

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
AQUATIC INVASIVE SPECIES GRANT PROGRAM
EARLY DETECTION & RESPONSE

Application Materials

*Upper Kaubashine Lake AIS
Early Detection & Response: 2014-2016*

Prepared for

Town of Hazelhurst

February 1, 2014

Onterra, LLC
Lake Management Planning

INTRODUCTION AND PROBLEM IDENTIFICATION

Upper Kaubashine Lake, Oneida County, is a 190 acre spring lake with a maximum depth of 56 feet. Eurasian water milfoil (EWM) was first discovered in the lake in July of 2013 along the lake's northwest side. Rusty crayfish, another one of Wisconsin's aquatic invasive species (AIS), is also known to inhabit the lake. The Upper Kaubashine Lake Property Owners Association, founded in 1973, has become deeply concerned over the introduction of EWM and began seeking assistance to manage this aggressive invasive plant.

Onterra, LLC was contracted that summer to conduct a full survey of Upper Kaubashine Lake to gain an understanding of EWM's distribution and density within the lake. The results of this survey show that in September 2013, EWM was fairly colonized along the lake's northwest shoreline (Map 1). Additionally, single/few occurrences were observed along the lake's northern shoreline, northeastern shoreline, and southern-most shoreline.

Based upon the results of this survey and conversations with the UKLPOA, Onterra advised the UKLPOA to use a combination of professional and volunteer monitoring with professional hand-harvesting to manage the EWM in Upper Kaubashine Lake. The Town of Hazelhurst has agreed to sponsor this grant and the protective studies that would occur on Upper Kaubashine Lake. The project design detailed below implements this strategy.

PROJECT SCOPE

The three-year project described below utilizes a cyclic course of actions aimed at reducing current occurrences of EWM in Upper Kaubashine Lake while minimizing the chance of its spread to new locations in the lake. Monitoring efforts would be completed twice each summer by professionals, with the results of those surveys being updated on an association-owned GPS unit several times each year. Data collected by association volunteers, including professional hand-harvesting areas, would be updated in the professional database at the end of each year.

Early-Season AIS Surveys (June)

During these surveys, the entire littoral zone of Upper Kaubashine Lake would be searched for AIS. The surveys would be completed by Onterra staff during early to mid June. All incidence of EWM would be marked with a submeter GPS data collector using either points for areas less than 40-feet in diameter or polygons for areas greater than 40-feet in diameter. All mapped areas would be assigned a relative density. Completing these early-season surveys present numerous advantages:

- Typically, the water is clearer during the early summer allowing for more effective viewing of submersed plants
- EWM plants are higher in the water column than most native plants during this time of year, increasing the chances that even scattered occurrences of EWM would be located.
- Curly-leaf pondweed, another exotic plant found in Wisconsin, is at peak-biomass during June. As with the EWM, this would increase the chance of finding this exotic, if it exists within the lake.

As discussed below, the EWM located during the early-season surveys would be added to the volunteer GPS unit by Onterra. Further, these areas would be refined by Onterra staff during the peak-biomass surveys discussed below.

Summer EWM Peak-Biomass Mapping Surveys (August-September)

As the name implies, the EWM peak-biomass survey is completed when the plant is at its peak growth, allowing for a true assessment of the amount of the exotic within the lake. As with the early-season AIS survey, this survey would include a complete meander survey of the lake's littoral zone by professional ecologists. Past findings from professional and volunteer surveys would be used as focus areas. The findings from this survey would be added to association GPS unit for use during the monitoring and hand-harvesting efforts.

Volunteer Surveys, Professional Hand-Harvesting, & GPS Unit Purchase

As mentioned above, the association would be using professional hand-harvesting to control EWM within Upper Kaubashine Lake. To conduct a successful hand-harvesting control program, harvesting staff must be provided with up-to-date and accurate location data of the target species. For this project, EWM location data would be provided through regular surveys completed by both professionals and volunteers.

Volunteer surveys would be conducted two or three times each summer by association members trained by Michele Saduaskas, Oneida County AIS Coordinator during the summer of 2014. These surveys would be completed by meandering the littoral zone and collecting data in areas that are not already marked on the association GPS.

As a part of the AIS Early Detection and Response project, the association would purchase a Garmin GPS Map78. This specific unit would allow Onterra staff to create and load alternate background maps for display during volunteer surveys. The GPS unit would be updated three times each year; following the early-season AIS survey, the EWM peak-biomass survey, and the final hand-harvesting event.

Time for professional hand-harvesting services is included within this project's budget and is scheduled to occur during the summers of 2014, 2015, and 2016. Prior to each harvesting event, association volunteers would mark areas for harvesting by the professionals so professional time would not be used to search for EWM to harvest.

Project Kick-off Meeting

This meeting would be held during July 2014, towards the beginning of the proposed project, to inform stakeholders about the project and its goals. This meeting would also provide an excellent educational opportunity that would grant an introduction to important concepts in AIS management, including a discussion about applicable control strategies (hand-harvesting, herbicide treatments, etc.) and realistic AIS management goals.

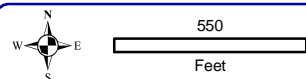
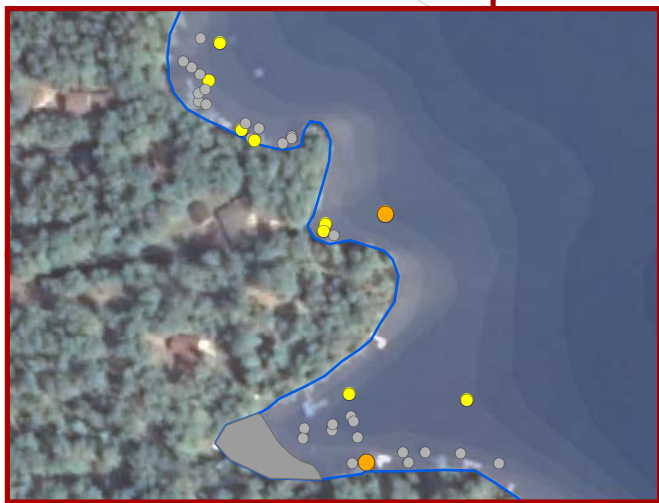
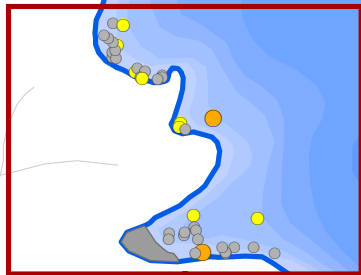
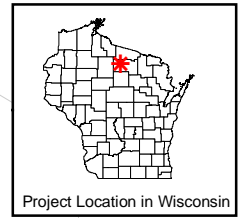
Annual Reporting

During the fall/winter following each growing season's activities, Onterra would provide a brief letter report to the association listing each of the surveys completed by Onterra staff and

a summary of each survey's results. Applicable maps would also be included along with any applicable guidance on EWM management in Upper Kaubashine Lake. During that same timeframe, the association would also complete an annual report of their activities and furnish it to the WDNR. Following the final year of activities, the association would furnish an end-of-project report summarizing all activities for the project, their results, and the group's plan for the coming years.

PROJECT COST BREAKDOWN

Upper Kaubashine Lake AIS Early Detection & Response Grant	Cash Costs	Donated Value
Monitoring and Reporting		
2013 EWM Peak-Biomass Survey, Mapping, & Reporting	\$1,540.00	
<i>2013 Monitoring & Reporting Subtotal</i>	<i>\$1,540.00</i>	
2014 Early-Season AIS Survey - June	\$1,175.00	
Results Map & Association GPS Update	\$180.00	
2014 EWM Peak-Biomass Survey - Late-July - August	\$1,425.00	
Results Map, Letter Report, & Association GPS Update - Prior to Final Hand-Harvest	\$180.00	
End-of-Year Association GPS Update	\$180.00	
<i>2014 Monitoring & Reporting Subtotal</i>	<i>\$3,140.00</i>	
2015 Early-Season AIS Survey - June	\$1,175.00	
Results Map & Association GPS Update	\$180.00	
2015 EWM Peak-Biomass Survey - Late-July - August	\$1,425.00	
Results Map, Letter Report, & Association GPS Update - Prior to Final Hand-Harvest	\$180.00	
End-of-Year Association GPS Update	\$180.00	
<i>2015 Monitoring & Reporting Subtotal</i>	<i>\$3,140.00</i>	
2016 Early-Season AIS Survey - June	\$1,175.00	
Results Map & Association GPS Update	\$180.00	
2016 EWM Peak-Biomass Survey - Late-July - August	\$1,425.00	
Results Map, Letter Report, & Association GPS Update - Prior to Final Hand-Harvest	\$180.00	
End-of-Year Association GPS Update	\$180.00	
<i>2016 Monitoring & Reporting Subtotal</i>	<i>\$3,140.00</i>	
Project Administration & Communications	\$965.00	
Project Kick-Off Meeting	\$720.00	
Travel Costs (Mileage @ \$0.58/mi.)	\$897.00	
<i>Monitoring & Reporting Subtotal</i>	<i>\$13,542.00</i>	
Professional Hand-Harvesting		
2014 Professional Hand-Harvesting (100 diver-hours)	\$3,000.00	
2015 Professional Hand-Harvesting (75 diver-hours)	\$2,250.00	
2016 Professional Hand-Harvesting (60 diver-hours)	\$1,800.00	
<i>Professional Hand-Harvesting Subtotal</i>	<i>\$7,050.00</i>	
Miscellaneous Costs		
Association GPS Purchase	\$300.00	
Association Printing	\$200.00	
<i>Miscellaneous Costs Subtotal</i>	<i>\$500.00</i>	
Volunteer Efforts		
Initial Discovery & Project Start-up - 2013		
Association Volunteers and Board of Directors (60 hrs @ \$12/hr)		\$720.00
Kick-off Meeting		
General Membership (30 peop. @ \$12/hr x 1hr)		\$360.00
2014 - 2016 AIS Surveillance Monitoring		
Volunteers (60 hrs/yr @ \$12/hr)		\$2,160.00
Volunteer Watercraft Use (4 days/yr @ \$70/day)		\$840.00
2014 - 2016 Project Administration & Communications		
Association Volunteers and Board of Directors (40 hrs/yr @ \$12/hr)		\$1,440.00
<i>Volunteer Efforts Subtotal</i>		<i>\$5,520.00</i>
Project Subtotals	\$21,092.00	\$5,520.00
Total Project	\$26,612.00	
State Share Requested (75%)	\$19,959.00	



Onterra LLC
 Lake Management Planning
 815 Prosper Road
 De Pere, WI 54115
 920.338.8860
 www.onterra-eco.com

Sources:
 Hydro and Roads: WDNR
 Bathymetry: WDNR, digitized by Onterra
 Orthophotography: NAIP, 2010
 Aquatic Plant Survey: Onterra, 2013
 Map Date: September 16, 2013

Legend

- | | |
|--|----------------------|
| Highly Scattered (<i>none found</i>) | Single or Few Plants |
| Scattered | Clump of Plants |
| Dominant (<i>none found</i>) | Small Plant Colony |
| Highly Dominant (<i>none found</i>) | |
| Surface Matting (<i>none found</i>) | |

Map 1

Upper Kaubashine
 Oneida County, Wisconsin
September 2013
EWM Survey Results

Aquatic Invasive Species (AIS) Control Grant Application

Form 8700-307 (12/11)

Notice: Use of this form is required by the DNR for any application filed pursuant to ch. NR 198, Wis. Adm. Code. Personal information collected on this form, including such data as your name, address, phone number, etc., will be used for management and enforcement of DNR programs, and is not intended to be used for any other purpose. Information will be made accessible to requesters under Wisconsin's Open Records laws (s. 19.32-19.39, Wis. Stats.) and requirements.

Section I: Application Type

Check one:

- Education, Prevention & Planning
 Early Detection & Response
 Established Infestation Control

Legislative District Numbers		To determine your legislative district, go to http://165.189.139.210/WAML/ Type in complete address, next screen shows information
Senate	Assembly	
12	34	

Section II: Applicant Information

Applicant			Type of Eligible Lake or River Applicants			
Upper Kaubashine Lake Property Owners Association			<input type="checkbox"/> County	<input type="checkbox"/> Tribe	<input type="checkbox"/> Other Gov't Unit	<input type="checkbox"/> Federal
Waterbody Name			<input type="checkbox"/> City	<input type="checkbox"/> Sanitary Dist.	<input type="checkbox"/> Nonprofit Org.	<input type="checkbox"/> State
Upper Kaubashine Lake			<input type="checkbox"/> Village	<input type="checkbox"/> Dist.	<input type="checkbox"/> College, School, etc.	<input type="checkbox"/> Other
Project County/Township/Section/Range			<input checked="" type="checkbox"/> Town	<input type="checkbox"/> Assoc.		
Oneida/T38N/R6E/S9,16						
Authorized Representative Named by Resolution			Project Contact Name			
Ted Cushing			Tim Hoyman			
Authorized Representative Title			Project Contact Title			
Town Chairman			Aquatic Ecologist, Onterra, LLC			
Address			Address			
P.O. Box 67			815 Prosper Road			
City	State	ZIP Code	City	State	ZIP Code	
Hazelhurst	WI	54531	De Pere	WI	54115	
Daytime Phone (area code)	Evening Phone (area code)		Daytime Phone (area code)	Evening Phone (area code)		
715-356-5800			920.338.8860			
E-Mail Address			E-Mail Address			
hazelwi@frontier.com			thoyman@onterra-eco.com			

Mail Check to: (if different from applicant)

Name and Title		Address		
Organization		City	State	ZIP Code

For DNR Use Only

Application Type	Date Received	Date Reviewed (AIS/LC/RC)	AIS/Lake/River Coordinator Approval/Date
Waterbody ID #	Adequate Public Access <input type="checkbox"/> Yes <input type="checkbox"/> No		Environmental Grants Specialist Approval / Date
Eligible Project <input type="checkbox"/> Yes <input type="checkbox"/> No	Eligible Applicant <input type="checkbox"/> Yes <input type="checkbox"/> No	Project Priority Rank	Research / Demo Project <input type="checkbox"/> Yes <input type="checkbox"/> No
Prior Grant Award(s) <input type="checkbox"/> Yes <input type="checkbox"/> No	Fiscal Year(s)	Amount Received to Date \$	Project Awarded <input type="checkbox"/> Yes <input type="checkbox"/> No

Section III: Project Information

Project Title Upper Kaubashine Lake AIS Early Detection & Response: 2014-2016	Proposed Ending Date June 30, 2017
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Other Management Units	Letter of Support	Other Management Units	Letter of Support
1.	<input type="checkbox"/>	4.	<input type="checkbox"/>
2.	<input type="checkbox"/>	5.	<input type="checkbox"/>
3.	<input type="checkbox"/>	6.	<input type="checkbox"/>

Section IV: Public Access

Number of Public Vehicle Trailer Parking Spaces Available at Public Access Sites: 12

Number of Public Access Sites Including Boat Launches and Walk-ins: 1

Section V: Cost Estimate and Grant Request

**Section V must be completed or application will be returned.
Details in support of Section V are welcome.**

	Project Costs		
	Column 1 Cash Costs	Column 2 Donated Value	DNR Use Only
1. Salaries, wages and employee benefits			
2. Consulting services	\$13,542.00		
3. Purchased services	\$7,050.00		
4. Other purchased services (specify)			
5. Plant material			
6. Supplies (specify):	\$530.00		
7. Depreciation on equipment			
8. Hourly equipment use charges			
9. State Lab of Hygiene (SLOH) Costs			
10. Non-SLOH Lab Costs			
11. Other (specify)		\$5,520.00	
12. Subtotals (Sum each column)	\$21,092.00	\$5,520.00	
13. Total Project Cost Estimate (sum of column 1 plus sum of column 2)	\$26,612.00		
14. State Share Requested (up to 75% of total costs may be requested)	\$19,959.00		

Subject to the following maximum grant amounts:

- Education, Prevention and Planning Projects—up to \$150,000
- Early Detection and Response Projects—up to \$20,000
- Established Infestation Control Projects—up to \$200,000

Use of Federal funding as match: (check box below if applicable)

We are using or planning to apply for Federal funds to be used as match.
If known, indicate source of funding:

Section VI: Attachments (check all that are included)

A. For all applicants: (Refer to instructions for applicability.)

- 1. Authorizing resolution
- 2. Letters of support
- 3. Map of project location and boundaries
- 4. Lake map with public access sites identified (per Section VI of this application and page 20 of the guidelines)
- 5. Itemized breakdown of expenses
- 6. For projects that entail sending samples to the State Laboratory of Hygiene (SLOH) only: a completed SLOH Projected Cost Form
- 7. Project scope/description:
 - a. Description of project area
 - b. Description of problem to be addressed by project
 - c. Discussion of project goal and objectives
 - d. Description of methods and activities
 - e. Description of project products or deliverables
 - f. Description of data to be collected, if applicable
 - g. Description of existing and proposed partnerships
 - h. Discussion of role of project in planning and/or management of lake
 - i. Timetable for implementation of key activities
 - j. Plan for sharing project results
 - k. Other information in support of project not described above

B. For applicants that are Lake Management Organizations (LMOs), River Management Organizations (RMOs) or Qualified Non-profit Organizations:

- 1. For first time applicant LMOs/RMOs only: A completed Form 8700-226 (Lake Association Organizational Application) or 8700-287 (River Management Organization Application)
- 2. For first time applicant Qualified Nonprofit Organizations only: Copy of IRS 501(c)(3) determination letter and copies of your Articles of Incorporation and Bylaws
- 3. List of national and/or statewide organizations with which you are affiliated
- 4. List of board members' names, including municipality and county of residence. Designate officers
- 5. Documentation of current financial status
- 6. Brochures, newsletters, annual reports or other information about your organization

C. Education, Prevention and Planning Projects: (No additional attachments required.)

D. Early Detection and Response Projects:

- 1. APM Permit

E. Established Infestation Control Projects:

- 1. Management Plan
- 2. APM Permit

Section VII: Certification

I certify that information on this application and all its attachments are true and correct and in conformity with applicable Wis. Statutes

Print/Type Name of Authorized Representative Ted Cushing	Title of Authorized Representative Town Chairman
Signature of Authorized Representative	Date Signed

**Wisconsin Department of Natural Resources
Grant Project
Resolution**

**RESOLUTION OF TOWN OF HAZELHURST
Oneida County, Wisconsin**

WHEREAS Upper Kaubashine Lake, Oneida County, is an important resource used by the public for recreation and enjoyment of natural beauty; and

WHEREAS we recognize that a well-planned and holistic lake *and* aquatic invasive species management project will better the lake now and for future users; and

WHEREAS the control and prevention of aquatic invasive species are important to the health and well-being of the lake; and

WHEREAS we are qualified to carry out the responsibilities of the planning project,

IT IS, THEREFORE, RESOLVED THAT:

The Town of Hazelhurst requests the funds and assistance available from the Wisconsin Department of Natural Resources under the "AIS Early Detection and Response Grant Program", and

HEREBY AUTHORIZES the current Chairman of the Town of Hazelhurst to act on behalf of the Town of Hazelhurst to: submit an application for the State of Wisconsin for financial aid for monitoring, planning and education purposes; sign documents; and take necessary action to undertake, direct, and complete an approved grant.

BE IT FURTHER RESOLVED THAT the Town of Hazelhurst will meet the obligations of the planning project including timely publication of the results and meet the financial obligations under this grant including the prompt payment of our applicable 25% commitment to project costs.

We understand the importance of a continuing management program for Upper Kaubashine Lake and intend to proceed on that course.

Adopted this 8th day of October, 2013.

By a vote of: 3 in favor — against — abstain

BY: _____

Ted Cushing
Ted Cushing, Chairman
Town of Hazelhurst