State of Wisconsin
Department of Natural Resources

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 may 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	
Senate	Assembly
1	2

To determine your legislative district, go to http://165.189.139.210/WAML//
Type in complete address, next screen shows information.

Section II: Applicant Information

Applicant: Woodland Dunes Nature Center & Preserve

Waterbody Name: West Twin River & East Twin River

Project County/Township/Section/Range: Manitowoc / Various

Type of Eligible Applicants:
☐ County ☐ Tribe ☐ Other Gov't Unit ☐ Federal
☐ City ☐ Sanitary Dist. ☒ Nonprofit Org. ☐ State
☐ Village ☐ Dist. ☐ College, School, etc. ☐ Other
☐ Town ☐ Assoc.

Authorized Representative Named by Resolution	Project Contact Name
James Knickelbine	Jennifer Powell
Authorized Representative Title	**Project Contact Title**
Executive Director	Land Management Coordinator
Address	**Address**
3000 Hawthorne Ave. P.O. Box 486	3000 Hawthorne Ave. P.O. Box 486
City / State / ZIP Code	**City / State / ZIP Code**
Two Rivers / WI / 54241	Two Rivers / WI / 54241
Daytime Phone (area code)	**Daytime Phone (area code)**
920-793-4007	920-793-4007
Evening Phone (area code)	**Evening Phone (area code)**
Same	Same
E-mail Address	**E-Mail Address**
nature@woodlanddunes.org	jenniferp@woodlanddunes.org

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
AIS-ACEI	1-28-2014		Mary Gansberg

Waterbody ID#	Adequate Public Access	Environmental Grants Specialist Approval / Date	
84000, 87000, 20	☒ Yes ☐ No		
Eligible Project	**Eligible Applicant**	**Project Priority Rank**	**Research / Demo Project**
☒ Yes ☐ No	☐ Yes ☐ No		☐ Yes ☐ No
Prior Grant Award(s)	**Fiscal Year(s)**	**Amount Received To Date**	**Project Awarded**
☒ Yes ☐ No		$	☐ Yes ☐ No

Section III: Project Information

Project Title: Woodland Dunes Twin Rivers Phragmites Control

Proposed Ending Date: 12/31/2018

Other Management Units	Letter of Support	Other Management Units	Letter of Support
1. Lakeshore Natural Resource Partnership	☒	4. Lakeshore Invasive Species Management Area	☒
2. UW Sea Grant	☒	5. Friends of Mariner's Trail	☒
3. City of Two Rivers	☒	6. Pheasants Forever / NRCS	☒

Section IV: Public Access

Number of Public Vehicle Trailer Parking Spaces Available at Public Access Sites: 55

Number of Public Access Sites Including Boat Launches and Walk-ins: 13

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	16,400	12,000	
2. Consulting services	42,500		
3. Purchased services--printing and mailing	1,000		
4. Other purchased services (specify):			
5. Plant material	10,000		
6. Supplies (specify)			
7. Depreciation on equipment			
8. Hourly equipment use charges		7,620	
9. State Lab of Hygiene (SLOH) Costs			
10. Non-SLOH Lab Costs			
11. Other (specify) permit fees	2,225		
12. **Subtotals** (sum each column)	72,125	19,620	
13. **Total Project Cost Estimate** (sum of **column 1 plus** sum of **column 2**)	91,745		
14. **State Share Requested (up to 75% of total costs may be requested)**	68,675		

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.)***

- [X] 1. Authorizing resolution
- [X] 2. Letters of support
- [X] 3. Map of project location and boundaries
- [X] 4. Lake map or river segment with public access sites identified (per Section IV of this application and page 20 of the guidelines)
- [X] 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
- [X] 7. Project scope/description:
  - [X] a. Description of project area
  - [X] b. Description of problem to be addressed by project
  - [X] c. Discussion of project goals and objectives
  - [X] d. Description of methods and activities
  - [X] e. Description of project products or deliverables
  - [ ] f. Description of data to be collected, if applicable
  - [X] g. Description of existing and proposed partnerships
  - [X] h. Discussion of role of project in planning and/or management of lake
  - [X] i. Timetable for implementation of key activities
  - [X] 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
- [X] 4. List of board members' names, including municipality and county of residence. Designate officers
- [X] 5. Documentation of current financial status
- [X] 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 application

E. Established Infestation Control Projects:

- [X] 1. Management Plan
- [X] 2. APM Permit application

Section VII: Certification

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

Print/Type Name of Authorized Representative	Title of Authorized Representative
James Knickelbine	Executive Director
Signature of Authorized Representative	**Date Signed**
James Knickelbine	1/23/14

Invasive Species Management Grant Resolution

RESOLUTION OF: Woodland Dunes Nature Center and Preserve, Inc., in the County of Manitowoc.

WHEREAS The East Twin and West Twin Rivers are an important resource for wildlife and used by the public for recreation and enjoyment of natural beauty; and
WHEREAS we are qualified to carry out the responsibilities of the invasive species management project described in the state grant application;
WHEREAS in this action the Board declares its intent to conduct the invasive species project described in the grant application;

IT IS, THEREFORE, RESOLVED THAT:

Woodland Dunes Nature Center and Preserve, Inc. requests funds and assistance available from the Wisconsin Department of Natural Resources under the Invasive Species Grant Program: and

HEREBY AUTHORIZES James Knickelbine, as Executive Director of Woodland Dunes Nature Center and Preserve, Inc. to: submit an application to the State of Wisconsin for financial aid; sign documents; and take necessary action to undertake, direct, and complete an approved invasive species grant project.

BE IT FURTHER RESOLVED THAT Woodland Dunes Nature Center and Preserve, Inc. will meet the obligations of the grant project, including timely publication of the results, and meet the financial obligations under this grant including the prompt payment of our 25% commitment to project costs.

We understand the importance of a continuing invasive species protection program for the Manitowoc County and intend to proceed on that course.

Adopted this 13th day of January, 2014
By a vote of 11 in favor, 0 against, and 0 abstain

Respectfully submitted by

Lyn Brouchoud

Lyn Brouchoud, Secretary

Woodland Dunes /West Twin River and East Twin River Control Grant Application for Phragmites

Background

Woodland Dunes Nature Center's genesis began in 1965 when local resident Bernie Brouchoud began catching, banding and releasing birds on what is now WDNC property. Today, Woodland Dunes Nature Center's preserve covers approximately 1,300 acres and is home to more than 400 species of plants, 260 species of both resident and migratory birds, 40 species of mammals (including human visitors), 7 species of amphibians, and thousands of species of invertebrates. Woodland Dunes Nature Center and Preserve is a legacy area with the highest ranking of conservation significance and recreation potential (WI Land Legacy Report). This is due to its unique habitat (ridges, swales, floodplains, forests and wetlands) as well as the size of undeveloped blocks remaining and its importance for habitat and food sources for migratory and resident birds. It is also important habitat for amphibians, reptiles, and mammals. It is a Wisconsin Wetland Association Wetland Gem. Woodland Dunes is also a public land (State Natural Area), a conservation opportunity area (COA) of global ecological significance, and an Important Bird Area (IBA) as defined in Wisconsin's Wildlife Action Plan. Woodland Dunes and the West Twin and East Twin Rivers are an important resource for threatened, endangered, special concern, and Species of Greatest Conservation Need (SGCN). Species in the project area include 64 bird species classified as threatened, endangered, special concern, or SGCN.

There is a 400 acre State Natural Area located within the preserve. In the State Natural Area management plan, the West Twin River marsh is described as a cattail-bulrush marsh of significance primarily as nesting habitat for Wisconsin endangered common terns and Forster's terns. This area also has had summer resident little gulls with nesting documented in 1975 (the first in the United States and one of the few in North America). The area is used by summering Caspian terns. A variety of other wetland bird species have been recorded here. The West Twin River Marsh is ranked as an Endangered Species Habitat of state significance (Wisconsin Scientific Area Preservation Council, Scientific and Natural Area report: Woodland Dunes Beech-Hemlocks, 1983) (C2).

The wetlands along the East and West Twin Rivers, including part of the Woodland Dunes Preserve, have experienced invasion by *Phragmites australis* which has accelerated in the last decade.

Woodland Dunes' mission is to protect and manage its globally important wildlife habitat so as to maintain its ecological integrity, and to involve the community in a greater understanding of natural resources through education, programmed events, and experience in our preserve. With that mission in mind, the Woodland Dunes/ West Twin River and East Twin River Phragmites Management plan for 2014-2019 incorporates source populations along the river shoreline up to the first dam in addition to the preserve property itself.

Education/Prevention

Prevention/education will also be achieved through the Clean Boats, Clean Waters (CBCW) program. In 2013 approximately 50 hours were spent by UW Sea Grant interns conducting inspections on the West Twin River and East Twin River combined. Working in cooperation with UW Sea Grant and Manitowoc County Lakes Association, Woodland Dunes staff and volunteers would train CBCW watercraft inspectors and staff boat landings along the West Twin River and East Twin River. Staff and volunteers would spend at least 200 hours per year conducting watercraft inspections and education per the requirements of s.NR 198.22 (A1). Volunteers will be trained to identify AIS and conduct water body surveillance monitoring for early detection using accepted WDNR or citizen-based monitoring (Project RED) protocols where data is being entered into SWIMS (A3).

Woodland Dunes works closely with members of the community and other organizations to address potential source populations outside the preserve. This is done by face to face contact and education with private property owners. Woodland Dunes is already working with private property owners and organizations adjacent to the Preserve to initiate control efforts and obtain permission to treat *Phragmites* on private property. Woodland Dunes has a good working relationship with the City of Two Rivers and is working closely with them on *Phragmites* removal within the city. Partnerships have been formed and permission obtained from Glacial Lakes Conservancy to treat *Phragmites* on their land. Within the timeframe of this management plan, Woodland Dunes will also reach out to Manitowoc County Fish & Game Association to partner in treating *Phragmites* on their land. Additional partnering may be achieved through the Friends of the Twin Rivers Watershed, Friends of Mariner's Trail, and others. Woodland Dunes has also partnered with the Lakeshore Invasive Species Management Area (LISMA) to combine resources and efforts to control *Phragmites* and other invasive species in a four county area which includes Manitowoc, Kewaunee, Calumet, and Fond du Lac counties.

Results of this management effort will be submitted to WDNR per aquatic invasive species control permit requirements. An annual summary report of all grant related activities will be submitted to WDNR. Woodland Dunes Nature Center will also publicize activities and results in publications including newsletters, social media, websites, etc.

Need for prevention

If unmanaged, *Phragmites* has the potential to overwhelm native species of plants including grasses, sedges, and forbs, reducing species diversity and drastically reducing habitat quality. A six-fold reduction in avian species richness was documented in wetlands in the eastern US following Phragmites invasion.

The control activity will take place on Statewide AIS source water – Great Lakes tributaries up to the first dam (B1a).

Methods of Enhanced Protection

The potential for opening up an area to other invasive species would be addressed through seeding native plants into areas opened up by *Phragmites* treatment (C1). Seeding would occur on the riparian areas 1000 ft^2 or greater to boost the native seed bed and prevent creating a large

disturbed area for *Phragmites* to reestablish or for other non-natives to establish on the site. Seeding would be dependent on water levels, accessibility, current plant community, and potential for success. A native, wetland emergent seed mix would be used and would consist of native grasses, sedges, and rushes such as blue joint grass, reed manna grass, fowl manna grass, wool grass, prairie cordgrass, bristly sedge, fringed sedge, porcupine sedge, common rush, hard-stem bulrush, dark green bulrush, river bulrush, red bulrush, and great bulrush. It would also include native wildflowers such as sweet flag, common water plantain, southern blue flag iris, monkey flower, common arrowhead, and great bur reed. Seeding rate would be up to 4 pure live seed (PLS) pounds per acre and would be determined by current community diversity, with monoculture *Phragmites* sites receiving more native seeds to increase the chance of native re-establishment. Best Management Practices (BMPs) will be followed and the management is flexible to adjust to recommendations both of which species to use and how much to use. Monitoring of the treatment/seeded sites will occur several times each year to determine the success and adjustments will be made as needed.

Stage of Infestation

Woodland Dunes Nature Center and Preserve successfully completed an early response project for *Phragmites* on its properties from 2007-2010 (D1). In 2013 a small, late treatment occurred in late October. Treatment occurred using a combination of Aquaneat and Habitat on the Winnie Spring Preserve (owned by Glacial Lakes Conservancy) shoreline property and Woodland Dunes Nature Center and Preserve shoreline property as well as City of Two Rivers shoreline property, all along the West Twin River. Treatment also occurred on the East Twin River shoreline of Adams Street property owners and on an island in the river. The total treatment area is estimated to be 5 acres. This treatment was done without any financial assistance from the State (H3). There has not been an AIS Established Population Control grant for the same species in the same waterbody in the last five years (I1). Current mapping efforts covered approximately 7 miles of river, and included riparian properties on both sides of the main channels. Current mapped *Phragmites* colonies cover 30 acres. This is less than 25% of the colonizable area (D2).

Long Term Control

The proposed control action for *Phragmites* is a combination of the bundle/cut/treat method and the foliar application method of all *Phragmites* populations in the project area. These have been historically used on these populations with success (80% reduction in initial infestation on Woodland Dunes property from year 1 to year 2 of rapid response grant) and are the most logical given the status of *Phragmites* in the management area. Continued efforts over 5 years will allow for new infestations to be detected early enough preventing them from taking hold. Existing populations will be treated and monitored over the 5 years allowing for prevention of expansion and reduction in infestation. Dead canes will be cut down after treatment, to the extent possible, in order to allow better detection of new growth the following year. Individual plants not in a colony will be hand pulled where they are found (E1).
Woodland Dunes staff had a pre-application grant scoping consultation with the Department on November 14, 2013 and again on January 15, 2014 (E2).

Public Access

The East Twin River has three access sites within the city limits of Two Rivers (eight access sites total in the project area) and the West Twin River has one access site within the city limits of Two Rivers and two additional access sites within 3 miles of Two Rivers, which is more than the minimum public boating access as defined in s. NR 1.91 (4) (F1).

The Twin Rivers also have numerous road right of ways reaching the water's edge, sportsmen clubs (Manitowoc County Fish and Game, Shoto Sportsmen's Club), two or more private resorts (Stop N Dock, Seagull Marina and Campground), wildlife observation areas (Woodland Dunes Nature Center and Preserve), public fishing piers (Two Rivers harbor and breakwater), and public land with accessible frontage (City of Two Rivers Veteran's Park, Washington Highlands riverfront trail, Woodland Dunes Nature Center and Preserve)(F2).

To date habitat protection has occurred within the Woodland Dunes preserve, initially via land acquisition to prevent filling and development in wetlands. Woodland Dunes also constructed a boardwalk through the West Twin River marsh, which protects the habitat from foot traffic and provides a canoe launch access to the river as well as a wildlife viewing area. On Willow Trail in the Preserve, buildings and rubbish were removed, ponds were constructed, and wetlands and prairies were restored. In the forest on the Preserve, non-native invasive honeysuckle, buckthorn, and Japanese barberry were removed via mechanical and chemical treatment and native species were planted. Woodland Dunes *Phragmites* management plan is part of a comprehensive land management effort to protect native plant species (G1).

Woodland Dunes Twin Rivers Phragmites control grant Timeline

2014

Spring –Fall - conduct Project RED trainings/CBCW volunteer trainings

Memorial Day – Labor Day – CBCW volunteer boat inspections conducted

Early-mid summer – survey of *Phragmites* populations in project area, mapping of *Phragmites* populations to first dam on each river

Late summer – chemical treatment of *Phragmites*, followed up by removal of dead stalks

Late Fall – submit APM treatment record to DNR, also submit annual report for grant

2015

Spring –Fall - conduct Project RED trainings/CBCW volunteer trainings

Memorial Day – Labor Day – CBCW volunteer boat inspections conducted

Early-mid summer – survey of *Phragmites* populations in the project area including mapping

Late summer – chemical treatment of *Phragmites*, followed up by removal of dead stalks

Late Fall – submit APM treatment record to DNR, also submit annual report for grant

2016

Spring –Fall - conduct Project RED trainings/CBCW volunteer trainings

Memorial Day – Labor Day – CBCW volunteer boat inspections conducted

Early-mid summer – survey of *Phragmites* populations in project area, mapping of *Phragmites* populations to first dam on each river

Late summer – chemical treatment of *Phragmites*, followed up by removal of dead stalks

Late Fall – submit APM treatment record to DNR, also submit annual report for grant

Woodland Dunes Twin Rivers Phragmites Control Grant Application Budget 2014-2018

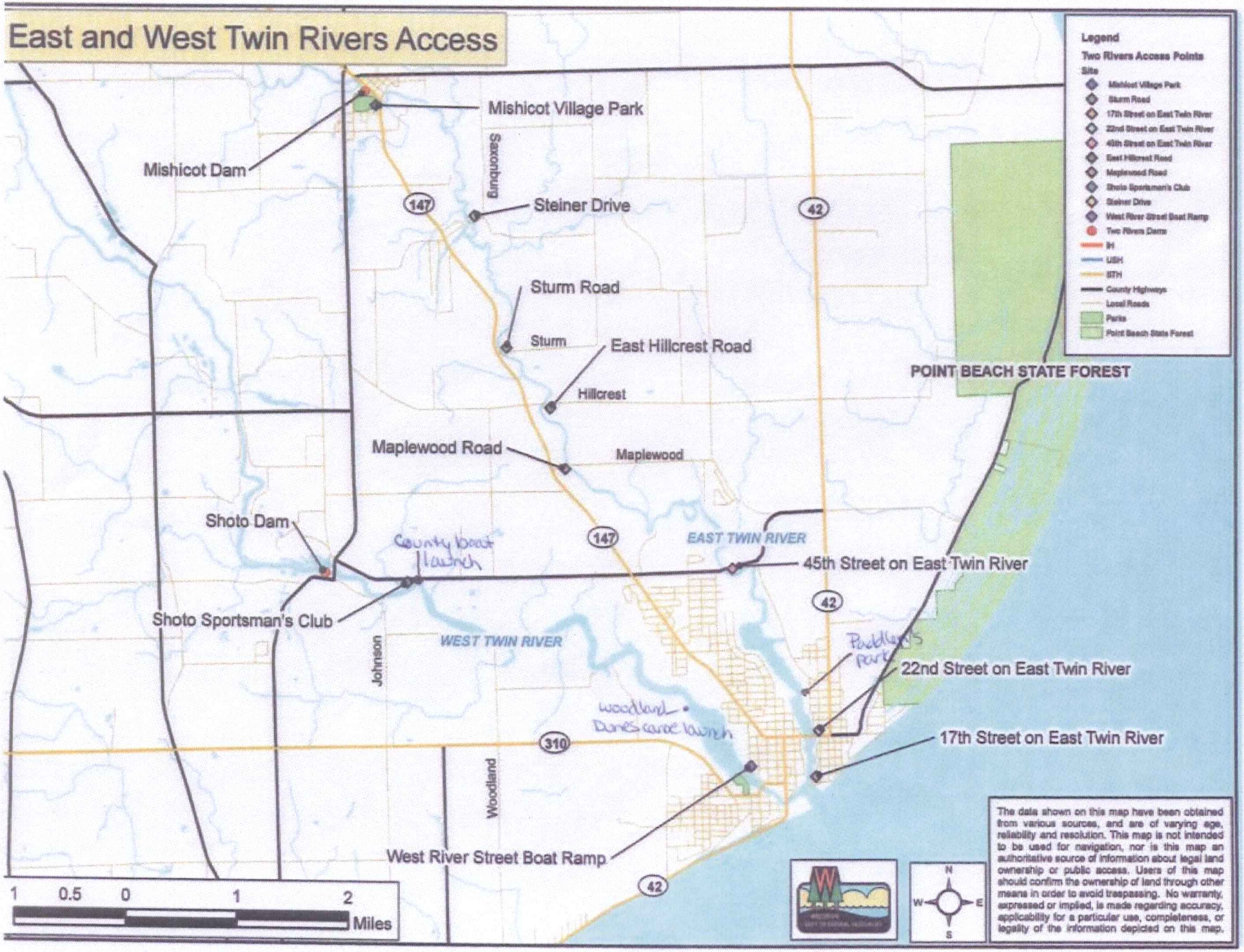
	Expense	Match	Total Cost	Source
Personnel				
Salaries, wages, and employee benefits	13,950	50	14,000	private landowner donation
Donated volunteers		12,000	12,000	Woodland Dunes volunteer hours
Mapping		2,400	2,400	Woodland Dunes intern hours
Consulting services (control activities)	42,500		42,500	
Printing and Mailing				
Educational materials and annual reports, presentations, etc to landowners		1,000	1,000	Woodland Dunes
Plant Material				
Seeds	10,000		10,000	
Equipment				
boat use		5,460	5,460	Woodland Dunes
gps use		300	300	Woodland Dunes
sprayer use		1,860	1,860	Woodland Dunes
Permit Fees	2,225		2,225	
Total	**68,675**	**23,070**	**91,745**	

Expense Summary

1. **Personnel**
    a. Salaries, wages and employee benefits – for development of management plan (60 hours at $25/hour=$1,500) and management of the 5 year control project (500 hours at $25/hour = $12,500)
    b. Donated volunteers – State rate of $12 per hour for Clean Boat Clean Water volunteers for 200 hours a year for 5 years (1000 hours at $12/hour=$12,000)
    c. Mapping – Wages for intern at $12 per hour to map Phragmites within the project area multiple times throughout the project 40 hours a year for 5 years (200 hours at $12/hour=$2,400)
    d. Consulting services (control activities) – Costs associated with the actual control activities $500 per acre (30 acres 2014 = $15,000, 35 acres 2015 = $17,500, 10 acres 2016 = $5,000, 5 acres 2017 = $2,500, 5 acres 2018 = $2,500, total = $42,500)
2. **Printing and Mailing**
    a. Educational materials and reports sent to riparian owners and interested parties as well as presentations and trainings - $200 per year X 5 years = $1,000
3. **Plant Material**
    a. Native plant seeds to restore wetlands following treatment of *Phragmites- $5,000 for seeds per year for the last two years of the project = $10,000*
4. **Equipment**
    a. Boat use – State wage rate for donated boat use for control, follow up, and planting activities not carried out by the consultant ($78/day at 10 days/year for years 1 and 2, and 5 days/year for years 3,4, and 5 = $2,730 x 2 boats = $5,460)
    b. GPS Unit use – GPS unit utilized by Woodland Dunes intern to map *Phragmites* populations in the project area – state rate of $300 per project
    c. Sprayer use – State DOT rate for use of sprayer for *Phragmites* treatment not carried out by the consultant ($23.26/hour at 80 hours total for the 5 year project=$1,860)
5. **Permit Fees**
    a. APM permit fees for the duration of the project, based on predicted acres
        i. year 1 - $20 permit fee plus $25x30 acres = $750 acreage fee = $790 total
        ii. year 2 - $20 permit fee plus $25x35 acres = $875 acreage fee = $895 total
        iii. year 3 -$20 permit fee plus $25x10 acres = $250 acreage fee = $270 total
        iv. year 4 - $20 permit fee plus $25x5 acres = $125 acreage fee = $145 total
        v. year 5 - $20 permit fee plus $25x5 acres = $125 acreage fee = $145 total
        vi. total for all 5 years = $2,245

West Twin River Mapped Phragmites November 19, 2019

East Twin River Mapped Phragmites November 19, 2013


East and West Twin Rivers Access
Legend
Two Rivers Access Points
Site
Mishicot Village Park
Sturm Road
17th Street on East Twin River
22nd Street on East Twin River
45th Street on East Twin River
East Hillcrest Road
Maplewood Road
Shoto Sportsman's Club
Steiner Drive
West River Street Boat Ramp
Two Rivers Dams
IH
USH
STH
County Highways
Local Roads
Parks
Point Beach State Forest
Mishicot Village Park
Mishicot Dam
Saxonburg
147
Steiner Drive
42
Sturm Road
Sturm
East Hillcrest Road
Hillcrest
POINT BEACH STATE FOREST
Maplewood Road
Maplewood
Shoto Dam
County boat launch
147
EAST TWIN RIVER
45th Street on East Twin River
42
Shoto Sportsman's Club
Johnson
WEST TWIN RIVER
Paddlers park
22nd Street on East Twin River
woodland Dunes canoe launch
17th Street on East Twin River
310
Woodland
West River Street Boat Ramp
42
1 0.5 0 1 2
Miles
N
W
E
S
The data shown on this map have been obtained from various sources, and are of varying age, reliability and resolution. This map is not intended to be used for navigation, nor is this map an authoritative source of information about legal land ownership or public access. Users of this map should confirm the ownership of land through other means in order to avoid trespassing. No warranty, expressed or implied, is made regarding accuracy, applicability for a particular use, completeness, or legality of the information depicted on this map.

Julie Peterson
Pheasants Forever NE WI Farm Bill Biologist
920-7331575 ext.108
Julie.peterson@wi.usda.gov

C/O USDA NRCS
3369 West Brewster St.
Appleton WI, 54914

January 24, 2014

To: WDNR, AIS grant review board.

This letter is in support of the Woodland Dunes/West and East Twin River proposal designed to accelerate control efforts for invasive *phragmites*. To slow and hopefully one day eliminate the invasion of phragmites into the West and East Twin River system and adjacent habitats, effective control efforts are vital to native plant and animal communities. Left unchecked, these monotypic stands of phragmites reduce plant diversity and wildlife habitat. Woodland Dunes mission statement is to protect and manage important wildlife habitat in order to maintain ecological integrity and to involve the community in a greater understanding of natural resources through education. Education and local involvement is key to engaging the local citizenry and a sustained effort to achieve control and eradication. Woodland Dunes is situated ideally to effectively involve and educate local landowners and provide the technical assistance required for such an effort. As a biologist who works with landowners in Manitowoc County, I fully support and recommend the funding request for Woodland Dunes.

Sincerely,

Julie Peterson

Julie Peterson
Pheasants Forever NE Farm Bill Biologist

Woodland Dunes Nature Center and Preserve, Inc.

Land Management Program Donations

Woodland Dunes is a non-profit charitable organization, and we believe our land management outreach program, including invasive species management, will benefit not only wildlife but the people in Two Rivers and nearby areas. Our programs are funded by memberships, sponsorships, grants, and donations. We are seeking additional grant funding to work with property owners to help manage their land, but donations to help sustain this program would also be very much appreciated. If you would like to make a contribution, please return the following:

Name K. PATRICIA MORSE Amount $50. check no. 4034 ENCLOSED

Address 3219 ADAMS ST TWO RIVERS, WI 54241 Phone _____

Email _____

Thank you!

3000 Hawthorne Ave. • PO Box 486 • Two Rivers, WI 54241-0486 • 920-793-4007 • www.woodlanddunes.org

LAKESHORE NATURAL RESOURCE PARTNERSHIP, INC.
LNRP

Cultivating Environmental Stewardship in the Lakeshore Region

P.O. Box 62
Sturgeon Bay, WI
54235

www.lnrp.org
inquiry@lnrp.org

January 21, 2014

Wisconsin Department of Natural Resources

AIS Project Grants

To Whom It May Concern:

I am writing to strongly support the Woodland Dunes Nature Center's plan to further implement invasive species removal with a focus on *Phragmites* along both the East and West Twin Rivers. These activities will continue to restore and enhance critical coastal habitat from Lake Michigan to the first dam on each river.

The staff of Woodland Dunes has the capacity for invasive species work having led efforts throughout Manitowoc County and in fact are part of our newly formed Lakeshore Invasive Species Management Area (LISMA). We are beginning to see large areas become infested with *Phragmites* and this work will help turn the tide in our battle. The project is part of an overall attempt to improve the quality of the East Twin and West Twin watersheds.

The Lakeshore Natural Resource Partnership has successfully collaborated in the past with the Woodland Dunes Nature Center and we fully support their efforts. For this project, we pledge to support the project with any outreach or assistance as needed.

Thank you for considering their proposal.

Sincerely,

James Kettler, Executive Director

tel > 920 683-4697
fax > 920 683-4776

UNIVERSITY OF WISCONSIN SEA GRANT INSTITUTE

University of Wisconsin-Manitowoc
705 Viebahn Street, Rm F103
Manitowoc, Wisconsin 54220-6699

www.seagrant.wisc.edu

January 22, 2014

To the Grant Review Committee,

I am very interested in your Woodland Dunes /West Twin River and East Twin River Shoreline Management Plan for Phragmites 2014-2018. This is an important plan of education, outreach, and management that help to protect native species, improve habitat, and slow the spread of aquatic invasive species. Your proposal has my full and enthusiastic support.

Wisconsin Sea Grant is a statewide program of basic and applied research, education, and outreach and technology transfer dedicated to the stewardship and sustainable use of the nation's Great Lakes and ocean resources. We have a well-established reputation and network with stakeholders in the coastal areas of Wisconsin. As a supporter of this project, I will work with the Woodland Dunes Land Management Coordinator to coordinate Clean Boat Clean Waters efforts on the Twin Rivers and associated Lake Michigan shoreline. I will also provide support on the training of new Clean Boat Clean Waters volunteers. I will provide support and expertise to fisheries related work associated with the management plan.

I look forward to collaborating on this project. Please contact me if any additional information on my role in the project is needed.

Sincerely,

Titus S. Seilheimer, Ph.D.
Fisheries Specialist
Wisconsin Sea Grant

Sea Grant
University of Wisconsin

Parks and Recreation Department
Hamilton Community House
1520 17th Street
Two Rivers WI 54241-0087
www.two-rivers.org
Office (920) 793-5592
Senior Center (920) 793-5596
Fax (920) 793-5529

January 22, 2014

Dear Committee:

I am writing in support of Woodland Dunes Nature Center, 3000 Hawthorn Ave, Two Rivers WI.

I have had the opportunity to work with this group over the past 10 years. They have been helpful with the phragmites problem along our Lake Michigan shores. They have worked with the gardeners along Mariners Trail, and were vital in obtaining the designation of Bird City for the City of Two Rivers. Any project the staff at Woodland Dunes Nature Center undertakes is for the improvement of the area.

I strongly support Woodland Dunes Nature Center, in their pursuit of removing the existing phragmites and reseeding the treated areas with native wetland plants, flowers sedges, rushes etc. Woodland Dunes offers the continued support for the City of Two Rivers to help maintain the beautiful shore encouraging wildlife and vegetation to be part of the landscape.

We as a community are fortunate to have the waterways and we need to continue to plan for the future and treasure our resources.

Sincerely,

Judy Goodchild

Judy Goodchild, CPM
Director Two Rivers Parks and Recreation
judgoo@two-rivers.org

Advocating for the comprehensive management
of invasive species in the lakeshore area

January 28, 2014

Wisconsin Department of Natural Resources

To Whom It May Concern:

It is with great pleasure that I write to support the efforts by Woodland Dunes Nature Center to remove *Phragmites australis* along the East and West Twin Rivers in Manitowoc County. Woodland Dunes has demonstrated a strong commitment to maintaining the ecological integrity of the local habitat. Their Phragmites Management Plan further proves that Woodland Dunes has a long term mission to eradicate *Phragmites* on and around their highly important property.

In fact, Woodland Dunes has a long history of success in removal of a variety of invasive species, including *Phragmites*. Not only have they been successful in invasive plant removal, but they use the work to educate and inform residents in the area about the plants and eradication techniques. This proposal will not only eliminate the invasive *Phragmites* in the designated areas, but will serve as a lesson to local residents so they may adopt similar practices on their own properties

The Lakeshore Invasive Species Management Area team is grateful to Woodland Dunes for their ongoing passion concerning the removal of *Phragmites* . They are a strong partner for *LISMA* because they embody the mission of *LISMA* to advocate for the comprehensive management of invasive species in the lakeshore area. They do this through both work on the ground and education, the perfect package.

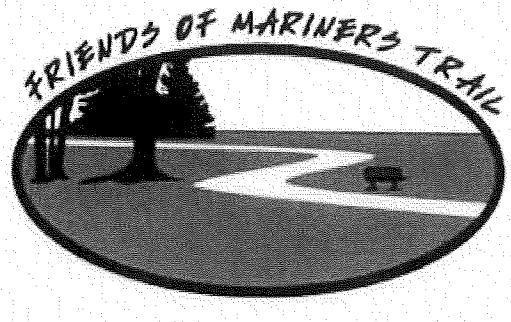
The steering team and partners of LISMA fully support this grant request and the project that Woodland Dunes proposes. We will do whatever we can to help and assist with this effort.

Respectfully,

Diane Schauer

AIS Coordinator & Steering Team member, Lakeshore Invasive Species Management Area

Lakeshore Invasive Species Management Area (LISMA)
P.O. Box 360
Two Rivers, WI 54241-0486
(920) 793-4007



January 24, 2014

Friends of Mariners Trail
P.O. Box 2341
Manitowoc, WI 54221

Dear DNR Representative,

Friend of Mariners Trail is a non-profit group that works with the cities of Two Rivers and Manitowoc and Manitowoc County to promote, support and help maintain Mariners Trial. Mariners Trail is a recreational trail that runs along the coast of Lake Michigan between the two above mentioned cities.

One of our most successful projects has been our flowerbed project. We have 46 different groups of gardeners who plant and care for gardens along the trail. We are interested in working with Woodland Dunes to learn more about appropriate native plants to put in our gardens; plants that will attract song birds. We also want to help with eliminating the invasive species that are overgrowing the area and moving into our flowerbed spaces.

We have seen the work done along the lake to get rid of phragmites, a huge problem for sure. That work needs to continue along with the control of phragmites in other nearby areas. Our group would like to partner with Woodland Dunes by providing man power when work days take place.

We endorse the work that Woodland Dunes is doing along the lakeshore and in nearby areas. Our organization truly sees the need to fund such work. Thank you for any help you will provide for the continued control of phragmites.

Judy Corrado,

Judy Corrado

President, Friends of Mariners Trail

State of Wisconsin DNR
DNR Department of Natural Resources
Water Permit Central Intake – attn. APM
PO Box 7185
Madison, WI 53707-7185

Chemical Aquatic Plant Control Application and Permit
Wisconsin Pollutant Discharge Elimination System (WPDES)
Pesticide Pollutant Permit Application

Form 3200-004 (R 03/13)

Notice: Use of this form is required by the Department for any application filed pursuant to s. 281.17(2), Wis. Stats., and Chapters NR 107, 200 and 205, Wis. Adm. Code. This permit application is required to request coverage for pollutant discharge into waters of the state. Personally identifiable information on this form may be provided to requesters to the extent required by Wisconsin's Open Records Law [ss. 19.31-19.39, Wis. Stats.].

DNR Use Only	
ID Number	Permit Expiration Date
Waterbody #	Fee Received

Section I – Applicant Information – Name of Permit Applicant. Also indicate names and addresses of all individuals, associations, communities or town sanitary districts sponsoring treatment. Attach additional sheets if necessary.

Home Address

Name: Jones Knickerbine - Woodland Dunes
Street Address: 3000 Hawthorne Ave P.O. Box 486
City: Two Rivers | State: WI | ZIP Code: 54241

Lake Address

Name:
Street Address:
City: | State: | ZIP Code:

Phone Number (include area code)
Primary: 920-793-4007 Secondary:

Email Address:

Section II – Aquatic Plant Control Location

Waterbody to be Treated (waterbody where treatment area is located): West Twin River & East Twin River

Lake Surface Area: acres

Estimated Surface Area that is 10 Feet or Less in Depth: acres

County: Manitowoc | Section: | Township: N | Range: ☐ E ☐ W

Latitude: | Longitude:

Is the waterbody a private pond? ☐ Yes ☒ No

Does the waterbody have public access? ☒ Yes ☐ No

Adjacent Riparian Property Owner Names (attach sheets if necessary)

1. See attachment please
2.
3.
4.
5.
6.
7.

Name of Lake Property Owners' Association Representative or Lake District Representative (if none, please indicate): NONE

Name of Applicator or Firm: Also please see attachment — Aquatic Solutions, LLC

Street or Route: P.O. Box 595

City: Manitowoc | State: WI | ZIP Code: 54220

County: Manitowoc | Phone Number (include area code): 920-755-3474

Email Address: aquasolutionsllc@gmail.com

Applicator Certification Number for Category 5 Aquatic Pesticide Application: 53064

Business Location License Number (if applicable): 14611-LA

Restricted Use Pesticide License Number (if applicable):

Area(s) Proposed for Control: (Note details in permit cover letter for final permitted sizes of treatment areas.)

	Treatment Length		Treatment Width		Estimated Acreage	Average Depth
A.	See attachment please	ft. X		ft. ÷ 43,560 ft.² =		ft.
B.		ft. X		ft. ÷ 43,560 ft.² =		ft.
C.		ft. X		ft. ÷ 43,560 ft.² =		ft.
D.		ft. X		ft. ÷ 43,560 ft.² =		ft.
E.		ft. X		ft. ÷ 43,560 ft.² =		ft.

Total Estimated Acres

Total from lines A - E:

Total from Attached Sheets:

Grand Total: 30 acres

If the estimated acreage is greater than 10 acres, or is greater than 10 percent of the estimated area 10 feet or less in depth in Section II, complete and attach Form 3200-004A, Large-Scale Treatment Worksheet. Private pond treatments are exempted from this requirement.

Is this area within or adjacent to a sensitive area designated by the Department of Natural Resources?

☐ Yes ☒ No

DNR Use:
NHI Review? ☐ Yes ☐ No Describe:

Section III – Fees

1. s. NR 107.11(1), Wis. Adm. Code, lists the conditions under which the permit fee is limited to the $20 minimum charge.
2. s. NR 107.11(4), Wis. Adm. Code, lists the uses that are exempt from permit requirements.
3. s. NR 107.04(2), Wis. Adm. Code, provides for a refund of acreage fees if the permit is denied or if no treatment occurs.
4. Fee calculations:

Basic Permit Fee (non-refundable) ..... $ 20.00

If proposed treatment is over 0.25 acre, calculate acreage fee:
(round up to nearest whole acre, to maximum of 50 acres.)

30 acres X $25 per acre = $ 750

If proposed treatment is ≤ 0.25 acre, acreage fee is $0.

Enter Acreage Fee (from above) 750

Total Fee Enclosed ..... $ 790

☒ **Site Map:** Attach a sketch or a printed map of lake indicating area and dimensions of each individual area where plant control is desired and flow of surface water outside treatment area. Also show location of property owners riparian to and adjacent to the treatment area. Attach a separate list of owners and corresponding treatment dimensions coded to the lake map, if necessary.

Section IV – Reasons for Aquatic Plant Control

Is this permit being requested in accordance with an approved Aquatic Plant Management Plan? ☒ Yes ☐ No

Treatment Type: ☐ Lake ☐ Pond ☒ Wetland ☐ Marina ☐ Other

Goal of Aquatic Plant Control:

- ☐ Reduce nuisance algae accumulation
- ☐ Maintain navigational channel for common use
- ☐ Maintain private access for boating
- ☐ Maintain private access for fishing
- ☐ Improve swimming
- ☐ Control of purple loosestrife
- ☒ Control of invasive exotics
- ☐ Other: _____

Nuisance Caused By:

- ☐ Algae
- ☒ Emergent water plants (majority of leaves and stems growing above water surface, e.g. cattails, bulrushes)
- ☐ Floating water plants (majority of leaves floating on water surface, e.g., waterlilies, duckweed)
- ☐ Submerged water plants (leaves and stems below water surface, flowering parts may be exposed, e.g., milfoil, coontail)
- ☐ Other: _____

List Target Plants

Phragmites

Note: Different plants require different chemicals for effective treatment. Do not purchase chemical before identifying plants.

Section V – Chemical Control

Alternatives to Chemical Control:	Feasible?	If No, Why Not?
1. Mechanical harvesting	☐ Yes ☒ No	Amount of labor plus:
2. Hand pulling	☐ Yes ☒ No	-location
3. Hand raking	☐ Yes ☒ No	-effectiveness
4. Hand cutting	☐ Yes ☒ No	-amount of Phragmites to treat
5. Sediment screens/covers	☐ Yes ☒ No	
6. Dredging	☐ Yes ☒ No	
7. Lake drawdown	☐ Yes ☒ No	
8. Nutrient controls in watershed	☐ Yes ☒ No	
9. Other: _____	☐ Yes ☐ No	

Note: If proposed treatment involves multiple properties, consider feasibility of EACH alternative for EACH property owner.

If you checked yes to any of the alternatives listed above, please explain your decision to use chemical controls:

Section V – Chemical Control (continued)

Trade Name of Proposed Chemical(s)

Habitat Cygnet Plus
Aquacat

Method of Application: broadspray from boat

Will surface water outflow and/or overflow be controlled to prevent chemical loss? ☐ Yes ☒ No

Have the proposed chemicals been permitted in a prior year on the proposed site? ☒ All ☐ Some ☐ None

What were the results of the treatment?

Successful control but not complete. Follow up treatment needed as well as treatment on new sites.

Note: Chemical fact sheets for aquatic pesticides used in Wisconsin are available from the Department of Natural Resources upon request.

Section VI – Applicant Responsibilities and Certification

1. The applicant has prepared a detailed map which shows the length, width and average depth of each area proposed for the control of rooted vegetation and the surface area in acres or square feet for each proposed algae treatment.
2. The applicant understands that the Department of Natural Resources may require supervision of any aquatic plant management project involving chemicals. Under s. NR 107.07, Wis. Adm. Code, supervision may include inspection of the proposed treatment area, chemicals and application equipment before, during or after treatment. The applicant is required to notify the regional office 4 working days in advance of each anticipated treatment with the date, time, location and size of treatment unless the Department waives this requirement. Do you request the Department to waive the advance notification requirement? ☒ Yes ☐ No
3. The applicant agrees to comply with all terms or conditions of this permit, if issued, as well as all provisions of Chapter NR 107, Wis. Adm. Code. The required application fee is attached.
4. The applicant has provided a copy of the current application to any affected property owners' association, inland lake district and, in the case of chemical applications for rooted aquatic plants, to all owners of property riparian or adjacent to the treatment area. The applicant has also provided a copy of the current chemical fact sheet for the chemicals proposed for use to any affected property owner's association or inland lake district.

☐ Check if you are signing as Agent for Applicant.

I hereby certify that the above information is true and correct and that copies of this application have been provided to the appropriate parties named in Section II and that the conditions of the permit and pesticide use will be adhered to.

James Kuckelman
Signature of Applicant

1/23/14
Date Signed

All portions of this permit, map and accompanying cover letter must be in possession of the chemical applicator at time of treatment. During treatment all provisions of Chapter NR 107, specifically ss. NR 107.07 and NR 107.08, Wis. Adm. Code, must be complied with, as well as the specific conditions contained in the permit cover letter.

Section VII – WPDES Permit Request

Is WPDES coverage being requested? Refer to http://dnr.wi.gov/topic/wastewater/aquaticpesticides.html for more information.

☒ No: ☒ Already have WPDES coverage until Sept. 2016
☐ WPDES coverage not needed

☐ Yes – complete section VII with signature

Select which permit you are requesting:
☐ WI-0064556-1 Aquatic Plants, Algae & Bacteria
☐ WI-0064564-1 Aquatic Animals
☐ WI-0064581-1 Mosquitoes & other Flying Insects

Indicate WPDES permitee responsible for the pollutant discharge: ☐ Applicator ☐ Sponsor

Do you expect the pest control activity will result in a detectable pollutant discharge to waters of the state beyond the treatment area boundary or a pollutant residual in waters of the state after the treatment project is completed? ☐ Yes ☐ No

If yes, identify the pollutant(s): _____

Are you planning to incorporate integrated pest management principles, as specified in the WPDES permit, into your pest control activity to minimize any pollutant residual or pollutant discharge beyond the treatment area? ☐ Yes ☐ No

Type of WPDES coverage being requested: ☐ One Treatment Site ☐ Statewide Coverage

For informational purposes, select areas of WI for most of your aquatic treatments: ☐ NW ☐ NE ☐ SW ☐ SE

Is WPDES coverage being requested for more than 1 year?

☐ Yes ☐ No If yes, the permittee will remain in "active" WPDES status until a Notice of Termination is submitted.

I hereby certify that I am the authorized representative (as specified in Ch. NR 205.07(1)(g), Wis. Adm. Code) of the pest treatment activity which is the subject of this permit application. I certify that the information contained in this form and attachments is, to the best of my knowledge, true, accurate and complete.

Signature of Authorized Representative _____ Printed Name _____ Date Signed _____

Section VIII – Permit to Carry Out Chemical Treatment (Leave Blank – DNR Use Only)

The foregoing application is approved. Permission is hereby granted to the applicant to chemically treat the waters described in the application during the season of 20 14 .

Application fee received?
☐ Yes ☐ No

Advance notification of treatment required?
☐ Yes ☐ No

State of Wisconsin
Department of Natural Resources
For the Secretary

By _____
Regional Director or Designee

Date Signed _____ Date Mailed _____

Please Note:

If you believe that you have a right to challenge this decision, you should know that Wisconsin statutes and administrative rules establish time periods within which requests to review Department decisions must be filed.

For judicial review of a decision pursuant to ss. 227.52 and 227.53, Wis. Stats., you have 30 days after the decision is mailed or otherwise served by the Department, to file your petition with the appropriate circuit court and serve the petition on the Department. Such a petition for judicial review shall name the Department of Natural Resources as the respondent.

This notice is provided pursuant to s. 227.48(2), Wis. Stats.

To request a contested case hearing pursuant to s. 227.42, Wis. Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to serve a petition for hearing on the Secretary of the Department of Natural Resources. The filing of a request for a contested case hearing is not a prerequisite for judicial review and does not extend the 30-day period for filing a petition for judicial review.

Additional Chemical Applicators

James Knickelbine
P.O. Box 486 Two Rivers, WI 54241
Manitowoc County 920-793-4007 nature@woodlanddunes.org
Certification number: will be certified in 2014

Jennifer Steltenpohl
P.O. Box 486 Two Rivers, WI 54241
Manitowoc County 920-793-4007 jenniferp@woodlanddunes.org
Certification number: 79432

Paul Klein
W7042 Lincoln Rd. Van Dyne, WI 54979 paulklein@charter.net
Fond du Lac County 920-688-3899
Certification number: 79755

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
2984 Shawano Avenue
Green Bay WI 54313-6727

Scott Walker, Governor
Cathy Stepp, Secretary
Telephone 608-266-2621
Toll Free 1-888-936-7463
TTY Access via relay - 711

January 10, 2014

Jennifer Powell
Woodland Dunes Nature Center and Preserve
PO Box 486
wo Rivers WI 54241

Subject: Phragmites Control Plan Approval

Dear Jennifer:

The Department has received and reviewed your Woodland Dunes/West Twin River and East Twin River Shoreline Management Plan for Phragmites 2014-2018. This letter is to inform you that the plan meets the criteria under Wisconsin Administrative Code NR 198.43 and therefore, your plan is approved. You are now eligible to submit an Aquatic Invasive Species Established Population Control grant application based on this approved plan.

Thank you for developing this thorough and well thought-out plan for controlling invasive *phragmites*.

Sincerely,

Mary Gansberg
Water Resources Management Specialist