

-Accession No.: 201901095132
-Docket(s) No.: P-2523-000
Submission ID: 945951
-Docket(s) No.: P-2523-000
-Filed By: North East Wisconsin Hydro, LLC
-Signed By: Melissa Rondou
-Submission Date/Time: 1/9/2019 3:32:06 PM
-Projected Filed Date/Time: 1/9/2019 3:32:06 PM



E-File Public Submission

January 9, 2019

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, DC 20426

Re: Oconto Falls Hydroelectric Project (FERC Project No. 2523)
North East Wisconsin Hydro, LLC
Proposed Amendment to the Approved Purple Loosestrife and Eurasian Watermilfoil Control Plan
License Article 407

Dear Secretary Bose,

The Wisconsin Department of Natural Resources (WDNR) has been encouraging licensees to modify their invasive species monitoring control plans to focus primarily on early detection of species that are newly invasive to Wisconsin. Based upon the WDNR recommendations, North East Wisconsin Hydro, LLC (NEW Hydro) has developed the enclosed proposed plan to focus primarily on early detection of species newly invasive to Wisconsin.

As required by the FERC license issued November 20, 1997, this proposed invasive species monitoring and control plan is intended to supersede the plan approved by FERC Order dated November 10, 1999, which originally only required annual monitoring for Purple Loosestrife and Eurasian Watermilfoil.

NEW Hydro consulted with the WDNR and the U.S. Fish and Wildlife Service on the proposed amendment to the approved plan. The consultation process is outlined in Section 13 of the proposed amendment. After consultation, NEW Hydro also modified the proposed plan (changes are high-lighted in yellow) to allow for the five-year comprehensive monitoring described in Section 6 and its reporting in Section 11 to be completed coincident with any future WDNR point-intercept monitoring on the WDNR five-year schedule. NEW Hydro also incorporated into the plan the 2017 point-intercept monitoring results.

If you have any questions, please contact Ms. Melissa Rondou at Eagle Creek Renewable Energy at (920) 293-4628 ext. 347 or by email melissa.rondou@eaglecreekre.com.

Sincerely,
North East Wisconsin Hydro, LLC

For 
Michael Scarzello
Regulatory Director

Enclosed: January 2019 Invasive Species Monitoring and Control Plan
Appendix D – 2017 Point-Intercept Monitoring Results (Excel Document)

Invasive Species Monitoring and Control Plan

Oconto Falls Hydroelectric Project

FERC Project No. 2523

**Oconto River
Oconto Falls, Wisconsin**

Prepared for



Neshkoro, Wisconsin

Prepared by



January 2019

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1. Introduction

On November 10, 1999, North East Wisconsin (NEW Hydro) received approval from the Federal Energy Regulatory Commission (FERC) on its Purple Loosestrife and Eurasian Watermilfoil Control Plan. The plan was developed per Article 407 of the Order Issuing Subsequent License dated May 18, 1999 for the Oconto Falls Hydroelectric Project (FERC Project No. 2523). Article 407 contained the following language:

Within 180 days of the date of the issuance of the license, the licensee shall develop and file with the Commission, for approval, a plan to monitor and control the spread of purple loosestrife (*Lythrum salicaria*) and Eurasian milfoil (*Myriophyllum spicatum*) in project waters.

The plan shall include, but not be limited to: (a) the method of monitoring, (b) the frequency of monitoring, (c) a provision to cooperate in the control/elimination of these vegetative species if deemed necessary by the agencies, and (d) documentation of transmission of monitoring data to the Wisconsin Department of Natural Resources (WDNR) and the U.S. Fish and Wildlife Service (FWS).

The licensee shall develop the plan in consultation with Wisconsin DNR and FWS. The licensee shall include with the plan documentation of consultation, copies of comments and recommendations on the completed plan after it has been prepared and provided to the agencies, and specific descriptions of how the agencies' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies to comment and make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the plan. Upon Commission approval, the licensee shall implement the plan, including any changes required by the Commission.

In 2017 consultation with the WDNR, the development of an updated plan that focused on early detection and rapid reporting was discussed. This change in approach was mentioned in the annual Purple loosestrife and Eurasian watermilfoil report submitted to the FERC on January 31, 2017. This change in approach allows the licensee and the WDNR to make a practical difference regarding the spread of invasive species at hydroelectric projects. Therefore, this plan is intended to supersede the previous plan.

2. Oconto Falls Hydroelectric Project Boundary Area

The Oconto Falls dam and reservoir is located on the Oconto River in Oconto Falls, Wisconsin.

The Oconto Falls reservoir has a surface area of approximately 166.5 acres at a normal surface elevation of 731.3 feet National Geodetic Vertical Datum (NGVD).

The reservoir areas contained within the hydroelectric project boundaries are depicted on the approved Exhibit G drawing included in Appendix A.

3. General Project Area Description

The Oconto Falls Hydroelectric Project is located on the Oconto River, in the City of Oconto Falls, in Oconto County Sections 21, 22, and 26, T28N, R19E. The City of Oconto Falls is a small community located in the south-central portion of Oconto County, approximately 16 miles east of the City of Oconto located on the Bay of Green Bay. Portions of the Oconto Falls Hydroelectric Project are in the Town of Oconto Falls.

Northeastern Wisconsin, including Oconto County, experiences a humid, continental-type of climate characterized by cold, snowy winters, and relatively short, warm summers. Changes in weather occur every few days, especially during the winter and spring months.

The region's climate is also characterized by moderately moist conditions. Average annual precipitation (including water content of snow) is approximately 30 inches. Typically, most of the precipitation falls during the growing season and June is the wettest month.

The terrain in the Oconto Falls area is gently sloping. Within the City of Oconto Falls, land generally slopes toward the shorelines of the reservoir and the Oconto River.

According to the 2010 U.S. Census, the City of Oconto Falls has a total population of 2,891.

4. Invasive Species Previously Identified Within the Project

Per the WDNR website: <http://dnr.wi.gov/lakes/lakepages/>, the following invasive species have been identified and verified within the hydroelectric project boundaries.

4.1 Eurasian watermilfoil

Eurasian watermilfoil was verified to occur in the reservoir in 2000.

4.2 Curly leaf pondweed

Curly leaf pondweed was verified to occur in the reservoir in 2013.

4.3 Flowering Rush

Flowering rush was verified to occur within the reservoir in 2013.

4.4 Chinese mystery snail

The Chinese mystery snail was verified to occur within the reservoir in 2013.

4.5 Yellow Iris

Yellow iris was verified to occur within the reservoir in 2014.

4.6 Zebra Mussel

Zebra mussels were verified to occur within the reservoir in 2005.

4.7 Purple loosestrife

Purple loosestrife has been previously identified in the hydroelectric project boundary. As of 2017, Galerucella beetle feeding is believed to be controlling the species.

4.8 Rapid response invasive species

Although not all are known to occur within the hydroelectric project boundaries, there are several aquatic invasive species in a list maintained by the WDNR (See Table 4-1 and Appendix B) (Rapid Response List). Additional diligence is required at access points to assure most of these species do not become established.

4.9 Future rapid response invasive species

Invasive species can be introduced to an area or region at any time; therefore, the Rapid Response List of aquatic invasive species within the hydroelectric project boundaries should be continually adjusted and updated accordingly. Rapid response invasive species will be added to the Rapid Response List for monitoring only if the species has been observed in Wisconsin or Michigan, is currently not common to the area or region, and early, limited control and detection will stop the species from spreading.

The WDNR will have the opportunity to add invasive species to the Rapid Response List during their review of and comments on the Monitoring Report, as described in Section 11. The WDNR may also

Invasive Species Previously Identified within the Projects

include additional invasive species to the Rapid Response List at any time outside the reporting schedule according to the restrictions described above.

Table 4-1. Additional Aquatic Invasive Species

Common Name	Scientific Name (<i>Genus species</i>)
European frog-bit	<i>Hydrocharis morsus-ranae</i>
Yellow floating heart	<i>Nymphoides peltata</i>
Water chestnut	<i>Trapa natans</i>
Brazilian waterweed	<i>Egeria densa</i>
Hydrilla	<i>Hydrilla verticillata</i>
Aquatic forget-me-not	<i>Myosotis scorpiodes</i>
Spiny naiad	<i>Najas marina</i>
Fanwort	<i>Cabomba caroliniana</i>
Parrot feather	<i>Myriophyllum aquaticum</i>
Water spinach	<i>Ipomoea aquatica</i>
Asian marshweed	<i>Limnophila sessiliflora</i>
Water hyacinth	<i>Eichornia crassipes</i> and <i>Eichornia azurea</i>
Indian swampweed	<i>Hygrophila polysperma</i>
Killer algae	<i>Caulerpa taxifolia</i>
Water lettuce	<i>Pistia stratiotes</i>
Flowering rush ¹	<i>Butomus umbrellatus</i>
Japanese hop	<i>Humulus japonicus</i>
Didymo	<i>Didymoshenia geminata</i>
Giant Salvinia	<i>Salvinia molesta</i>
Asian clam	<i>Iris psuedacorus</i>
Chinese mystery snail ²	<i>Cipangopaludina chinensis</i>
Banded mystery snail	<i>Viviparus georgianus</i>
Red swamp crayfish	<i>Procambarus clarkii</i>
Faucet snail	<i>Bithynia tentaculata</i>
Zebra mussel ³	<i>Dreissena polymorpha</i>
Yellow iris ⁴	<i>Iris pseudacorus</i>
Java waterdropwort	<i>Oenanthe javanica</i>
Quagga mussel	<i>Dreissena rostriformis</i>
Rusty crayfish	<i>Oronectes rusticus</i>
Brittle naiad	<i>Najas minor</i>
Floating marsh pennywort	<i>Hydrocotyle rananunculoides</i>
New Zealand mud snail	<i>Potamopyrgus antipodarum</i>
Spiny water flea	<i>Bythotrephes cederstroemi</i>
Duck lettuce	<i>Ottelia alismoides</i>
Curly-leaf pondweed ⁵	<i>Potamogeton crispus</i>
Malaysian trumpet snail	<i>Melanoides tuberculata</i>
Starry stonewort	<i>Nitellopsis obtusa</i>

¹ Flowering rush has already established themselves within the hydroelectric projects. Therefore, rapid response monitoring is no longer necessary.

² Chinese mystery snails have already established themselves within the hydroelectric projects. Therefore, rapid response monitoring is no longer necessary.

³ Zebra mussels have already established themselves within the hydroelectric projects. Therefore, rapid response monitoring is no longer necessary.

⁴ Yellow iris has already established themselves within the hydroelectric projects. Therefore, rapid response monitoring is no longer necessary.

⁵ Curly leaf pondweed has already been established within the hydroelectric projects. Therefore, rapid response monitoring is no longer necessary.

5. Rapid Response Monitoring

5.1 Project areas subject to rapid response monitoring

The following recreation facilities appearing in the approved recreation plan⁶ will be subject to monitoring for the species identified in the Rapid Response List (as updated):

- Lotter's Park
- East Side Beach
- East Side Boat Launch
- Project Tailrace Access
- West Side Beach

These recreation facilities are shown on the Exhibit G drawing found in Appendix A.

5.2 Rapid response monitoring schedule and methods

Rapid response monitoring for invasive species within the hydroelectric project boundaries will be completed every year beginning in 2020, per the following conditions:

- All monitoring will occur during the summer months of late July and August.
- All monitoring will be conducted by personnel familiar with the visual characteristics of the invasive species identified in the Rapid Response List.
- For spiny water fleas, NEW Hydro will collect a water sample at each of the four access points using a 54 µm net with two 2-meter tows in 5-10 feet of water. The samples will be sent to the WDNR invasive species coordinator for analysis. Water sample collection will be discontinued if the spiny water flea is detected in a sample.
- The other aquatic search methods will approximate the WDNR protocols as follows such that the intent is met. Each of the access sites will use rake sampling from a boat along 200' of shoreline and within 100' of the shore. Each area will be searched for 30 minutes and will also, within that time-frame, involve the over-turning of rocks in shallow water to attempt to identify invasive macro-invertebrates. Due to safety reasons, a boat will not be utilized for monitoring in the tailwater and the over-turning of rocks in the tailrace will only be completed if it is deemed safe to wade into the water.
- Monitoring for invasive species of mollusks, crustaceans, macro-invertebrates, or fish will be completed by observing the trash racks that screen the intakes. Throughout the year, powerhouse operations at the facilities require frequent cleaning of the trash racks using a special-purpose rake. Each cleaning event offers an opportunity to monitor for invasive mollusks, crustaceans, macro-invertebrates, and fish on entrained debris or the racks themselves. Any

⁶ Oakland Avenue Access site will not be monitored because it is not an improved access site. The WDOT Wayside Boat Launch site will not be monitored because of the riverine nature of this section of reservoir.

Section 5

Rapid Response Monitoring

stockpiled debris will be reviewed during the rapid response monitoring for the presence of invasive species⁷.

- WDNR data sheets will be populated with information for each new occurrence of an invasive species identified in the Rapid Response List (as updated).
- Data concerning the locations of new occurrences of invasive species identified in the Rapid Response List (as updated) will be collected using a handheld Global Positioning System (GPS).
- Monitoring of all current and future invasive species identified in the updated Rapid Response List shall only occur until a point at which the species becomes prevalent in the area or limited local control measures of areas contained within the hydroelectric project boundaries will no longer be instrumental to stop the spread of that invasive species.
- Section 11 describes the process for reporting of the results for the rapid response monitoring.

⁷ Due to the size of certain invasive mollusk species (faucet snail, New Zealand mud snail, Malaysian trumpet snail) and species such as spiny water flea, early identification will be unlikely and NEW Hydro has proposed collection of water samples to identify the presence of these species.

6. Five-Year Comprehensive Monitoring

To assist in the rapid response monitoring protocol, regular comprehensive monitoring of the entire project reservoir for invasive species is important. As a result, in the place of the rapid response monitoring described in Section 5, every five years beginning no later than in 2025, NEW Hydro will work with the WDNR to complete a survey of the entire reservoir on a point-intercept grid under a protocol like the survey completed in 2017. See Appendix D for the 2017 monitoring results. One of the five-year point-intercept monitors shall be a person accredited by the WDNR if they offer an accredited program. The survey will identify any aquatic invasive species listed on the updated Rapid Response List. It will also identify any Eurasian watermilfoil and curly leaf pondweed collected in the sample.

6.1 Sampling protocol

In late July or early August, sampling will be completed by boat using either pole mounted rake or rope mounted rake. One rake sample in safely accessible locations will be taken by lowering the rake to the bottom and drawing it to the surface slowly.

Any areas that are not safely accessible will be noted in the report with one of the following reasons:

- Non-navigable (due to thick emergent plant growth);
- Terrestrial (point-intercept located in an upland area);
- Shallow (too shallow to access by boat);
- Rocks;
- Dock;
- Swim area;
- Temporary obstacle (temporary obstacle should be noted);
- No information (accidentally missed or inaccessible-state reason); and
- Other (provide brief description).

The rake samples will be reviewed for the presence of invasive species included on the Rapid Response List.

6.2 Wisconsin Department of Natural Resources participation

The point-intercept grid will be supplied by the WDNR to NEW Hydro within one-year of plan approval. The same point-intercept grid will be utilized for all future five-year monitoring events. If the point-intercept grid is not provided by the WDNR, the point-intercept survey will not occur, and the annual rapid-response monitoring will replace the five-year monitoring effort.

Sixty days prior to the five-year monitoring, NEW Hydro will notify the WDNR and invite them to participate in the survey to collect information on other non-invasive aquatic species.

6.3 Information collection and reporting

For identification of species listed on the updated Rapid Response List, the information collected will be the same information required to be outlined on the WDNR data sheets discussed in Section 5.2 and the reporting will follow the reporting required for rapid response invasive species as outlined in Section 11.

Section 6
Five-Year Comprehensive Monitoring

For Eurasian watermilfoil and curly leaf pondweed, the presence or absence of these species in each sample collected at point intercept location will be confirmed and included in the five-year report as outlined in Section 11.

During the five-year survey effort, any existing plants of purple loosestrife will be checked for feeding by Galerucella beetles. If feeding is observed, it will be noted in the report. In the event feeding is not identified on any plants observed, the five-year report will propose a modified method to survey or control purple loosestrife in the future.

7. Purple Loosestrife and Eurasian Watermilfoil Monitoring

7.1 Purple loosestrife monitoring

Purple loosestrife has been historically prevalent in the project boundary. The January 31, 2017 report indicates the population is currently reduced due to a feeding population of *Galerucella* beetles.

Therefore, future monitoring and control for purple loosestrife is addressed as part of the five-year monitoring effort explained in Section 6.

7.2 Eurasian watermilfoil monitoring

Due to its prevalence, monitoring for Eurasian watermilfoil will be completed as part of the five-year monitoring protocol outlined in Section 6 and control is not recommended unless the WDNR places it on the Rapid Response List.

8. Measures to Increase Public Awareness of Invasive Species

NEW Hydro will undertake the following measures to increase public awareness of invasive species within the hydroelectric project boundaries:

- Display WDNR-provided invasive species signs at FERC-regulated recreation facilities.
- Assess the condition of existing WDNR-provided invasive species signs at FERC-regulated recreation facilities during scheduled monitoring activities. A new sign will be installed if replacement is warranted and the WDNR agrees to provide a replacement sign.

9. Management Practices to Prevent the Spread of Invasive Species

NEW Hydro will take precautions to prevent the spread of invasive species during transportation of equipment used for the operation and maintenance of its Oconto Falls Hydroelectric Project. Equipment used for Project purposes that contacts water on a regular basis will be decontaminated per the WDNR best management practices for the decontamination of boats, equipment, and gear to prevent the spread of aquatic invasive species between waters. Currently, the information can be found as follows:

<http://dnr.wi.gov/topic/invasives/disinfection.html>.

10. Control Measures

10.1 Rapid response species

Control measures shall only be recommended by the WDNR and implemented by NEW Hydro if limited local control of areas contained within the hydroelectric project boundaries can be instrumental to stop the spread of the invasive species throughout the area.

The WDNR shall be responsible for notifying and directing NEW Hydro to control for invasive species documented to occur within the hydroelectric project boundaries.

The need for any invasive species control measures will further be evaluated based on the availability, practicality, and cost versus benefits of the suitable control measures. In instances where established control measures will yield immediate benefits, NEW Hydro may initiate controls at their discretion. NEW Hydro will utilize suitable methods for all control activities. All control measures implemented by NEW Hydro shall be in accordance with technical assistance obtained through the procedure outlined in Section 12.

Implementation of control measures shall begin no earlier than 2020.

The total cost incurred by NEW Hydro for control measures in any given year shall not exceed a maximum value of \$1,000 in 2020⁸.

10.2 Purple loosestrife and Eurasian watermilfoil control

The control efforts on the part of NEW Hydro for Eurasian watermilfoil and purple loosestrife are outlined in Section 7.

⁸ Each year the maximum value will be increased by the published U.S. Department of Labor Bureau of Statistics Annual Consumer Price Index percent changes for All Urban Consumers (CPI-U) Midwest-Non-seasonal from the previous year. For example, the 2021 yearly maximum will be calculated by multiplying \$1,000 by the negative or positive percentage change from 2019 to 2020.

11. Reporting

In the event a new occurrence of an invasive species is identified during monitoring, the WDNR will be notified at invasive.species@wisconsin.gov as soon as possible, but no later than five working days after its discovery. The notification will also include pictures and submittal of the online WDNR reporting form.

An annual notification to the WDNR and the FERC with the date the monitoring was completed will be made by December 31st of each year.

During the year in which the five-year comprehensive monitoring is completed per Section 6 (beginning no later than 2025) and every five years thereafter, the notification will be expanded and replaced by a letter report due to the WDNR for a 30-day comment period by December 31st summarizing the following:

- A summary of the monitoring results conducted by NEW Hydro, any control activities implemented by NEW Hydro (if applicable), and any public communication undertaken by NEW Hydro.
- A spreadsheet showing the maximum annual cost to be incurred by NEW Hydro for the control of rapid response species and how the cost was calculated beginning in 2020.
- The results of the five-year comprehensive monitoring.
 - Results of Galerucella beetle feeding on purple loosestrife plants or plan for future purple loosestrife monitoring;
 - Point-intercepts that are not safely accessible and the reason(s);
 - Mapped locations of samples taken at point intercept locations found to be positive for the presence of Eurasian watermilfoil and curly leaf pondweed.

The letter report will also include completed WDNR forms for any new occurrences observed for invasive species identified in the updated Rapid Response List. The WDNR forms are included in Appendix D. Photographs of newly identified occurrences of invasive species, and the WDNR confirmation will also be included along with future recommendations for invasive species control.

If the WDNR modifies the reporting forms at any time in the future, they shall notify where or how NEW Hydro can obtain the updated forms. NEW Hydro will utilize the revised forms for future monitoring activities.

WDNR comments will be addressed and the letter report will be filed with the FERC by February 15 in the year following the completion of the five-year comprehensive monitoring per Section 6 (beginning no later than 2026).

12. Procedures for Obtaining Technical Assistance

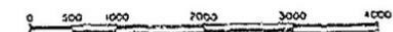
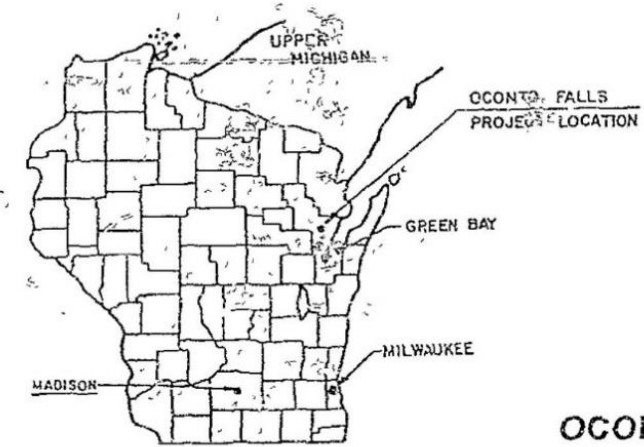
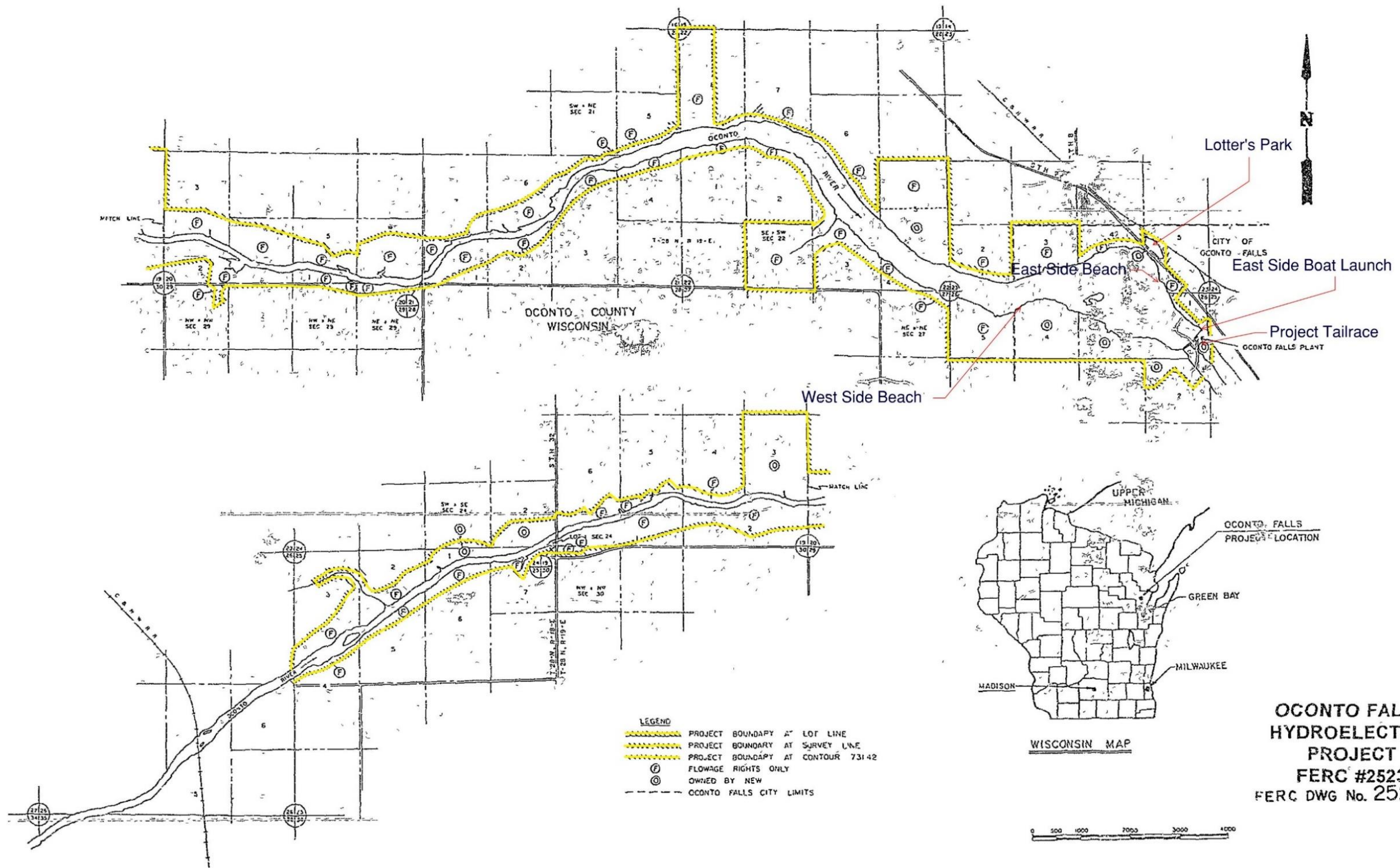
This Invasive Species Monitoring and Control Plan focuses on early identification and response for certain aquatic species. NEW Hydro will rely on the WDNR to provide them with the identifying factors for rapid response aquatic invasive species monitoring.

This plan primarily focuses on NEW Hydro's efforts to control species that are not already prevalent in the area and where early detection and control will have an impact on the prevalence of the invasive species in the area. Some control measures have the potential for negative impacts on aquatic communities and non-invasive species; therefore, NEW Hydro will seek technical assistance and consultation from control experts from the WDNR or the University of Wisconsin – Extension, as appropriate, prior to implementing any invasive species control measures.

13. Documentation of Consultation

Appendix E presents a summary of consultation between NEW Hydro, WDNR, and additional agencies during the development of this plan. The plan was sent for comments on November 26, 2018. The WDNR provided comments on November 27, 2018. The FWS did not provide comments. The plan has been amended to include an accredited surveyor for the five-year point-intercept survey. See Appendix E for documentation of consultation.

Appendix A. Exhibit G Drawing



Appendix B. Rapid Response Invasive Species

Selected Regulated Aquatic Invasive Species in WI



Floating water hyacinth
(*Eichhornia crassipes*)



Starry stonewort
(*Nitellopsis obtusa*)



Hydrilla
(*Hydrilla verticillata*)



Anchored water hyacinth
(*Eichhornia azurea*)



Water lettuce
(*Pistia stratiotes*)



Faucet snail
(*Bithynia tentaculata*)



European frog-bit
(*Hydrocharis morsus-ranae*)



Brittle naiad
(*Najas minor*)



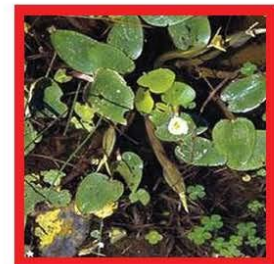
New Zealand mud snail
(*Potamopyrgus antipodorum*)



Spiny water flea
(*Bythotrephes cederstroemi*)



Malaysian trumpet snail
(*Melanoides tuberculata*)



Duck lettuce
(*Ottelia alismoides*)



Java waterdropwort
(*Oenanthe javanica*)



Quagga mussel
(*Dreissena rostriformis*)



Yellow floating heart
(*Nymphoides peltata*)



Brazilian waterweed
(*Egeria densa*)

Report any **prohibited** species as soon as possible by emailing: **Invasive.Species@wi.gov**.
This publication does not list all the regulated species. For the full list of Prohibited or Restricted species please visit:
www.dnr.wi.gov keyword: **invasives**



Asian clam
(*Corbicula fluminea*)



Floating marsh pennywort
(*Hydrocotyle ranunculoides*)



Didymo
(*Didymosphenia geminata*)



Giant salvinia
(*Salvinia molesta*)



Red swamp crayfish
(*Procambarus clarkii*)



Water spinach
(*Ipomoea aquatica*)



Killer algae
(*Caulerpa taxifolia*)



Asian marshweed
(*Limnophila sessiliflora*)



Indian swampweed
(*Myriophyllum polypersperma*)



Aquatic forget-me-not
(*Myosotis scorpioides*)



Spiny naiad
(*Najas marina*)



Curly-leaf pondweed
(*Potamogeton crispus*)



Zebra mussel
(*Dreissena polymorpha*)



Rusty crayfish
(*Orconectes rusticus*)



Chinese mystery snail
(*Cipangopaludina chinensis*)



Yellow Iris
(*Iris pseudacorus*)

Prohibited Species

Restricted Species

www.dnr.wi.gov keyword: **invasives**



Bureau of Science Services
Wisconsin Department of Natural Resources
P.O. Box 7921
Madison, WI 53707-7921

The Wisconsin Department of Natural Resources provides equal opportunity in its employment, programs, services, and functions under an Affirmative Action Plan. If you have any questions, please write to Equal Opportunity Office, Department of Interior, Washington, D.C. 20240. This publication is available in alternative format (large print, Braille, audio tape, etc.) upon request. Please call (608)266-0531 for more information. PUB-SS-1162 2016

Appendix C. WDNR Reporting Forms

The purpose of this form is to notify DNR of a new species of AIS in a waterbody. Only use if you found an aquatic invasive plant on a lake where it hasn't been found previously.

To find where aquatic invasives have already been found, visit: <http://dnr.wi.gov/lakes/ais>.

Notice: Information on this voluntary form is collected under ss. 33.02 and 281.11, Wis. Stats. Personally identifiable information collected on this form will be incorporated into the DNR Surface Water Integrated Monitoring System (SWIMS) Database. It is not intended to be used for any other purposes, but may be made available to requesters under Wisconsin's Open Records laws, ss. 19.32 - 19.39, Wis. Stats.

Primary Data Collector				
Name		Phone Number	Email	
Monitoring Location				
Waterbody Name		Township Name	County	
Boat Landing (if you only monitor at a boat landing)				
Date and Time of Monitoring or Discovery				
Monitoring Date	Start Time	End Time		
Information on the Aquatic Invasive Plant Found (Fill out one form for each species found.)				
Which aquatic invasive plant did you find?: ☐ Curly-leaf Pondweed ☐ Eurasian Water-milfoil ☐ Purple Loosestrife ☐ Brittle Naiad ☐ Hydrilla ☐ Brazilian Waterweed ☐ Yellow Floating Heart				
Where did you find the invasive plant?				
Latitude:		Longitude:		
Approximately how large an area do the plants occupy? ☐ A Few Plants ☐ One or a few beds ☐ Many beds ☐ A Whole Bay or Portion of Lake ☐ Widespread, covering most shallow areas of lake ☐ Don't know (e.g. didn't check the whole lake)				
Was the plant floating or rooted? ☐ Floating ☐ Rooted				
Estimated percent cover in the area where the invasive was found (optional)				
Substrate cobble, %	Substrate muck, %	Substrate boulders, %	Substrate sand, %	Bottom covered with plants, %
Voucher Sample				
Did you collect a sample of the plant (a voucher specimen) and bring it to your local DNR office? If so, which office?				
☐ Rhinelander	☐ Spooner	☐ Green Bay	☐ Oshkosh	☐ Did not take plant sample to a DNR office
☐ Fitchburg	☐ Waukesha	☐ Eau Claire	☐ Superior	☐ Other Office _____

Please collect up to 5-10 intact specimens. Try to get the root system, all leaves as well as seed heads and flowers when present. Place in ziplock bag with no water. Place on ice and transport to refrigerator. Bring samples, a copy of this form, along with a map showing where you found the suspect plants to your regional AIS or Citizen Lake Monitoring Coordinator at the DNR.

For DNR AIS Coordinator to fill out		
AIS Coordinator(s) or qualified field staff who verified the occurrence: _____		
Statewide taxonomic expert who verified the occurrence: _____ (for list see http://dnr.wi.gov/invasives/aquatic/whattodo/staff/AisVerificationExperts.pdf)		
Was the specimen confirmed as the species indicated above?	☐ Yes ☐ No	If no, what was it?
Herbarium where specimen is housed: _____	Herbarium Specimen ID: _____	
Have you entered the results of the voucher in SWIMS?	☐ Yes ☐ No	
AIS Coordinator: Please enter the incident report in SWIMS under the Incident Report project for the county the AIS was found in. Then, keep the paper copy for your records.		

Print...	Submit by Email	Clear Data
--------------------------	---------------------------------	----------------------------

State of Wisconsin
 Department of Natural Resources
 PO Box 7921, Madison WI 53707-7921
 dnr.wi.gov

Invasive Plant Report

Form 1700-056 (R 5/13)

Notice: Information provided on this form will be used in a statewide volunteer effort to locate, eradicate and monitor selected invasive plants. Your cooperation in reporting these species is much appreciated. Personal information collected may be provided to requesters to the extent required by Wisconsin's Open Records Law [ss. 19.31-19.39, Wis. Stats.].

Collection Information			
State	County	Date Collected / Observed	
Collector Name			
Address	City	State	ZIP Code
Phone Number	Email		

Characteristics & Location
Plant Name (Common and/or Latin name)
Size & density of infestation. Describe spread and estimate numbers.
Habitat description. Describe general habitat type such as forest interior, forest edge, old field, prairie, wetland, lakeshore, crop field, pasture, disturbed ground, urban setting type. Is it public or private land?

Location landmarks. Provide enough details so site can be found again. Note nearby landmarks such as city name, roads, intersections, driveways, lake edges and other natural and cultural features.

Geographic Coordinates (Pinpoint site using http://touchmap.com/latlong.html)
Complete one:
1. Latitude N Longitude W
2. UTM E N
3. Township N Range ☐ E ☐ W Section Part Section
4.
Specify other datum used (WGS 84, WI Transverse Mercator, etc.)

Submittal
Save document on your computer and send as an attachment, along with any photos to: Invasive.Species@wisconsin.gov
Mail specimen with this report form to: Invasive Plants Project Wisconsin DNR P.O. Box 7921 Madison, WI 53707-7921
Questions? Call (608) 267-5066 Website: http://dnr.wi.gov/topic/Invasives/

Aquatic Invasive Animal Incident Report

Form 3200-126 (R 02/10)

The purpose of this form is to notify DNR of a new species of AIS in a waterbody. Only use if you found an aquatic invasive species on a lake where it hasn't been found previously.

To find where aquatic invasives have already been found, visit: <http://dnr.wi.gov/lakes/ais>.

Notice: Information on this voluntary form is collected under ss. 33.02 and 281.11, Wis. Stats. Personally identifiable information collected on this form will be incorporated into the DNR Surface Water Integrated Monitoring System (SWIMS) Database. It is not intended to be used for any other purposes, but may be made available to requesters under Wisconsin's Open Records laws, ss. 19.32 - 19.39, Wis. Stats.

Primary Data Collector				
Name		Phone Number	Email	
Monitoring Location				
Waterbody Name		Township Name	County	Boat Landing (if you only monitor at a boat landing)
Date and Time of Monitoring or Discovery				
Monitoring Date	Start Time	End Time		
Information on the Aquatic Invasive Animal Found (Fill out one form for each species found.)				
Which aquatic invasive did you find? ☐ Zebra Mussel ☐ Quagga Mussel ☐ Spiny Waterflea ☐ Freshwater Jellyfish ☐ New Zealand Mud Snail ☐ Banded Mystery Snail ☐ Chinese Mystery Snail ☐ Rusty Crayfish ☐ Red Swamp Crayfish				
Where did you find the invasive animal?				
Latitude:		Longitude:		
Measurements from where the invasive was found (optional)				
Water Temperature		Degrees F / Degrees C (circle one)		Dissolved Oxygen (mg/l)
Estimated percent cover in the area where the invasive was found (optional)				
Substrate cobble, %	Substrate muck, %	Substrate boulders, %	Substrate sand, %	Bottom covered with plants, %
If you found Zebra Mussel(s)				
Water depth where Zebra Mussels were found _____			Feet / Meters (circle one)	
Total Number of Zebra Mussels Found _____				
What were the Zebra Mussels attached to?				
☐ Dock/pier ☐ Dam ☐ Rocks ☐ Plants ☐ Boats or Gear ☐ Plate Sampler(s) ☐ Logs, acorns, pine cones or other woody structure ☐ Other: _____				
Size of Largest Zebra Mussel Found		Size of Smallest Zebra Mussel Found (individual measurements on back of page)		
Voucher Sample				
Did you collect a sample (voucher specimen) and bring it to your local DNR office? If so, which office?				
☐ Rhinelander ☐ Spooner ☐ Green Bay ☐ Oshkosh ☐ Did not take sample to a DNR office ☐ Fitchburg ☐ Waukesha ☐ Eau Claire ☐ Superior ☐ Other Office: _____				

Please collect up to five specimens and bring a copy of this form, along with the sample and a map showing where you found the suspect invasive species to your regional AIS or Citizen Lake Monitoring Coordinator at the DNR.

While field collecting, specimens can easily be kept alive in a bucket or other container with just about 1/2 inch of water in the bottom. Freeze specimens at the end of the day in a ziploc bag without water. If freezing is not possible for a long period of time preservation in rubbing alcohol (except for Jellyfish - leave fully in water) is sufficient.

For DNR AIS Coordinator to fill out		
AIS Coordinator or qualified field staff who verified the occurrence: _____		
Statewide taxonomic expert who verified the occurrence: _____ (for list see http://dnr.wi.gov/invasives/aquatic/whattodo/staff/AisVerificationExperts.pdf)		
Was the specimen confirmed as the species indicated above?	☐ Yes ☐ No	If no, what was it?
Museum where specimen is housed:	Museum Specimen ID:	
Have you entered the results of the voucher in SWIMS?	☐ Yes ☐ No	
AIS Coordinator: Please enter the incident report in SWIMS under the Incident Report project for the county the AIS was found in. Then, keep the paper copy for your records.		

Aquatic Invasive Animal Incident Report

Form 3200-126 (R 02/10)

Page 2 of 2

Length of Zebra or Quagga Mussels from Sample (if applicable)

If more than 20 zebra or quagga mussels are found, measure 20 mussels chosen randomly from the sample. If less than 20 mussels are found, measure all mussels.

Number	Length (mm)
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	

Note: All initial discoveries should be placed in rubbing alcohol until verification by an expert is obtained.

Appendix D. 2017 Survey Results

Shawn Puzen

From: Nordin, Brenda L - DNR <Brenda.Nordin@wisconsin.gov>
Sent: Monday, November 13, 2017 1:41 PM
To: Melissa Rondou; Laatsch, Cheryl - DNR
Subject: Oconto Falls Plant survey results
Attachments: Oconto Falls Pond_Oconto_449300_(2017)_DNR NER.XLS

Follow Up Flag: Follow up
Flag Status: Flagged

Hi Melissa and Cheryl, the results from our survey this past summer is attached. If you click on the stat tab on the spreadsheet, you can see qualitatively and quantitatively how the individual plant species are represented. We generally do a plant survey every 5 years (or pre and post a control action), to evaluate changes that occur within the plant community. Feel free to give me a call if you have any questions or need an explanation of this, as is can be a little daunting to decipher.

We are committed to service excellence.

Visit our survey at <http://dnr.wi.gov/customersurvey> to evaluate how I did.

Brenda Nordin

Lake Biologist – WatershedBureau/Water Resources
Wisconsin Department of Natural Resources
647 Lakeland Road Shawano, WI 54166
Phone: 920-360-3167
Brenda.Nordin@wi.gov



The data is enclosed in an Excel Spreadsheet e-filed as a separate file.

Appendix E. Documentation of Consultation

Shawn Puzen

From: Shawn Puzen
Sent: Monday, November 26, 2018 2:55 PM
To: cheryl.laatsch@wisconsin.gov; Utrup, Nick
Cc: Melissa Rondou; Shawn Puzen
Subject: Request for Comments on Oconto Falls Invasive Species Monitoring Plan Amendment
Attachments: 2018-11-26 WDNR FWS Letter Amending EWM and PL Control Plan.pdf; 20181126 Invasive Species Plan sent to WDNR FWS.pdf

Hi Nick and Cheryl,

Attached is a cover letter requesting your comments on the attached proposed Invasive Species Monitoring and Control Plan for Oconto Falls.

Please feel free to contact me with any questions.

Thanks,

Shawn Puzen | FERC Licensing & Compliance
Mead & Hunt | 1702 Lawrence Drive | De Pere, WI 54115
Direct: 920-593-6865 | Mobile: 920-639-2480
shawn.puzen@meadhunt.com | meadhunt.com
<https://www.linkedin.com/in/shawnpuzen>



E-File Public Submission

November 26, 2018

Ms. Cheryl Laatsch
Statewide FERC Coordinator
Wisconsin Department of Natural Resources

Mr. Nick Utrup
Hydropower Coordinator
U.S. Fish and Wildlife Service

Re: Oconto Falls Hydroelectric Project (FERC Project No. 2523)
North East Wisconsin Hydro, LLC
Proposed Amendment to the Approved Purple Loosestrife and Eurasian Watermilfoil Control Plan

Dear Cheryl and Nick,

North East Wisconsin Hydro, LLC (NEW Hydro) received an Order Approving and Modifying a Purple Loosestrife and Eurasian Watermilfoil Control Plan Order on November 10, 1999 from the Federal Energy Regulatory Commission (FERC). The approved plan required annual monitoring for purple loosestrife and Eurasian watermilfoil.

Based upon discussions regarding other invasive species monitoring and control plans for other hydroelectric projects in Wisconsin, NEW Hydro has developed the enclosed revised plan to focus primarily on early detection of species newly invasive to Wisconsin. As required by the FERC license, this revised invasive species monitoring and control plan focuses on lands and water enclosed within the hydroelectric project boundary. This revised plan is intended to supersede the plan approved by FERC Order dated November 10, 1999.

NEW Hydro is formally requesting your comments on the proposed amendment to the approved plan. Please provide your comments within 30 days of this request. If comments are not obtained within 30 days, NEW Hydro will assume you do not have any comments.

If you have any questions, please contact Ms. Melissa Rondou at Eagle Creek Renewable Energy at (920) 293-4628 ext. 347 or by email melissa.rondou@eaglecreekre.com.

Sincerely,
North Eastern Wisconsin Hydro, LLC

For 
Michael Scarzello
Regulatory Director

Eagle Creek Renewable Energy
116 N. State Street, PO Box 167, Neshkoro, WI 54960-0167
Tel: 920-293-4628 – Fax: 920-293-8087
www.eaglecreekre.com

Invasive Species Monitoring and Control Plan

DRAFT

Oconto Falls Hydroelectric Project

FERC Project No. 2523

**Oconto River
Oconto Falls, Wisconsin**

Prepared for



Neshkoro, Wisconsin

Prepared by



www.meadhunt.com

December 2018

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1. Introduction

On November 10, 1999, North East Wisconsin (NEW Hydro) received approval from the Federal Energy Regulatory Commission (FERC) on its Purple Loosestrife and Eurasian Watermilfoil Control Plan. The plan was developed per Article 407 of the Order Issuing Subsequent License dated May 18, 1999 for the Oconto Falls Hydroelectric Project (FERC Project No. 2523). Article 407 contained the following language:

Within 180 days of the date of the issuance of the license, the licensee shall develop and file with the Commission, for approval, a plan to monitor and control the spread of purple loosestrife (*Lythrum salicaria*) and Eurasian milfoil (*Myriophyllum spicatum*) in project waters.

The plan shall include, but not be limited to: (a) the method of monitoring, (b) the frequency of monitoring, (c) a provision to cooperate in the control/elimination of these vegetative species if deemed necessary by the agencies, and (d) documentation of transmission of monitoring data to the Wisconsin Department of Natural Resources (WDNR) and the U.S. Fish and Wildlife Service (FWS).

The licensee shall develop the plan in consultation with Wisconsin DNR and FWS. The licensee shall include with the plan documentation of consultation, copies of comments and recommendations on the completed plan after it has been prepared and provided to the agencies, and specific descriptions of how the agencies' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies to comment and make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the plan. Upon Commission approval, the licensee shall implement the plan, including any changes required by the Commission.

In 2017 consultation with the WDNR, the development of an updated plan that focused on early detection and rapid reporting was discussed. This change in approach was mentioned in the annual Purple loosestrife and Eurasian watermilfoil report submitted to the FERC on January 31, 2017. This change in approach allows the licensee and the WDNR to make a practical difference regarding the spread of invasive species at hydroelectric projects. Therefore, this plan is intended to supersede the previous plan.

2. Oconto Falls Hydroelectric Project Boundary Area

The Oconto Falls dam and reservoir is located on the Oconto River in Oconto Falls, Wisconsin.

The Oconto Falls reservoir has a surface area of approximately 166.5 acres at a normal surface elevation of 731.3 feet National Geodetic Vertical Datum (NGVD).

The reservoir areas contained within the hydroelectric project boundaries are depicted on the approved Exhibit G drawing included in Appendix A.

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3. General Project Area Description

The Oconto Falls Hydroelectric Project is located on the Oconto River, in the City of Oconto Falls, in Oconto County Sections 21, 22, and 26, T28N, R19E. The City of Oconto Falls is a small community located in the south-central portion of Oconto County, approximately 16 miles east of the City of Oconto located on the Bay of Green Bay. Portions of the Oconto Falls Hydroelectric Project are in the Town of Oconto Falls.

Northeastern Wisconsin, including Oconto County, experiences a humid, continental-type of climate characterized by cold, snowy winters, and relatively short, warm summers. Changes in weather occur every few days, especially during the winter and spring months.

The region's climate is also characterized by moderately moist conditions. Average annual precipitation (including water content of snow) is approximately 30 inches. Typically, most of the precipitation falls during the growing season and June is the wettest month.

The terrain in the Oconto Falls area is gently sloping. Within the City of Oconto Falls, land generally slopes toward the shorelines of the reservoir and the Oconto River.

According to the 2010 U.S. Census, the City of Oconto Falls has a total population of 2,891.

Invasive Species Previously Identified within the Projects

4. Invasive Species Previously Identified Within the Project

Per the WDNR website: <http://dnr.wi.gov/lakes/lakepages/>, the following invasive species have been identified and verified within the hydroelectric project boundaries.

4.1 Eurasian watermilfoil

Eurasian watermilfoil was verified to occur in the reservoir in 2000.

4.2 Curly leaf pondweed

Curly leaf pondweed was verified to occur in the reservoir in 2013.

4.3 Flowering Rush

Flowering rush was verified to occur within the reservoir in 2013.

4.4 Chinese mystery snail

The Chinese mystery snail was verified to occur within the reservoir in 2013.

4.5 Yellow Iris

Yellow iris was verified to occur within the reservoir in 2014.

4.6 Zebra Mussel

Zebra mussels were verified to occur within the reservoir in 2005.

4.7 Purple loosestrife

Purple loosestrife has been previously identified in the hydroelectric project boundary. As of 2017, Galerucella beetle feeding is believed to be controlling the species.

4.8 Rapid response invasive species

Although not all are known to occur within the hydroelectric project boundaries, there are several aquatic invasive species in a list maintained by the WDNR (See Table 4-1 and Appendix B) (Rapid Response List). Additional diligence is required at access points to assure most of these species do not become established.

4.9 Future rapid response invasive species

Invasive species can be introduced to an area or region at any time; therefore, the Rapid Response List of aquatic invasive species within the hydroelectric project boundaries should be continually adjusted and updated accordingly. Rapid response invasive species will be added to the Rapid Response List for monitoring only if the species has been observed in Wisconsin or Michigan, is currently not common to the area or region, and early, limited control and detection will stop the species from spreading.

The WDNR will have the opportunity to add invasive species to the Rapid Response List during their review of and comments on the Monitoring Report, as described in Section 11. The WDNR may also

Section 4

Invasive Species Previously Identified within the Projects

include additional invasive species to the Rapid Response List at any time outside the reporting schedule according to the restrictions described above.

Table 4-1. Additional Aquatic Invasive Species

Common Name	Scientific Name (<i>Genus species</i>)
European frog-bit	<i>Hydrocharis morsus-ranae</i>
Yellow floating heart	<i>Nymphoides peltata</i>
Water chestnut	<i>Trapa natans</i>
Brazilian waterweed	<i>Egeria densa</i>
Hydrilla	<i>Hydrilla verticillata</i>
Aquatic forget-me-not	<i>Myosotis scorpiodes</i>
Spiny naiad	<i>Najas marina</i>
Fanwort	<i>Cabomba caroliniana</i>
Parrot feather	<i>Myriophyllum aquaticum</i>
Water spinach	<i>Ipomoea aquatica</i>
Asian marshweed	<i>Limnophylla sessiliflora</i>
Water hyacinth	<i>Eichornia crassipes and Eichornia azurea</i>
Indian swampweed	<i>Hygrophila polysperma</i>
Killer algae	<i>Caulerpa taxifolia</i>
Water lettuce	<i>Pistia stratiotes</i>
Flowering rush ¹	<i>Butomus umbrellatus</i>
Japanese hop	<i>Humulus japonicus</i>
Didymo	<i>Didymosphenia geminata</i>
Giant Salvinia	<i>Salvinia molesta</i>
Asian clam	<i>Iris pseudacorus</i>
Chinese mystery snail ²	<i>Cipangopaludina chinensis</i>
Banded mystery snail	<i>Viviparus georgianus</i>
Red swamp crayfish	<i>Procambarus clarkii</i>
Faucet snail	<i>Bithynia tentaculata</i>
Zebra mussel ³	<i>Dreissena polymorpha</i>
Yellow iris ⁴	<i>Iris pseudacorus</i>
Java waterdropwort	<i>Oenanthe javanica</i>
Quagga mussel	<i>Dreissena rostriformis</i>
Rusty crayfish	<i>Oronectes rusticus</i>
Brittle naiad	<i>Najas minor</i>
Floating marsh pennywort	<i>Hydrocotyle ranunculoides</i>
New Zealand mud snail	<i>Potamopyrgus antipodarum</i>
Spiny water flea	<i>Bythotrephes cederstroemi</i>
Duck lettuce	<i>Ottelia alismoides</i>
Curly-leaf pondweed ⁵	<i>Potamogeton crispus</i>
Malaysian trumpet snail	<i>Melanooides tuberculata</i>
Starry stonewort	<i>Nitellopsis obtusa</i>

¹ Flowering rush has already established themselves within the hydroelectric projects. Therefore, rapid response monitoring is no longer necessary.

² Chinese mystery snails have already established themselves within the hydroelectric projects. Therefore, rapid response monitoring is no longer necessary.

³ Zebra mussels have already established themselves within the hydroelectric projects. Therefore, rapid response monitoring is no longer necessary.

⁴ Yellow iris has already established themselves within the hydroelectric projects. Therefore, rapid response monitoring is no longer necessary.

⁵ Curly leaf pondweed has already been established within the hydroelectric projects. Therefore, rapid response monitoring is no longer necessary.

5. Rapid Response Monitoring

5.1 Project areas subject to rapid response monitoring

The following recreation facilities appearing in the approved recreation plan⁶ will be subject to monitoring for the species identified in the Rapid Response List (as updated):

- Lotter's Park
- East Side Beach
- East Side Boat Launch
- Project Tailrace Access
- West Side Beach

These recreation facilities are shown on the Exhibit G drawing found in Appendix A.

5.2 Rapid response monitoring schedule and methods

Rapid response monitoring for invasive species within the hydroelectric project boundaries will be completed every year beginning in 2020, per the following conditions:

- All monitoring will occur during the summer months of late July and August.
- All monitoring will be conducted by personnel familiar with the visual characteristics of the invasive species identified in the Rapid Response List.
- For spiny water fleas, NEW Hydro will collect a water sample at each of the four access points using a 54 µm net with two 2-meter tows in 5-10 feet of water. The samples will be sent to the WDNR invasive species coordinator for analysis. Water sample collection will be discontinued if the spiny water flea is detected in a sample.
- The other aquatic search methods will approximate the WDNR protocols as follows such that the intent is met. Each of the access sites will use rake sampling from a boat along 200' of shoreline and within 100' of the shore. Each area will be searched for 30 minutes and will also, within that time-frame, involve the over-turning of rocks in shallow water to attempt to identify invasive macro-invertebrates. Due to safety reasons, a boat will not be utilized for monitoring in the tailwater and the over-turning of rocks in the tailrace will only be completed if it is deemed safe to wade into the water.
- Monitoring for invasive species of mollusks, crustaceans, macro-invertebrates, or fish will be completed by observing the trash racks that screen the intakes. Throughout the year, powerhouse operations at the facilities require frequent cleaning of the trash racks using a special-purpose rake. Each cleaning event offers an opportunity to monitor for invasive mollusks, crustaceans, macro-invertebrates, and fish on entrained debris or the racks themselves. Any

⁶ Oakland Avenue Access site will not be monitored because it is not an improved access site. The WDOT Wayside Boat Launch site will not be monitored because of the riverine nature of this section of reservoir.

Section 5 Rapid Response Monitoring

stockpiled debris will be reviewed during the rapid response monitoring for the presence of invasive species⁷.

- WDNR data sheets will be populated with information for each new occurrence of an invasive species identified in the Rapid Response List (as updated).
- Data concerning the locations of new occurrences of invasive species identified in the Rapid Response List (as updated) will be collected using a handheld Global Positioning System (GPS).
- Monitoring of all current and future invasive species identified in the updated Rapid Response List shall only occur until a point at which the species becomes prevalent in the area or limited local control measures of areas contained within the hydroelectric project boundaries will no longer be instrumental to stop the spread of that invasive species.
- Section 11 describes the process for reporting of the results for the rapid response monitoring.

⁷ Due to the size of certain invasive mollusk species (faucet snail, New Zealand mud snail, Malaysian trumpet snail) and species such as spiny water flea, early identification will be unlikely and NEW Hydro has proposed collection of water samples to identify the presence of these species.

6. Five-Year Comprehensive Monitoring

To assist in the rapid response monitoring protocol, regular comprehensive monitoring of the entire project reservoir for invasive species is important. As a result, in the place of the rapid response monitoring described in Section 5, every five years beginning no later than in 2023, NEW Hydro will work with the WDNR to complete a survey of the entire reservoir on a point-intercept grid. The survey will identify any aquatic invasive species listed on the updated Rapid Response List. It will also identify any Eurasian watermilfoil and curly leaf pondweed collected in the sample.

6.1 Sampling protocol

In late July or early August, sampling will be completed by boat using either pole mounted rake or rope mounted rake. One rake sample in safely accessible locations will be taken by lowering the rake to the bottom and drawing it to the surface slowly.

Any areas that are not safely accessible will be noted in the report with one of the following reasons:

- Non-navigable (due to thick emergent plant growth);
- Terrestrial (point-intercept located in an upland area);
- Shallow (too shallow to access by boat);
- Rocks;
- Dock;
- Swim area;
- Temporary obstacle (temporary obstacle should be noted);
- No information (accidentally missed or inaccessible-state reason); and
- Other (provide brief description).

The rake samples will be reviewed for the presence of invasive species included on the Rapid Response List.

6.2 Wisconsin Department of Natural Resources participation

The point-intercept grid will be supplied by the WDNR to NEW Hydro within one-year of plan approval. The same point-intercept grid will be utilized for all future five-year monitoring events. If the point-intercept grid is not provided by the WDNR, the point-intercept survey will not occur, and the annual rapid-response monitoring will replace the five-year monitoring effort.

Sixty days prior to the five-year monitoring, NEW Hydro will notify the WDNR and invite them to participate in the survey to collect information on other non-invasive aquatic species.

6.3 Information collection and reporting

For identification of species listed on the updated Rapid Response List, the information collected will be the same information required to be outlined on the WDNR data sheets discussed in Section 5.2 and the reporting will follow the reporting required for rapid response invasive species as outlined in Section 11.

For Eurasian watermilfoil and curly leaf pondweed, the presence or absence of these species in each sample collected at point intercept location will be confirmed and included in the five-year report as outlined in Section 11.

Section 6
Five-Year Comprehensive Monitoring

During the five-year survey effort, any existing plants of purple loosestrife will be checked for feeding by *Galerucella* beetles. If feeding is observed, it will be noted in the report. In the event feeding is not identified on any plants observed, the five-year report will propose a modified method to survey or control purple loosestrife in the future.

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7. Purple Loosestrife and Eurasian Watermilfoil Monitoring

7.1 Purple loosestrife monitoring

Purple loosestrife has been historically prevalent in the project boundary. The January 31, 2017 report indicates the population is currently reduced due to a feeding population of *Galerucella* beetles. Therefore, future monitoring and control for purple loosestrife is addressed as part of the five-year monitoring effort explained in Section 6.

7.2 Eurasian watermilfoil monitoring

Due to its prevalence, monitoring for Eurasian watermilfoil will be completed as part of the five-year monitoring protocol outlined in Section 6 and control is not recommended unless the WDNR places it on the Rapid Response List.

8. Measures to Increase Public Awareness of Invasive Species

NEW Hydro will undertake the following measures to increase public awareness of invasive species within the hydroelectric project boundaries:

- Display WDNR-provided invasive species signs at FERC-regulated recreation facilities.
- Assess the condition of existing WDNR-provided invasive species signs at FERC-regulated recreation facilities during scheduled monitoring activities. A new sign will be installed if replacement is warranted and the WDNR agrees to provide a replacement sign.

9. Management Practices to Prevent the Spread of Invasive Species

NEW Hydro will take precautions to prevent the spread of invasive species during transportation of equipment used for the operation and maintenance of its Oconto Falls Hydroelectric Project. Equipment used for Project purposes that contacts water on a regular basis will be decontaminated per the WDNR best management practices for the decontamination of boats, equipment, and gear to prevent the spread of aquatic invasive species between waters. Currently, the information can be found as follows:

<http://dnr.wi.gov/topic/invasives/disinfection.html>.

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10. Control Measures

10.1 Rapid response species

Control measures shall only be recommended by the WDNR and implemented by NEW Hydro if limited local control of areas contained within the hydroelectric project boundaries can be instrumental to stop the spread of the invasive species throughout the area.

The WDNR shall be responsible for notifying and directing NEW Hydro to control for invasive species documented to occur within the hydroelectric project boundaries.

The need for any invasive species control measures will further be evaluated based on the availability, practicality, and cost versus benefits of the suitable control measures. In instances where established control measures will yield immediate benefits, NEW Hydro may initiate controls at their discretion. NEW Hydro will utilize suitable methods for all control activities. All control measures implemented by NEW Hydro shall be in accordance with technical assistance obtained through the procedure outlined in Section 12.

Implementation of control measures shall begin no earlier than 2020.

The total cost incurred by NEW Hydro for control measures in any given year shall not exceed a maximum value of \$1,000 in 2020⁸.

10.2 Purple loosestrife and Eurasian watermilfoil control

The control efforts on the part of NEW Hydro for Eurasian watermilfoil and purple loosestrife are outlined in Section 7.

⁸ Each year the maximum value will be increased by the published U.S. Department of Labor Bureau of Statistics Annual Consumer Price Index percent changes for All Urban Consumers (CPI-U) Midwest-Non-seasonal from the previous year. For example, the 2021 yearly maximum will be calculated by multiplying \$1,000 by the negative or positive percentage change from 2019 to 2020.

11. Reporting

In the event a new occurrence of an invasive species is identified during monitoring, the WDNR will be notified at invasive.species@wisconsin.gov as soon as possible, but no later than five working days after its discovery. The notification will also include pictures and submittal of the online WDNR reporting form.

An annual notification to the WDNR and the FERC with the date the monitoring was completed will be made by December 31st of each year.

Beginning no later than 2025 and every five years thereafter, the notification will be expanded and replaced by a letter report due to the WDNR for a 30-day comment period by December 31st summarizing the following:

- A summary of the monitoring results conducted by NEW Hydro, any control activities implemented by NEW Hydro (if applicable), and any public communication undertaken by NEW Hydro.
- A spreadsheet showing the maximum annual cost to be incurred by NEW Hydro for the control of rapid response species and how the cost was calculated beginning in 2020.
- The results of the five-year comprehensive monitoring.
 - Results of *Galerucella* beetle feeding on purple loosestrife plants or plan for future purple loosestrife monitoring;
 - Point-intercepts that are not safely accessible and the reason(s);
 - Mapped locations of samples taken at point intercept locations found to be positive for the presence of Eurasian watermilfoil and curly leaf pondweed.

The letter report will also include completed WDNR forms for any new occurrences observed for invasive species identified in the updated Rapid Response List. The WDNR forms are included in Appendix D. Photographs of newly identified occurrences of invasive species, and the WDNR confirmation will also be included along with future recommendations for invasive species control.

If the WDNR modifies the reporting forms at any time in the future, they shall notify where or how NEW Hydro can obtain the updated forms. NEW Hydro will utilize the revised forms for future monitoring activities.

WDNR comments will be addressed and the letter report will be filed with the FERC by February 15 every five years beginning no later than 2026.

12. Procedures for Obtaining Technical Assistance

This Invasive Species Monitoring and Control Plan focuses on early identification and response for certain aquatic species. NEW Hydro will rely on the WDNR to provide them with the identifying factors for rapid response aquatic invasive species monitoring.

This plan primarily focuses on NEW Hydro's efforts to control species that are not already prevalent in the area and where early detection and control will have an impact on the prevalence of the invasive species in the area. Some control measures have the potential for negative impacts on aquatic communities and non-invasive species; therefore, NEW Hydro will seek technical assistance and consultation from control experts from the WDNR or the University of Wisconsin – Extension, as appropriate, prior to implementing any invasive species control measures.

13. Documentation of Consultation

Appendix D presents a summary of consultation between NEW Hydro, WDNR, and additional agencies during the development of this plan. The WDNR provided comments on XXXXX. The FWS provided comments on XXXXX. A conference call was held with the WDNR on XXXXX to come to resolution on the comments. The comments have been addressed in the plan and responded to in Appendix D.

DRAFT

The appendices of the draft plan submitted for agency comment have not been reproduced here for file sizing purposes.

Wisconsin Department of Natural Resources Comments.

Shawn Puzen

From: Laatsch, Cheryl - DNR <Cheryl.Laatsch@wisconsin.gov>
Sent: Wednesday, November 28, 2018 9:31 AM
To: Melissa Rondou; Shawn Puzen
Subject: FW: REVIEW REQUESTED FW: Request for Comments on Oconto Falls Invasive Species Monitoring Plan Amendment

See Brendas comments below. No concerns. Brenda and I will connect with Melissa about the training. Thanks

We are committed to service excellence.

Visit our survey at <http://dnr.wi.gov/customersurvey> to evaluate how I did.

Cheryl Laatsch
Statewide FERC Coordinator
Bureau of Environmental Analysis and Sustainability
Wisconsin Dept of Natural Resources
N7725 Hwy 28
Horicon WI 53032
(T) 920-387-7869 (Fax) 920-387-7888
Cheryl.Laatsch@wisconsin.gov



From: Nordin, Brenda L - DNR
Sent: Tuesday, November 27, 2018 3:11 PM
To: Laatsch, Cheryl - DNR ; Hudak, Andrew J - DNR
Subject: RE: REVIEW REQUESTED FW: Request for Comments on Oconto Falls Invasive Species Monitoring Plan Amendment

I don't have any concerns on my end. We are in the process of making an accredited point Intercept surveyor program, so the person doing the surveys for the point Intercept survey will need to attend this. I think this is still a ways out, but should be in place the next time they're dur for a plant survey.

We are committed to service excellence.

Visit our survey at <http://dnr.wi.gov/customersurvey> to evaluate how I did.

Brenda Nordin
Phone: 920-360-3167
Brenda.Nordin@wi.gov

From: Laatsch, Cheryl - DNR
Sent: Monday, November 26, 2018 3:08 PM
To: Nordin, Brenda L - DNR <Brenda.Nordin@wisconsin.gov>; Hudak, Andrew J - DNR <Andrew.Hudak@wisconsin.gov>
Subject: REVIEW REQUESTED FW: Request for Comments on Oconto Falls Invasive Species Monitoring Plan Amendment
Importance: High

Hi – Please review the attached materials. Please have comments back to me by Monday Dec 10th. Thanks

We are committed to service excellence.

Visit our survey at <http://dnr.wi.gov/customersurvey> to evaluate how I did.

Cheryl Laatsch
Statewide FERC Coordinator
Bureau of Environmental Analysis and Sustainability
Wisconsin Dept of Natural Resources
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Cheryl.laatsch@wisconsin.gov



From: Shawn Puzen <Shawn.Puzen@meadhunt.com>

Sent: Monday, November 26, 2018 2:55 PM

To: Laatsch, Cheryl - DNR <Cheryl.Laatsch@wisconsin.gov>; Utrup, Nick <nick_utrup@fws.gov>

Cc: Melissa Rondou <melissa.rondou@eaglecreekre.com>; Shawn Puzen <Shawn.Puzen@meadhunt.com>

Subject: Request for Comments on Oconto Falls Invasive Species Monitoring Plan Amendment

Hi Nick and Cheryl,

Attached is a cover letter requesting your comments on the attached proposed Invasive Species Monitoring and Control Plan for Oconto Falls.

Please feel free to contact me with any questions.

Thanks,

Shawn Puzen | FERC Licensing & Compliance

Mead & Hunt | 1702 Lawrence Drive | De Pere, WI 54115

Direct: 920-593-6865 | Mobile: 920-639-2480

shawn.puzen@meadhunt.com | meadhunt.com

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The U.S. Fish and Wildlife Service did not respond with comments.