



500 Genesee Street, Delafield WI 53018

December 20, 2013

Revised February 27, 2014

Wisconsin Department of Natural Resources
Attn. Kathleen Wolski
2300 N. Dr. Martin Luther King Jr. Drive
Milwaukee, WI 53212

Dear Kathleen,

Enclosed please find two copies of the City of Delafield's Waterways Commission Financial Assistance Application for the purchase of weed harvesting equipment. Included in each copy of the application are the following:

1. Form 8700-121
2. Form 8700-014
3. City of Delafield Resolution #2013-14
4. Comprehensive Statement of Feasibility and Project Narrative
5. Approved Aquatic Plant Management Plan Update for Nagawicka Lake including Location Map, Site Plan and Weed Harvesting Management Plan.
6. Pages from the City's 2012 and 2013 Capital Equipment Budgets identifying approved funding for local match.
- 7. Requested Equipment Quote & Specifications**

After reviewing the City's application, I would appreciate it if you would contact me to confirm that the application is complete and let me know the anticipated schedule for consideration of our application.

Thank you!

Sincerely,

CITY OF DELAFIELD

Thomas J. Hafner, P.E.
City Administrator/Director of Public Works

Notice: This form is authorized under s. 30.92, Wis. Stats. You must complete this form in order to apply for or receive financial assistance from the Department of Natural Resources. Failure to complete this form will result in denial of financial assistance. Personally identifiable information on this form is not intended to be used for any other purpose.

1. Complete the suggested resolution on the reverse side, or submit a resolution conforming to the appropriate section of ch. NR 7, Wis. Adm. Code.
2. Submit 2 copies of all forms and attachments. See reverse side for necessary attachments.
3. Mail application to the appropriate DNR regional office (address on page 2).

Date Prepared	11/18/13	Rev	2/27/14
Leave Blank - DNR Use Only			
Received	Project Number		
Acknowledged			

Type of Project

- Feasibility Study
 Development Project
 Channel Dredging
 Aids to Navigation and Regulatory Markers
 Weed Harvesting Equipment
 EWM Treatment
 Trash Skimmer

Applicant Information

Applicant/Organization Name	Check Recipient: Individual <u>other</u> than authorized individual to act on behalf of the applicant. Provide check recipient information below:
City of Delafield	
Authorized Individual Name	Check Recipient Name: (Name to Appear on Check)
Thomas J. Hafner <i>City Administrator / Director of Public Works</i>	City of Delafield, c/o Marie Williams
Address	Address
500 Genesee Street	500 Genesee Street
City, State, ZIP Code	City, State, ZIP Code
Delafield, WI 53005	Delafield, WI 53005
Telephone Number	E-Mail Address
(262) 303-4626	MWilliams@ci.delafield.wi.us

Project Information

Project Title
 Weed Harvesting Equipment Purchase

For a feasibility study, development or channel dredging project, list proposed work items with schedule for completion.

Summarize number and type of navigational or regulatory markers.

List the pieces of weed harvesting equipment, and specify how they are to be utilized and maintained.

Transport Barge & Shore Conveyor. *To be utilized and maintained by City Public Works Staff.*

Required Attachments

- Proof of project's feasibility for development or channel dredging projects.
- Plans for the development of launching ramps that indicate percentage slope of the ramp and the width of the existing or proposed boarding dock.
- List all sources of sponsor match. Note other sources of any donation or in-kind costs. *City Budgeted Funds*

	Estimated Costs	Leave Blank - DNR Use Only	
		Eligible Costs	
State Share	\$ 83,837.50	State Share	
Applicant's Share	\$ 83,837.50	Applicant's Share	
Total	\$ 167,675.00	Total	

Check here if the applicant conducts a boating safety enforcement and education program approved by the Department.

Check here if applicant is requesting cost sharing under NR 7.088, projects of regional or statewide significance.

List any other state or federal aid, grant or loan program that have been, are, or may be involved in this project. If none, check here

As the applicant's authorized official, I certify that to the best of my knowledge, the information in this application is true and correct.

Typed Name of Authorized Official	Signature of Authorized Official
Thomas J. Hafner	<i>Thomas J. Hafner</i>

Waterways Application Attachments

Feasibility Study:

- A. Governmental unit or qualified lake association resolution authorizing participation (sample below).
B. List of tasks to be accomplished and the cost of each. Tasks should be arranged under the following headings:
1. Economic Analysis; 2. Environmental Analysis; 3. Engineering Analysis.

Development:

- A. Governmental unit or qualified lake association resolution requesting financial assistance and authorizing participation (sample below).
B. Statement of feasibility of the project covering economic, environmental and engineering aspects.
C. Cost estimate worksheet (Form 8700-14).
D. Preliminary site plans.
E. Construction plans of structures to be built.
F. Copy of permit.

Channel Dredging:

- A. Governmental unit or qualified lake association resolution requesting financial assistance and authorizing participation (sample below).
B. Statement of feasibility of the project covering economic, environmental and engineering aspects.
C. Cost estimate worksheet (Form 8700-14).
D. Preliminary engineering plans.
E. Copy of permit (if applicable).

Navigational or Regulatory Markers:

Copy of waterway placement permit indicating buoys or markers requested.

Weed Harvesting Equipment:

- A. Copy of approved weed harvesting management plan.
B. Cost estimate worksheet (form 8700-14).
C. Governmental unit or qualified lake association resolution requesting financial assistance and authorizing participation (sample below).

Chemical Treatment of Eurasian Water Milfoil (EWM):

Copy of chemical treatment permit.

Trash Skimmer: Cost Estimate Worksheet (form 8700-014)

Sample Resolution

WHEREAS, _____ hereby requests assistance for purpose of [] performing a feasibility study for [] developing recreational boating facilities [] acquiring weed harvesting equipment [] dredging a channel for recreation boating [] acquiring aids to navigation or regulatory markers as described in the application [] acquiring trash skimming equipment [] chemical treatment for EWM

THEREFORE, BE IT RESOLVED, that _____ has budgeted a sum sufficient to complete the study, project, or acquisition and HEREBY AUTHORIZES _____, _____, to act on behalf of _____ to:

- Submit an application to the Wisconsin Waterways Commission for financial assistance;
Sign documents; and
Take necessary action to undertake, direct and complete the approved project.

BE IT FURTHER RESOLVED that _____ will comply with state and federal rules for the programs; may perform force account work; will maintain the completed project in an attractive, inviting and safe manner; will keep the facilities open to the general public during reasonable hours consistent with the type of facility; and will obtain approval in writing from the Wisconsin Waterways Commission before any change is made in the use of the project site (if applicable).

Adopted this _____ day of _____, 20____.

I hereby certify that the foregoing resolution was duly adopted by _____ at a legal meeting on the _____ day of _____, 20____.

Authorized Signature _____
Title _____

Department of Natural Resources Regional Offices

Northern Region

810 Maple Street
Spooner, WI 54801
(715) 635-4159

Northeast Region

2984 Shawano Avenue
PO Box 10448
Green Bay, WI 54307-0448
(920) 662-5121

South Central Region

3911 Fish Hatchery Road
Fitchburg, WI 53711
(608) 275-3265

OR

107 Sutliff
Rhineland, WI 54501
(715) 365-8928

Southeast Region

2300 N. Dr. Martin Luther King Jr. Drive
Milwaukee, WI 53212
(414) 263-8610

West Central Region

1300 W. Clairemont Avenue
Eau Claire, WI 54702
(715) 839-3713

RESOLUTION 2013-14

RESOLUTION BY THE CITY OF DELAFIELD COMMON COUNCIL, WAUKESHA COUNTY,
REQUESTING WISCONSIN WATERWAYS COMMISSION FINANCIAL ASSISTANCE FOR THE
PURPOSE OF ACQUIRING WEED HARVESTING EQUIPMENT

WHEREAS, the City of Delafield hereby requests financial assistance for the purpose of acquiring weed harvesting equipment; and

THEREFORE, BE IT RESOLVED, that the City of Delafield has budgeted a sum sufficient to complete the acquisition and

HEREBY AUTHORIZES Thomas J. Hafner, City Administrator/Director of Public Works to act on behalf of the City of Delafield to:

- Submit an application to the Wisconsin Waterways Commission for financial assistance;
- Sign Documents; and
- Take necessary action to undertake, direct and complete the approved project.

BE IT FURTHER RESOLVED that the City of Delafield will comply with state and federal rules for the programs; may perform force account work; will maintain the completed project in an attractive, inviting and safe manner; will keep the facilities open to the general public during reasonable hours consistent with the type of facility; and will obtain approval in writing from the Wisconsin Waterways Commission before any change is made in the use of the project site (if applicable).

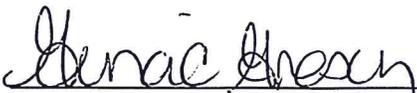
Adopted this 2nd day of December, 2013.

CITY OF DELAFIELD



Ed McAleer, Mayor

ATTEST:



Gina C. Gresch, MMC/ WCPC
City of Delafield Clerk-Treasurer
Waukesha County





500 Genesee Street, Delafield WI 53018

**Wisconsin Waterways Commission Financial Assistance Application
Comprehensive Statement of Feasibility and Project Narrative
Location Map, Site Plan and Harvesting Plan**

The City of Delafield is submitting a Waterways Commission Financial Assistance Application for the purchase of equipment to perform weed harvesting on Nagawicka Lake. Nagawicka Lake, located within Waukesha County, Wisconsin, is a valuable natural resource offering a variety of recreational and related opportunities to the resident community as well as visitors from all across the metro-Milwaukee area and beyond. A Location Map of Nagawicka Lake is provided as Map 1 in the attached Aquatic Plant Management Plan (APMP) Update. The Lake is an integral part of "Lake Country." It is a very popular recreational lake and attracts a very high volume of boat traffic throughout the summer months. It is a popular lake for fishing, water skiing, sailing, canoeing, kayaking, jet skiing, tubing, swimming and pleasure cruising.

Nagawicka Lake is a 981-acre waterbody. The Lake is a throughflow lake with a single deep basin. The waterbody has a maximum depth of approximately 90 feet and a mean depth of approximately 36 feet. A Site Plan identifying the Aquatic Plant Community Distribution in Nagawicka Lake is provided as Map 3 in the attached APMP Update.

There are two primary public boat launches on Nagawicka Lake. The City owns and maintains the Bleeker Street Boat Launch on the south end of the Lake. Waukesha County owns and maintains the Nagawaukee Park Beach and Boat Launch on the eastern shore of the lake. These two launches provide excellent accessibility to Nagawicka Lake for the general boating public. There are also various other City lands and right-of-ways such as Graham Street, which provide public access to Nagawicka Lake for canoeing, kayaking and ice fishing. Between the City's Lois Jensen Nature Preserve and State owned land, public access is also provided at the northern end of the Kettle.

Weed harvesting has been an integral part of the City's APMP for many decades. The most recent update to the City's APMP is dated June 15, 2012 and was performed by the Southeastern Wisconsin Regional Planning Commission (SEWRPC). The City's current approved weed harvesting management plan is included as an integral part of the June 15, 2012 APMP update. Two copies of the APMP update are included as required with this application. The approved weed harvesting management plan can be found on pages 13-18 of the APMP update.

The City performs harvesting on approximately 60 acres of Nagawicka Lake. This area primarily includes the area where the Bark River feeds into the Lake, the various channels around the lake, the access channels in and out of St. John's Bay and the Kettle, and various other areas adjacent to shore. The channels are particularly popular with boaters that prefer pleasure cruising. Weed harvesting is performed on Nagawicka Lake to promote a quality water-based experience for residents and visitors. It is required to effectively control the quantity and density of aquatic plant growths in portions of Nagawicka Lake. Weed harvesting is used to maintain watercraft access and navigability in these portions of the lake in order to improve water-related recreation opportunities. Weed harvesting has also been particularly effective with controlling invasive aquatic plants that threaten watercraft access and navigability.

On Nagawicka this primarily includes Eurasian Water Milfoil and Curly-Leaf Pondweed. From 2004 to 2011 the density of Eurasian Water Milfoil has decreased from "Present" to "Scarce" due largely to the City's successful harvesting program.

A 3-person crew of City Public Works employees performs the harvesting full-time, Monday through Friday, typically beginning in late May and continuing through mid-September. The City operates one harvester, one transport barge and a shore conveyor to perform the weed harvesting operations.

The City is in need of a new transport barge and shore conveyor. Both pieces of equipment were purchased in 2001 and have been used for 13 years. The equipment has lasted beyond its expected useful life of ten years and has now become unreliable and expensive to maintain and repair. Numerous expensive repairs over the last few years have not only resulted in significant financial cost but also a significant lost production cost while the equipment is out of service being repaired.

The City has received a price quote of \$136,675 for an Aquarius T-12 Transport Barge and a price quote of \$31,000 for an Aquarius S/C-23 Shore Conveyor. The combined cost of the two pieces of equipment is \$167,675. The City is requesting 50% funding in the amount of \$83,837.50 and has already budgeted and borrowed adequate funds for the required local match in its 2012-2013 Capital Equipment Budgets. Copies of these budgets with the harvesting equipment line items highlighted are attached.

CITY OF DELAFIELD
CAPITAL IMPROVEMENTS PROGRAM: 2012 - 2016

	Acct #	Amount	2012		2013	2014	2015	2016	
			Funding Source	Non-Gen. Fund					Gen. Fund/Bond
Genesee Street Project - North End (resurfacing, bypass lane at Exeter, sidewalk, signage, bridge work, drainage improvements, lighting, landscaping and other items)									
Design	410-70-57310.		General Fund/Bond			\$28,000			
	410-70-57310.		Waukesha County			\$72,000			
Land Acquisition	410-70-57310.		General Fund/Bond						
	410-70-57310.		Waukesha County			\$88,000			
Construction	410-70-57310.		General Fund/Bond					\$476,000	
	410-70-57310.		Waukesha County					\$1,224,000	
Street Signs									
Federal-mandated Retroreflectivity Compliance	410-70-57310.	\$ 5,000	General Fund/Bond (100%)		\$ 5,000				
Annual Sign Replacement Program	410-70-57310.	\$ 8,000	General Fund/Bond (100%)		\$ 8,000	\$8,000	\$8,000	\$8,000	
PUBLIC WORKS CAPITAL EQUIPMENT									
Replace #110 - Chevy 2500 Series Pick-up	410-70-57311.	\$ 32,000	General Fund/Bond (90%)		\$ 28,800				
	600-70-57104.		Water Utility (10%)	\$ 3,200					
Lake Weed - Transport Barge	410-70-57311.	\$ 138,675	General Fund/Bond		\$ 69,338				
	410-70-57311.		RBF Grant	\$ 69,338					
Lake Weed - Conveyor	410-70-57311.		General Fund/Bond		\$24,500				
	410-70-57311.		RBF Grant		\$24,500				
Replace Truck #113 - Ford F-550 4x4 1-Ton Dump Truck w/ Plow	410-70-57311.		General Fund/Bond (100%)		\$80,000				
Replace Truck #104 - Ford L-8000 Dump Truck w/ Plow & Wing	410-70-57311.		General Fund/Bond (100%)		\$130,000				
John Deere #325 Lawn Tractor Mower & Blower	410-70-57311.		General Fund/Bond (100%)			\$9,000			
Replace 18' Tandem Axle Trailer	410-70-57311.		General Fund/Bond (100%)			\$3,500			
12' Enclosed Cargo Trailer - Confined Space Entry	600-70-57104.		Water Utility (5%)				\$200		
	602-70-57000.		Sewer Utility (95%)				\$3,800		
Replace Truck #102 - Sterling Dump truck w/ Plow & Wing	410-70-57311.		General Fund/Bond (100%)				\$130,000		
Replace Truck #109 - Ford F-450 4x4 Sewer Utility Truck w/ Crane	602-70-57000.		Sewer Utility (100%)				\$65,000		
#4500 Ferris Zero-Turn Mower	410-70-57311.		General Fund/Bond (100%)					\$16,000	
10' Hydraulic Broom Attachment	410-70-57311.		General Fund/Bond (100%)					\$12,000	
#621 Case Articulating Front End Loader	410-70-57311.		General Fund/Bond (100%)					\$125,000	
H-420 Lake Weed Harvester	410-70-57311.		General Fund/Bond					\$70,000	
	410-70-57311.		RBF Grant					\$70,000	
Lake Weed Equipment Tri-Axle Trailer	410-70-57311.		General Fund/Bond (100%)					\$12,000	
PUBLIC SAFETY OUTLAY									
Trunked Radio Infrastructure Fee	410-70-57200.	\$ 7,321	General Fund/Bond (100%)		\$ 7,321				
LCFD - Ambulance Remount on New Chasis	410-70-57220.	\$ 80,670	General Fund/Bond (74.12%)		\$ 59,793				
	410-70-57220.		Chenequa/Nashotah Contribution (25.88%)	\$ 20,877					
Total Cost of Capital Improvements Program		\$ 838,716		\$ 93,415	\$ 745,301	\$1,423,000	\$1,147,400	\$2,891,000	\$2,708,000

CITY OF DELAFIELD
CAPITAL IMPROVEMENTS PROGRAM: 2013 - 2017

			2013						
	Account #	Amount	Funding Source	Non-Gen. Fund	Gen. Fund/Bond	2014	2015	2016	2017
PUBLIC WORKS CAPITAL EQUIPMENT									
Commercial Walk Behind/Standup Mower for Cemetery	410-70-57311.	\$ 7,000	General Fund/Bond (100%)		\$ 7,000				
Leaf Vac Replacement	410-70-57311.	\$ 2,500	General Fund/Bond (50%)		\$ 2,500				
	610-70-57000.	\$ 2,500	Storm Water Utility #1 (50%)	\$ 2,500					
Lake Weed - Conveyor	410-70-57311.	\$ 49,000	General Fund/Bond (50%)		\$ 24,500				
	410-70-57311.		RBF Grant (50%)	\$ 24,500					
Additional Trailer Mounted Generator for Emergency Power at Sewer Lift Stations	602-70-57000.	\$ 24,000	Sewer Utility (100%)	\$ 24,000					
Replace Patrol Truck #104 - Ford L-8000 Dump Truck w/ Plow, Wing, Sander & Pre-Wet System	410-70-57311.	\$ 150,000	General Fund/Bond (100%)		\$ 150,000				
Public Works Dept. - County-Wide Radio System Replacement			General Fund/Bond (33.3%)			\$38,500			
			Water Utility (19.1%)			\$22,000			
			Sewer Utility (43.1%)			\$44,000			
			Storm Water Utility (4.5%)			\$5,500			
Replace Truck #113 - Ford F-550 4x4 1-Ton Dump Truck w/ Plow	410-70-57311.		General Fund/Bond (100%)			\$80,000			
Replace Patrol Truck #102 - Sterling Dump Truck w/ Plow, Wing, Sander & Pre-Wet System	410-70-57311.		General Fund/Bond (100%)				\$150,000		
Replace Truck #109 - Ford F-450 4x4 Water Utility Truck w/ Crane	600-70-57104.		Water Utility (85%)				\$55,250		
	602-70-57000.		Sewer Utility (15%)				\$9,750		
#621 Case Articulating Front End Loader	410-70-57311.		General Fund/Bond (100%)					\$125,000	
Aquarius H-420 Lake Weed Harvester	410-70-57311.		General Fund/Bond (50%)					\$70,000	
			RBF Grant (50%)					\$70,000	
Lake Weed Equipment Tri-Axle Trailer	410-70-57311.		General Fund/Bond (50%)					\$6,000	
			RBF Grant (50%)					\$6,000	
#5100 - Ferris Zero-Turn Lawn Mower	410-70-57311.		General Fund/Bond (90%)						\$14,400
	600-70-57104.		Water Utility (10%)						\$1,600
Replace Patrol Truck #103 - Sterling Dump Truck w/ Plow, Wing, Sander & Pre-Wet System	410-70-57311.		General Fund/Bond (100%)						\$150,000
#108 - Ford F-450 4x4 Sewer Utility Truck w/ Crane	602-70-57000.		Sewer Utility (100%)						\$65,000
Kubota B3030 w/ Attachments	410-70-57311.		General Fund/Bond (100%)						\$32,500
Kawasaki Mule	410-70-57311.		General Fund/Bond (100%)						\$10,000

**CITY OF DELAFIELD
PROPOSAL PROVISIONS**

Hereafter "Company" shall refer to Aquarius Systems; "Buyer" shall refer to the City of Delafield.

EQUIPMENT: Aquarius Systems will furnish the equipment as stated above. Any equipment the Buyer wishes to exclude from this Contract should be indicated by strikeout (~~example~~) and initialed by at least one of the Contract endorsers.

OPTIONS: Aquarius Systems will furnish only the options as stated above. Any options the Buyer wishes to exclude from this Contract should be indicated by strikeout (~~example~~) and initialed by at least one of the Contract endorsers. If a desired option has been omitted, please notify Aquarius Systems immediately and a new contract will be issued.

WARRANTY: Aquarius Systems will provide a one (1) year warranty on the equipment, and a two year manufacturer's warranty on engine.

DELIVERY: The equipment shall be prepared to ship from Company factory 18 to 24 weeks after receipt of order, including signed Purchase Contract and down payment. Prices quoted are F.O.B. factory, North Prairie, Wisconsin, USA. A freight quote may be included as a separate line item on the Contract. NOTE: A crane may be required to unload the equipment upon delivery; Buyer is responsible for all arrangements and costs associated with the crane rental.

The Company shall not be liable for delay or default in the performance of its obligations under this agreement if such delay or default is caused by conditions beyond its reasonable control, including but not limited to Force Majeure, fire, flood, accident, storm, acts of war, riot, government interference, strikes and/or walkouts. In the event of any such delay, the delivery date shall be extended for a period equal to the time lost by reason of the delay. Delay in delivery for any other cause shall in no event subject the Company to any special or consequential damages.

PAYMENT TERMS: A down payment of thirty-five percent (35%) of the total purchase price is due with the signed Purchase Contract. Balance is due in full upon delivery of the equipment. Taxes are not reflected in these prices and are the full responsibility of the Buyer. Interest will be charged at a rate of 1.5% per month on any unpaid balance commencing on the first day after payment is due, in addition to a service fee of \$75.00 per month, until payment is received in full.

DRAWINGS: Any and all drawings, (including but not limited to general layout, arrangement or system drawings), furnished by the Company shall remain the property of the Company and are not to be used, copied or reproduced for any purpose without the Company's prior written authorization.

CHANGES: The Company may, but shall not be obligated to, incorporate in the equipment such changes in design, construction or arrangement as shall, in its judgment, constitute an improvement over former practice. If any of the materials of construction specified or contemplated herein are not readily procurable for their intended purpose, the Company shall have the right to substitute other material suitable for the work.

STORAGE: If the Buyer asks the Company to hold or warehouse equipment purchased under this Contract for any length of time after the date on which the equipment is prepared for shipment, the Company may, but shall not be obligated to store the same, and the Buyer shall pay storage charges at a rate determined by the Company at the time of the request commencing from and after what was to have been the shipment date. If shipment is so deferred, full payment for the equipment shall become due and payable when the Buyer is notified by the Company, by invoice or otherwise, that the equipment is ready for shipment.

<i>Contract Number</i>	<i>020314.01</i>
<i>Company's Initials</i>	<i>Jmdd</i>
<i>Page Number</i>	<i>2 of 3</i>

SECURITY AGREEMENT: Without relieving the Buyer from the obligation to make payment as provided for, the Buyer grants to the Company a security interest in the equipment described herein for the purpose of securing full payment of its purchase price and any other sums the Buyer shall become obligated to pay hereunder. The Buyer agrees to perform all acts, which may be necessary to perfect and preserve such security interest in the Company. The Buyer further agrees that, until such security interest is terminated, it shall not sell, lease or otherwise dispose of the equipment or in any way impair its value. The Buyer shall also keep the equipment free from all liens, encumbrances and other security interests and shall defend it against all claims by other persons other than the Company until such termination. In case of failure by the Buyer to make any payment when due, the Company may, at its option, take exclusive possession of the Collateral wherever found and remove the same without legal process. The remedy provided hereunder is in addition to all rights and remedies available to the Company at law or in equity.

DISPUTES: The Statutes, Laws and Courts of the State of Wisconsin shall govern the resolution of any and all disputes of any nature whatsoever that may arise in the execution and fulfillment of this Contract.

CANCELLATION: The Buyer may cancel an order only upon written notice to the Company. In the event of such cancellation the Company shall be immediately entitled to receive from the Buyer, as liquidation damages and not as a penalty, the cost of the equipment produced and services performed by the Company up to the date of cancellation, plus a markup of fifteen percent (15%) of such costs. Any money paid as a down payment shall be credited toward this total; any amount exceeding the down payment shall be invoiced to the Buyer and shall be due in full immediately upon receipt.

SEVERABILITY: The unenforceability or invalidity of any of the paragraphs of this contract shall not affect the validity or enforceability of the remaining paragraphs of this contract, but such remaining paragraphs shall be interpreted and construed in such a manner as to carry out fully the intention of the parties.

EXPIRATION: This Proposal is valid for four (4) months from the date signed by an authorized representative of Aquarius Systems, a Division of D&D Products Incorporated. This Proposal will expire on June 15, 2014.

OFFERED TO THE CITY OF DELAFIELD ON BEHALF OF AQUARIUS SYSTEMS:

Signature: Jane Dauffenbach

Date: February 4, 2014

Title: President

Contract Number	020314.01
Company's Initials	Jmdd
Page Number	3 of 3

transport barges



Transport Barges are used on larger waterways to shuttle weed loads to shore, increasing the efficiency of a harvesting program by up to ninety percent. Equipped with high speed hulls and a choice of propulsion systems, Transport Barges optimize the material handling process. Weed loads are conveyed from the harvester into the shuttle barge, freeing the cutter to immediately resume work while the Transport ferries the vegetation to shore.



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

transport barges

PROPULSION SYSTEMS

Twin Hydraulic Propellers

The most popular propulsion choice by far is the diesel powered twin hydraulic propeller system. The hydraulic propellers offer considerable advantages over other propulsion systems. Capable of speeds from 5 to 7 MPH (8 to 11 KPH), the benefits of the hydraulic props are realized in the cost effectiveness and longevity of this system.



Volvo Penta Inboard / Outboard Engines

The newest and fastest propulsion system offered is the inboard/outboard powered by a Volvo Penta engine. Also the most costly system, the I/O allows the Transport to travel at speeds up to 15 MPH (24 KPH).



Outboard Engines

Four-stroke 90 horsepower (67 kW) outboard engines are also available. Outboards propel the Transport at speeds of 5 to 7 MPH (8 to 11 KPH). While initially less expensive than the other options, outboards are subject to more maintenance and typically need to be replaced every 3 to 5 years.



Dual Paddle Wheels

Dual paddle wheels are an option that is usually reserved for waterways with special conditions. While useful in extremely weedy situations, the paddle wheels are the slowest of the propulsion systems offered, providing speeds up to 3 MPH (5 KPH).



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transport barges



Standard Transport Barges have an elevated control tower mounted at the stern (above). Transports are also available in a low profile configuration (below right), which allows the shuttle barge to easily pass beneath low clearance obstacles such as bridges.



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P 262-392-2162 | T 800-328-6555 | F 262-392-2984
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transport barges



The photo sequence above provides the operator's viewpoint as the Transport Barge receives a load from the harvester, transits to the shore-based off-loading conveyor and discharges the load up into a dump truck.



All Transport Barges feature a hydraulically adjustable hitching device that makes them universally compatible with any sized harvester, big or small.

A custom "vee" bow enhances speed.



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P 262-392-2162 | T 800-328-6555 | F 262-392-2984
info@aquarius-systems.com | www.aquarius-systems.com

T-12 TRANSPORT BARGE

SPECIFICATIONS		IMPERIAL	METRIC
DIMENSIONS	Operating Dimensions: L / W / H	29' 10" long / 10' 2" wide / 10' 6" tall	9,02 m long / 3,10 m wide / 3,20 m tall
	Shipping Dimensions: L / W / H	29' 10" long / 10' 2" wide / 10' 6" tall	9,02 m long / 3,10 m wide / 3,20 m tall
	Overall Weight	9500 lb	4082 kg
FLOTATION	Barge Dimensions: L / W / H	27' 0" long / 10' 2" wide / 30" tall	8,23 m long / 3,10 m wide / 76 cm tall
	Compartments	3 Airtight / watertight compartments	3 Airtight / watertight compartments
	Draft: Empty / Fully Laden	9" Empty / 21" Fully Laden	23 cm Empty / 53 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	21 gallon fix mounted tank	79 liter fix mounted tank
HYDRAULICS	Hydraulic System	Variable displacement & fixed gear pumps	Variable displacement & fixed gear pumps
	Hydraulic Oil	Clarion 46 - environmentally safe, marine grade	Clarion 46 - environmentally safe, marine grade
	Hydraulic Reservoir Capacity	30 gallons with temperature & level gauge	114 liters with temperature & level gauge
	Hydraulic System Protection	Relief valves, low oil & clogged filter sensors	Relief valves, low oil & clogged filter sensors
CONTROL BRIDGE	Location	Stern mounted, over the power pack	Stern mounted, over the power pack
	Instrumentation & Controls	Levers, gauges, warning lights & alarms	Levers, 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
STORAGE CONTAINER	Dimensions: Length / Width	27' 9" long / 6' 2" wide	8,46 meters long / 1,88 meters wide
	Capacity: Volume / Weight	650 cubic feet / 12,000 lb	18,4 cubic meters / 5443 kg
	Conveyor Belting	1" x 1" standard duty galvanized mesh	25 mm x 25 mm standard duty galvanized mesh
	Discharge Height, from water surface	0 to 5'	0 to 1,52 meters
PROPULSION	Propulsion System & Location	Twin hydraulic propellers, stern mounted	Twin hydraulic propellers, stern mounted
	Operation	Independent, forward & reverse	Independent, forward & reverse
	Vessel Speed, transiting	up to 6 MPH	up to 9,66 KPH
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
COMPATIBILITY	Harvesters	HM-220, HM-320, HM-420	HM-220, HM-320, HM-420
	Trash Hunters	TH-12, TH-23	TH-12, TH-23
	Shore Conveyors	SC-23, MSC-23	SC-23, MSC-23
	Trailers	TR-23, TRC-23, TTR-23	TR-23, TRC-23, TTR-23

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

shore conveyors



Shore Conveyors are deployed at the waters edge and serve the harvesters, transport barges and trash skimmers as an unloading link between land and water.

Standard Shore Conveyors are equipped with hydraulic quick disconnect hoses to draw power from the harvester, transport or trash skimmer as it unloads. As an alternative, Shore Conveyors can be self-powered via a gasoline or diesel power pack. An optional vandal proof enclosure is available to secure the engine and hydraulics.

Shore Conveyors are easily pulled by a full sized pickup truck, and feature integrated D.O.T. compliant lighting, a heavy duty towing hitch and safety chains, wheel fenders and chocks, manual height adjustment and a removable auxiliary positioning hitch.



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shore conveyors



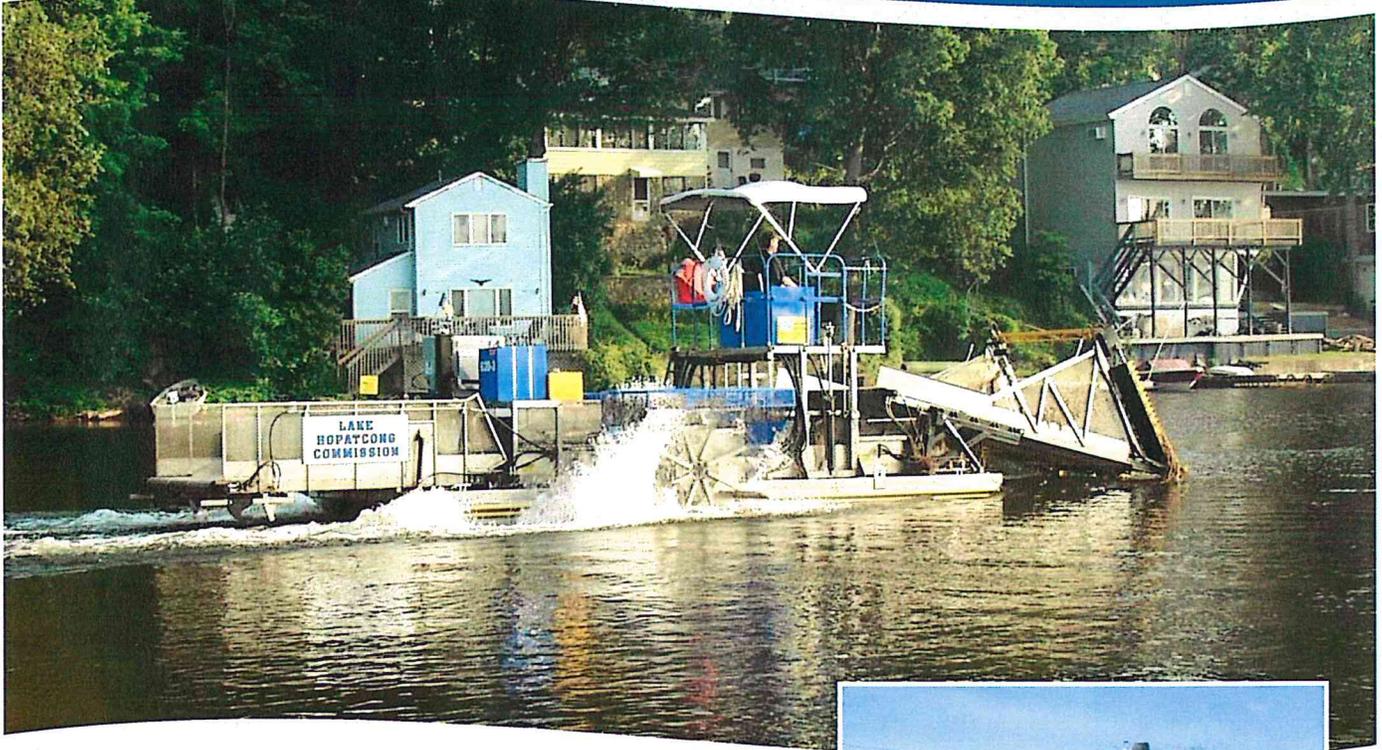
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SHORE CONVEYORS

SPECIFICATIONS		IMPERIAL			METRIC		
		SC-12	SC-23	SC-34	SC-12	SC-23	SC-34
DIMENSIONS	Overall Length	33' 0"	33' 0"	36' 5"	10,06 meters	10,06 meters	11,10 meters
	Flared Intake Hopper Width	7' 0"	9' 0"	11' 0"	2,13 meters	2,74 meters	3,35 meters
	Maximum Height	10' 6"	10' 6"	12' 2"	3,20 meters	3,20 meters	3,71 meters
	Overall Weight	3200 lb	3807 lb	4200 lb	1450 kg	1727 kg	1905 kg
CONVEYOR BED	Conveyor Bed Length	28' 0"	28' 0"	32' 0"	8,53 meters	8,53 meters	9,75 meters
	Conveyor Bed Width	3' 0"	4' 0"	5' 0"	0,91 meters	1,22 meters	1,52 meters
	Conveyor Bed Sidewall Height	14"	14"	14"	36 cm	36 cm	36 cm
	Conveyor Method	Drag angle style conveyor			Drag angle style		
HYDRAULICS	Hydraulic System	Powered via hydraulic quick disconnect hoses			Powered via hydraulic quick disconnect hoses		
	Hydraulic Oil	Clarion 46 - environmentally safe, marine grade			Clarion 46 - environmentally safe, marine grade		
	Conveyor Drive Motors	2	2	2	2	2	2
DETAILS	Electrical System	12 volt via towing vehicle, 6 prong adapter			12 volt via towing vehicle, 6 prong adapter		
	Integrated Lighting	Electric brake lights & turn signals with 6 prong adapter			Electric brake lights & turn signals with 6 prong adapter		
	Winch	Manual	Manual	Manual	Manual	Manual	Manual
	Hitch, with Safety Chains	2" pintle ring	2" pintle ring	2" pintle ring	5 cm pintle ring	5 cm pintle ring	5 cm pintle ring
	Jack Stand Capacity	5000 lb	5000 lb	5000 lb	2268 kg	2268 kg	2268 kg
	Other	Wheel fenders & wheel chocks			Wheel fenders & wheel chocks		
FABRICATION	Material	Carbon steel			Carbon steel		
	Fasteners	Stainless steel 18/8			Stainless steel 18/8		
FINISH	Preparation	Abrasive sandblast, epoxy primer			Abrasive sandblast, epoxy primer		
	Paint Type	High quality urethane			High quality urethane		
	Color, Manufacturer's Standard	Light blue	Light blue	Light blue	Light blue	Light blue	Light blue
COMPATIBILITY	Harvesters	EH-220, HM-220	EH-220, HM-220, HM-320, HM-420	All Harvesters	EH-220, HM-220	EH-220, HM-220, HM-320, HM-420	All Harvesters
	Mini Skimmer - Harvesters	EH-120, FB-12, FB-150	n/a	n/a	EH-120, FB-12, FB-150	n/a	n/a
	Trash Hunters	TH-12	TH-12, TH-23	All Trash Hunters	TH-12	TH-12, TH-23	All Trash Hunters
	Transport Barges	n/a	T-12	All Transports	n/a	T-12	All Transports

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option - stainless steel configurations



All standard equipment is manufactured in a carbon steel configuration (*inset photo at right*), and then finished with a high quality marine paint coating.

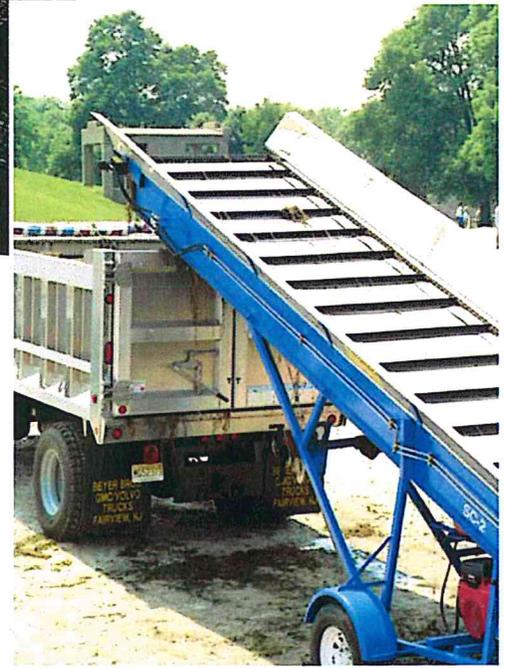
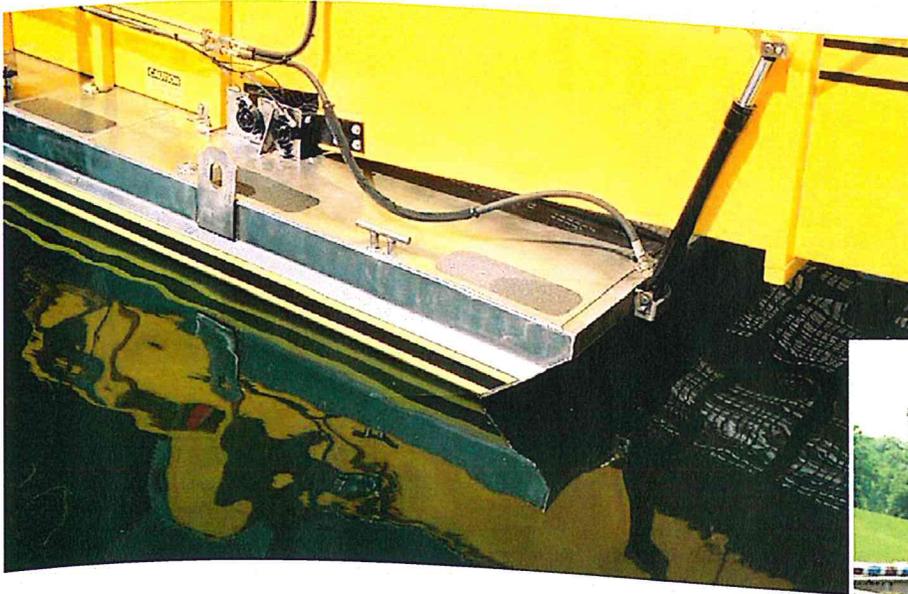
As an option, all equipment is also available in a variety of stainless steel configurations. Upgrading to stainless can greatly reduce the cost and time spent on maintenance.

For fresh water situations 304L grade stainless is usually recommended. For brackish water or salt water however, 316L stainless steel is needed. Equipment can be constructed entirely out of stainless steel (*photo above*). Due to the harsh effects of salinity on carbon steel, all equipment intended for use in a brackish water or salt water application should be built entirely of 316L stainless steel.



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option - stainless steel configurations



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option - spud anchors



Optional spud anchors are available on all equipment, as shown on the large model transport barge (above) and harvester (at right).

Typically mounted in pairs, spud anchors help to securely hold the machine in place while working, docked or when not in use.



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option - cabs & pilot houses



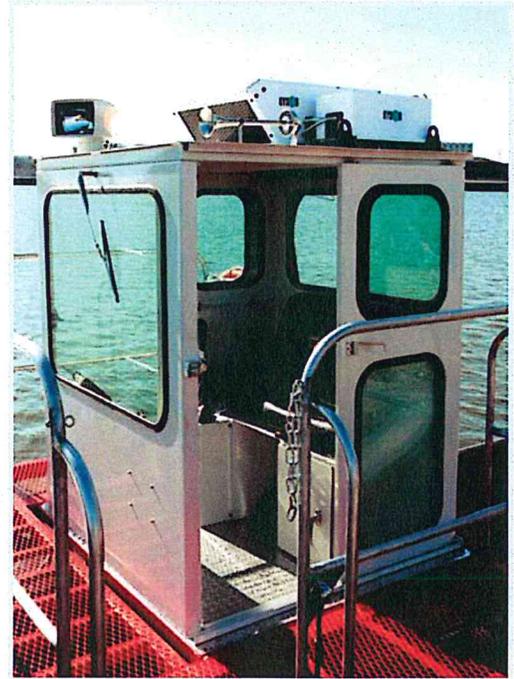
Larger sized harvesters and Trash Hunters are available with optional operator cabs and pilot houses. These aluminum cabs provide comfort and safety for the operator, and protection from the elements.

Cabs can be equipped with one (1) or two (2) doors, tinted safety glass, a windshield wiper with wash kit and electric fan. Other amenities offered include 100,000 candlepower spotlights, amber strobe lights, heating, air conditioning, marine air horns, twin (“buddy”) seats, am/fm radio with CD player, VHF radios, marine hailers, global positioning systems (GPS), depth finders, retractable mastheads and many other custom options.



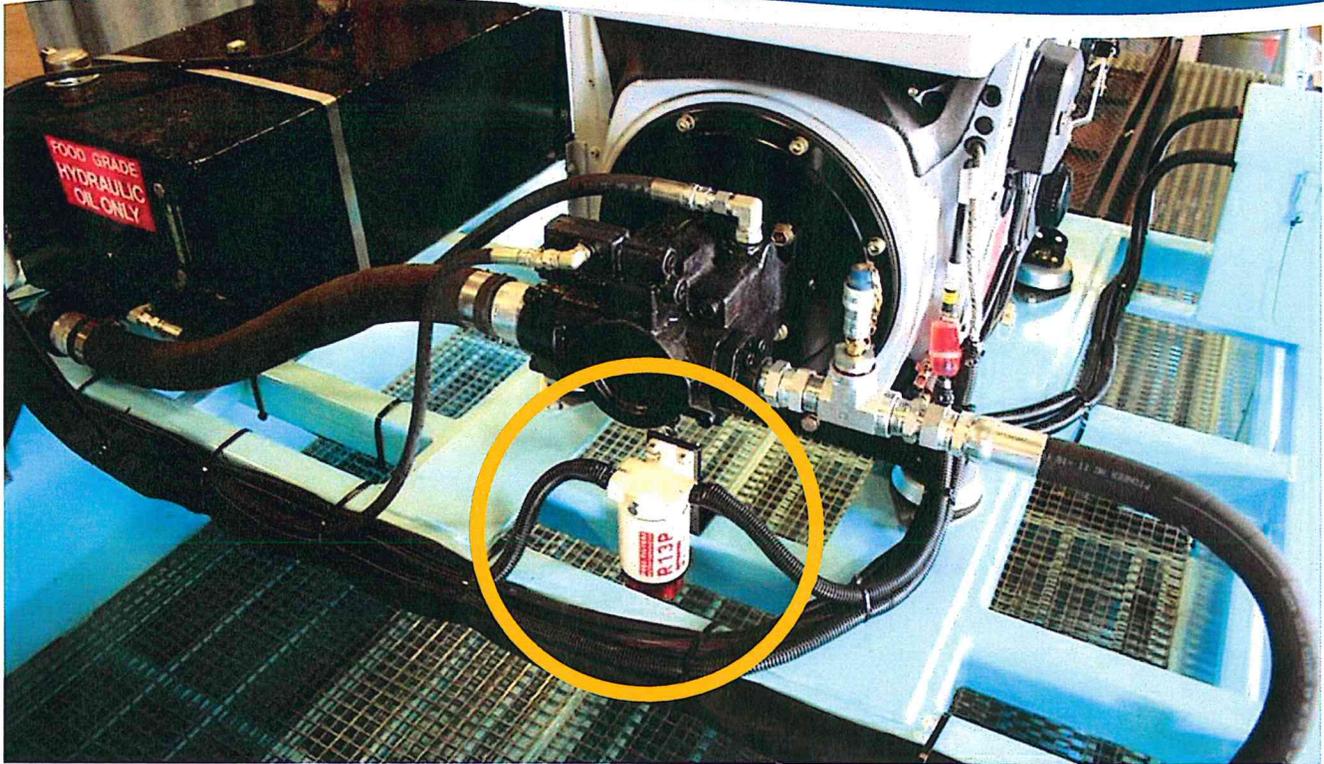
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option - cabs & pilot houses



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feature - fuel filter assembly



Are you certain that you can trust the quality of your diesel? Customers from the USA and around the world have reported finding water and other debris in their diesel fuel. If not contained, it will lead to expensive and permanent damage to your diesel engine.

To reduce the risk Aquarius Systems supplies as standard equipment an In-Line Fuel Filter Assembly. This external filter provides an additional layer of protection to the fuel filter supplied by the engine manufacturer.

When monitored and maintained, these units are extremely effective in removing more than 99% of free water normally found in fuel due to condensation. The filtering media removes particle down to two microns and prevents water from entering the injection system.



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