also available.



PO Box 215 | 200 N Harrison Street | North Prairie | Wisconsin | 53153 USA
P 262-392-2162 | T 800-328-6555 | F 262-392-2984
info@aquarius-systems.com | www.aquarius-systems.com

420 SERIES - AQUATIC PLANT HARVESTER

DWG# 214574

SPECIFICATIONS		IMPERIAL	METRIC
DIMENSIONS	Operating Dimensions: L / W / H	38' 6" long / 15' 3" wide / 8' 11" tall	11,73 m long / 4,65 m wide / 2,72 m tall
	Shipping Dimensions: L / W / H	40' 7" long / 10' 0" wide / 9' 7" tall	12,37 m long / 3,05 m wide / 3,0 m tall
	Overall Weight	12,200 lb	5534 kg
FLOTATION	Barge Dimensions: L / W / H	24' 0" long / 10' 0" wide / 28" tall	7,32 m long / 3,05 m wide / 71 cm tall
	Compartments	3 Airtight / watertight compartments	3 Airtight / watertight compartments
	Draft: Empty / Fully Laden	11" Empty / 20" Fully Laden	28 cm Empty / 51 cm Fully Laden
POWER SOURCE	Standard Engine	Diesel	Diesel
	Engine Rating	Minimum 47 HP	Minimum 35,0 kW
	Engine Protection	Low oil & high temperature shutdown	Low oil & high temperature shutdown
	Fuel Tank	18 gallon fix mounted tank	68 liter fix mounted tank
HYDRAULICS	Hydraulic System	Variable volume pressure compensated	Variable volume pressure compensated
	Hydraulic Oil	Clarion 46 - environmentally safe, marine grade	Clarion 46 - environmentally safe, marine grade
	Hydraulic Reservoir Capacity	35 gallons w/ temperature & level gauge	132 liters w/ temperature & level gauge
	Hydraulic System Protection	Relief valves, low oil & clogged filter sensors	Relief valves, low oil & clogged filter sensors
CONTROL BRIDGE	Location	Over storage hold container	Over storage hold container
	Instrumentation & Controls	Valve control levers & foot pedals, gauges, warning lights & alarms	Valve control levers & foot pedals, gauges, warning lights & alarms
	Operator Amenities	Padded vinyl seat, bimini sun/rain canopy	Padded vinyl seat, bimini sun/rain canopy
	Operator Protection	All hydraulic lines/valves enclosed & shielded	All hydraulic lines/valves enclosed & shielded
HARVESTING HEAD	Harvesting Head: Width / Depth	7' wide / 0 to 5' 2" deep	2,13 meters wide / 0 to 1,60 meters deep
	Cutter Knives	Reciprocating 3" stroke, chrome plated	Reciprocating 76 mm stroke, chrome plated
	Impact Protection, Dual	Pre-compressed shocks & pivoting spring suspension	Pre-compressed shocks & pivoting spring suspension
	Conveyor Belting	1" x 1" standard duty galvanized mesh	25 mm x 25 mm standard duty galvanized mesh
STORAGE CONTAINER	Dimensions: Length / Width	29' 6" long / 6' 2" wide	9,0 meters long / 1,88 meters wide
	Capacity: Volume / Weight	450 cubic feet / 10,000 lbs.*	12,74 cubic meters / 4,535 kg*
	Conveyor Belting	1" x 1" standard duty galvanized mesh	25 mm x 25 mm standard duty galvanized mesh
	Discharge Height, from water surface	Up to 5'	Up to 1,52 meters
	Discharge Distance, from barge stern	6' 7"	2,00 meters
PROPULSION	Propulsion System, Size & Location	Twin paddle wheels, 68" x 28", amidships	Twin paddle wheels, 172 x 71 cm, amidships
	Operation & RPM Speed	Independent, forward & reverse, 0 to 48 RPM	Independent, forward & reverse, 0 to 48 RPM
FABRICATION	Hull Material	Carbon steel	Carbon steel
	Frame Material	Carbon steel	Carbon steel
	Fasteners	Stainless steel 18/8 throughout	Stainless steel 18/8 throughout
FINISH	Preparation	Abrasive sandblast, epoxy primer	Abrasive sandblast, epoxy primer
	Paint Type, above the waterline	High quality polyurethane	High quality polyurethane
	Paint Type, below the waterline	High quality marine epoxy	High quality marine epoxy
	Color, Manufacturer's Standard	Light blue	Light blue

*Depending on Final Features and Options

The policy of our company is one of continual improvement and we reserve the right to change specifications without notice.

Aquatic Plant Harvesting



PLM
LAKE & LAND
MANAGEMENT CORP

Certain circumstances call for the use of mechanical harvesting for nuisance aquatic vegetation. In this process, the plants are cut, collected and removed from the lake often providing immediate results. PLM Lake & Land Management Corp. has provided aquatic plant harvesting services for over thirty years. We currently operate three state-of-the-art aquatic plant harvesters operated by experienced staff to meet your harvesting needs.

ADVANTAGES OF HARVESTING

Nearly all aquatic plant species can be harvested, including species that are difficult or impossible to control using herbicides. In most cases a permit is not required, and the results are almost immediate as the plant material is cut and removed from the waterbody. In addition, the removal of plant biomass can also reduce the amount of nutrients in the lake by removing organic material contained within the harvested plants. Removal of excessive aquatic plant density can also benefit water quality and improve habitat for fish and other aquatic organisms.

The harvesting equipment can cut the aquatic vegetation 4-6 feet below the water's surface and collect the cut plant fragments for removal from the lake. A single machine can cut approximately 1 acre per hour, depending upon the location and density of the vegetation. The cut material is then deposited in a predetermined location (farm fields, land fill, etc.).



WHERE IS HARVESTING APPROPRIATE?

Some waterbodies may have limitations imposed on the types of aquatic plant management that can be conducted. In some situations, mechanical harvesting may be the only means of managing nuisance aquatic vegetation. The type and location of the aquatic plants within a lake may also dictate the type of management that can occur. In most cases, it is not advised to harvest certain exotic aquatic plant species, such as Eurasian Watermilfoil, as they are known to spread by fragmentation.

Aside from the types and location of the aquatic plants to be harvested, other criteria must be met in order to initiate a harvesting program. An adequate launch site, a suitable nearby location to dispose of the plant material, appropriate water depths and a minimum of stumps and other obstacles that may interfere with harvesting must all be examined prior to harvesting taking place.



MICHIGAN LOCATIONS

Alto Location
8865 100th St. SE
Alto, MI 49302-9221

Morrice Location
10785 Bennett Dr.
Morrice, MI 48857-8760

Evart Location
9826 S Industrial Drive
Evart, MI 49631

Sturgis Location
1169 N Nottawa St.
Sturgis, MI 49091

Phone (616) 891-1294

Fax (616) 891-0371

Toll-free (800) 382-4434



PLMcorp.net



PLM
LAKE & LAND
MANAGEMENT CORP

STATEMENT OF PLANT HARVESTING EQUIPMENT

Trucks:

<u>Model</u>	<u>Year</u>	<u>Date of Purchase</u>
1. Ford, diesel 1-ton	2012	Spring of 2012
2. Dodge Ram, diesel 1-ton	2020	Spring 2021
3. Ford, diesel 1-ton	2021	Winter 2021

Harvesters:

<u>Model</u>	<u>Year</u>	<u>Depth of Cut</u>	<u>Width of cut</u>	<u>Date of Purchase</u>
1. Aquarius, HM 320	1998	~5 ft	~8 ft	Spring 1998
2. Aquatic Weed Harvester Co, Weed Minder II	2015	~5 ft	~6 ft	Spring 2020
3. Aquarius, HS 420	1990	~5.2 ft	~7 ft	Winter 2021

Conveyers:

The trailers of the machines have a dual purpose, trailering and acting as a conveyer when required. The conveyers and harvesters have hydraulic systems, which use environmentally safe hydraulic oil.

Personnel:

Harvesting operations are overseen by PLM Lake & Land Management staff with decades of aquatic plant management and harvesting experience. Harvesting crews are composed of one to two personnel per machine.

Estimated time to harvest 1 acre of mixed beds (excluding Starry stonewort and/or lily pads):

On average the harvesting machines can cut 1-acre in 45 to 120 mins. Factors such as vegetation densities, weather conditions, water levels, water clarity, floating cut vegetation and location of offloading site will influence total time of harvesting.

Technical Equipment - Michigan



PLM
LAKE & LAND
MANAGEMENT CORP

Boats and Application Equipment: 10 Airboats (16-22 Ft)(2 new 2017 EPA compliant 16'), 6 (19Ft) Carolina Skiffs, 3 (21Ft) Carolina Skiff, 2 (16Ft) Carolina Skiffs, 9 (14Ft) Carolina Skiffs. Equipment is maintained/restored on an as needed basis. 1 -2 new boats/motors are purchased each year.

All boats are equipped with 5Hp pump systems for surface/subsurface (injection) applications of aqueous herbicides. The airboats and larger skiffs are equipped with spreader mounts and electrical connections for granular herbicide applications.

We have 16 boat mount spreaders for granular herbicide applications, such as 2,4-D/Triclopyr, and several backpack and hand-held herbicide sprayers for smaller applications. All boats and equipment older than five years have had upgrades and rebuilding as necessary. Trailers are also MDOT approved on an annual basis.

GPS and Injections Metering Systems: 2 GPS injection-metering systems for liquid application and/or granular products. 10 combination depth/GPS units. 10 Differential mapping Global Positioning (dGPS) receivers

Trucks: 26 4x4 trucks ranging from ½ to 1 ton with enclosed truck beds for on site herbicide storage. Years of trucks range from 2011 thru 2021 (3 new 2021 vehicles). Trucks are MDOT approved on an annual basis.

Spill kits containing supplies to soak up, contain and remove herbicides are in all vehicles. Eyewash safety kits are available on site at all times.

Aquatic Plant Harvesters: 2 Aquarius Harvester & 1 Aquatic Weed harvester, Weed Minder II

Mechanical harvesters use biodegradable hydraulic fluid that is environmentally safe if a spill occurred. Any other spill would be addressed based on the standards set by the Michigan Department of Agriculture.

Land Based Equipment:

- 1 Terra Track vehicle with 50-gallon spray system
- 1 Argo 8x8 amphibious vehicle with 50-gallon spray system
- 2 Honda Rancher 4x4 ATVs with 30-gallon spray systems
- 2 Back of Truck 50-gallon spray systems
- 12 Solo backpack sprayers, 12 Handheld 1/2 to 2-gallon spray units, Wick sticks and swiping mitts
- 2 Stihl chainsaws, 3 Stihl weed whip with brush blade, 1 commercial grade brush hog

Field Survey Equipment:

- 12 Differential mapping Global positioning (dGPS) receivers
- 2 Eagle combination Depth/ Global Positioning (GPS) units
- 3 Hummingbird combination Depth/ Global Positioning (GPS) units
- 10 Lowrance HDS-5 Depth/ Global Positioning (GPS) unit, 4 with side-scan technology
- 4 YSI multiparameter water quality meters
- Water and sediment sampling equipment

Laboratory Equipment: Compound microscopes and wet chemistry laboratory capabilities.

Mapping/CAD capabilities: BioBase, Auto Cad 2000 LT software, ArcMap- GIS, Global Mapper, planimeter.

Safety Equipment: All applicators are equipped with, and required to wear, personal protective equipment, including chemical suits, gloves and goggles. First aid kits and eye wash kits are kept on-site at all times. A minimum of two U.S. Coast Guard approved floatation devices (Kent) and one fire extinguisher is present on each boat.

MSDS Sheets Located in Every PLM Truck: ProcellaCOR, Aqua Pro, Aquathol K, Hydrothol 191, Clipper, Komeen, Komeen Crystal, Nautique, Navitrol, Navitrol OTF, Renovate 3, Renovate OTF, Sculpin G, Tribune, Reward, Habitat, Copper Sulfate, Cutrine Plus-Ultra, Captain- XTR, Alonglife, Cygnet Plus, PLM Blue, Cygnet Select, Poly An.