Wisconsin Public Service Corporation
700 North Adams Street
P.O. Box 19001
Green Bay, WI 54307-9001

April 16, 2009

FERC Project No. 2433

Ms. Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
Mail Code: DTCA, HL 21.3
888 First Street, N.E.
Washington, DC 20426

Dear Secretary Bose:

Proposed Eurasian Watermilfoil Control Plan for the Grand Rapids Hydroelectric Project

Wisconsin Public Service Corporation (WPS) is providing the Proposed Supplement to the Order Amending Approved Noxious Plants Monitoring Plan - Eurasian Watermilfoil (EWM) Monitoring and Control Plan for the Grand Rapids Hydroelectric Project #2433.

Per the Federal Energy Regulatory Commission (FERC), Order Granting Extension of Time issued July 15, 2008, WPS was provided until April 25, 2009 to re-file a EWM Control Plan for the Grand Rapids Hydroelectric Project. The proposed supplement to the order amending approved Noxious Plants Monitoring Plan - Eurasian Watermilfoil Control Plan is included in Appendix A.

WPS has worked cooperatively with the resource agencies in developing this EWM control plan. WPS met with a representative from the U.S. Fish & Wildlife Service (FWS) on March 10, 2009 and conducted a conference call with representatives from FWS and the Wisconsin Department of Natural Resources (WDNR) on March 27, 2009.

Additionally, WPS has been working closely with the Michigan Department of Natural Resources (MDNR) in development of the plan. All comments received by the MDNR have been incorporated into the plan.

WPS has provided a draft of this plan to the WDNR, the MDNR and the FWS. Comments received from the resource agencies and response (if necessary) to those comments are provided in Appendix B.

Should you have any questions or concerns regarding the proposed supplement to the Noxious Plants Monitoring Plan, please contact Jamie Nuthals at (920) 433-1460.

Sincerely,

Terry P. Jensky
Vice President - Energy Supply Operations
Telephone: (920) 433-2900

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Enc.

cc: Ms. Joan Johanek, WPSC - D2
Mr. Bruce Crocker, WPSC - D2
Mr. Gil Snyder, WPSC - D2
Mr. Howard Giesler, WPSC - PUL
Mr. Mike Henderson, WPSC - CRI
Ms. Pat Grant, FERC - Chicago
Ms. Carlisa Linton, FERC - DC
Mr. Edward Brandt, WPSC - WMAR

APPENDIX A

GRAND RAPIDS HYDROELECTRIC PROJECT

PROPOSED SUPPLEMENT TO THE ORDER AMENDING APPROVED NOXIOUS PLANTS MONITORING PLAN - EURASIAN WATERMILFOIL CONTROL PLAN

APPENDIX B

GRAND RAPIDS HYDROELECTRIC PROJECTS

DOCUMENTATION OF CONSULTATION

Proposed Supplement to the Order Amending Approved Noxious Plants Monitoring Plan - Eurasian Watermilfoil Monitoring and Control Plan - Grand Rapids Hydroelectric Project #2433

Objective: Obtain necessary information on Eurasian watermilfoil (EWM) population dynamics within the Grand Rapids reservoir and participate in a watershed wide EWM study to determine if an appropriate EWM control method is viable, while helping to control the spread of EWM to other waterbodies.

Components of the objectives include:

1. Determine if native milfoil weevils (*Euhrychiopsis lecontei*) (weevils) are present within the reservoir and, if so, at populations that can control EWM.

2. Work with other stakeholders within the Upper Menominee River Basin Watershed to exchange information about EWM presence and control strategies and to obtain information on the genetic characteristics of the EWM populations.

3. Implement measures to help control the spread of EWM to other water bodies.

Methods:

Wisconsin Public Service (WPS) will select a minimum of twenty sample points (200 stems) within the Grand Rapids reservoir and collect data on weevil populations. The minimum of twenty sample locations and 200 stems was determined in consultation with Ms. Cortney Marquette of EnviroScience, Inc. (EnviroScience). Ms. Marquette determined the estimated number of sample points after reviewing the 2008 Grand Rapids reservoir EWM population survey figure.

At each sample point, the weevil population and EWM population will be evaluated. This information will be used to determine if EWM is being controlled by weevils at the Grand Rapids reservoir. If control of EWM is observed, the number of weevils per plant will be counted to help establish a baseline of the numbers needed for EWM control.

The results of the weevil survey will be evaluated at the end of the 2009 field season, with a report provided to the resource agencies by October 31st. WPS will consult with the resource agencies to determine if additional surveys should be completed in subsequent years.

WPS will partner with We Energies and the Dickinson Conservation District to evaluate EWM control methods throughout the Upper Menominee watershed. In addition, WPS will work with these partners and Grand Valley State University to determine whether genetic change is occurring in existing EWM populations and, if so, the genetic implications of EWM management effort efficacy. Through this partnership, WPS hopes to better address control of EWM at the Grand Rapids reservoir. A copy of the Mitigation and Enhancement Fund Pre-Proposal submitted by Dickinson Conversation District concerning the genetic change in EWM study is attached.

In an effort to help control the spread of EWM to other water bodies, WPS will maintain signage concerning the presence of EWM on the reservoir at both boat landings.

WPS will also apply an aquatic herbicide treatment to any EWM discovered at the two boat landings to help prevent the spread to other water bodies. The area treated will be directly within the area where boats are launched and will not exceed one acre in size at each landing.

Documentation:

WPS will consult with the resource agencies annually to determine what, if any, surveys are necessary starting in 2009, ending in 2011. A determination of activities to be conducted will be provided to the resource agencies by March 31st of each year, ending in 2011.

A letter detailing the status of the objectives will be provided to the resource agencies by October 31st and to FERC by December 31st in 2009 and 2010. Any comments received by the resources agencies will be addressed prior to sending the results to FERC.

After, the 2011 field season, WPS will consult with the resource agencies on the appropriate control and/or monitoring schedule. A plan will be submitted to the resource agencies by October 31, 2011 and to FERC by December 31st.

Implementation:

The weevil survey will be conducted in 2009.

If EWM is located within the launch area of either of the two boat landings, WPS will apply an aquatic herbicide treatment, up to one acre in size at each landing, starting in 2009 and if applicable through 2011.

WPS will participate in a project with other stakeholders to evaluate EWM control and to determine genetic changes in EWM and its relationship to management effort efficacy in the Upper Menominee River Basin, with the majority of studies and field work to be completed in 2010 through 2011.

WPS will consult with the resource agencies annually to determine what, if any, surveys are necessary starting in 2009 and ending in 2011.

GRAND RAPIDS HYDROELECTRIC PROJECT

MITIGATION AND ENHANCEMENT FUND PRE-PROSAL

we energies

MITIGATION AND ENHANCEMENT FUND (MEF) PRE-PROPOSAL

TITLE: Determining genetic change in Eurasian Water Milfoil and its relationship to management effort efficacy in the Upper Menominee River Basin.

PROJECT MANAGER(S):

Name : Ann Hruska

Organization : Dickinson Conservation District

Address: 102 N. Hooper Street Kingsford, MI 49802

Phone: (906) 774-8441 **Fax:** (906) 774-0177

E-Mail: ann.hruska@mi.nacdnet.net

Name: Dr. Ryan Thum

Organization: Grand Valley State Univ.
Annis Water Reources Institute

Address: 740 West Shoreline Drive
Muskegon, MI 49441

Phone: (616) 331-3989 **Fax:**

Email: thumr@gvsu.edu

FUNDING REQUESTED FROM MEF: YEAR 2010 **AMOUNT** $20,000 **MATCH** $10,000

YEAR 2011 **AMOUNT** $18,000 **MATCH** $9,000

PROJECT DATES: START DATE : January 1, 2010 COMPLETION : Dec, 31, 2011

RATIONALE:

Eurasian Watermilfoil, *Myriophyllum spicatum* (EWM) is a non-native invasive species with the ability to densely colonize a lake or backwater system to the point that the ecosystem's biodiversity are compromised. Its massive nutrient /muck loading in the lake also has long term impacts on the aquatic ecosystem.

Since it was first identified in the Menominee River Basin (Basin) about 10 years ago, EWM has been a galvanizing issue for lake associations and water managers, as they watched EWM consume a large part of the littoral zone (to a depth of 20') in annually expanding beds. Lake residents and users are concerned about changing fish populations & lake ecology, decreased recreation capability (swimming, boating, fishing), and declining property values. EWM spreads quickly by stem fragmentation and runners, and is readily transferred between waterbodies as stem fragments via human activity. EWM has invaded lakes and river backwaters in much of the U.S., and within this Basin, infestations include impoundments on the Brule, Michigamme, Sturgeon, and Menominee Rivers, as well as at least 15 inland lakes from Dickinson, Iron, and Florence Counties.

EWM has been labeled as an Invasive Species/Restricted in both Wisconsin and Michigan and is subject to laws regarding its movement and intentional introduction.

In the past few years, the identification of Watermilfoil stands in the Basin by visual observation has begun to concern scientists, as they are not always seeing "clear-cut" examples of EWM as the plant occupying dense beds where EWM had been identified previously. The Watermilfoil being seen is increasingly more vegetatively similar to the native Northern Watermilfoil (NWM), *Myriophyllum sibericum*, but growing in a much more aggressive and exclusionary manner than that species would exhibit prior to a lake's infestation by EWM. It has been suggested that hybrid EWM x NWM may be more invasive than 'pure' EWM (Moody and Les 2002). Hybrids between these two species have been documented throughout the U.S. and in at least ten Michigan lakes. Verification by genetic testing is the only way to definitively characterize the nature of the "hybrid" -looking plants.

In recent years, lake property owners in several Basin lakes have perceived a reduced effectiveness of chemical control methods. Herbicide (Navigate) concentration recommendations have increased from 100 to 150 lbs/acre in many lakes. Biological control with weevils is also a treatment method being used in MI waters.

Restoring the natural plant and animal biodiversity of the Basin aquatic ecosystems is the ultimate goal of efforts to wisely manage this invasive species. Public and private stakeholder groups interested in this study include the Dickinson Conservation District, Grand Valley State University, Dickinson Lakes & Streams Coalition, Florence County Land Conservation Dept, Florence Co Lakes & Rivers Association, the Wild Rivers Invasive Species Cooperative, the Western Upper Peninsula Cooperative Weed & Pest Management Area, Norway Light & Power, We Energies, Michigan Dept of Environmental Quality, Wisconsin Public Service, EnviroScience Inc., and others. All seek a better understanding of genetic changes in Watermilfoil populations in respect to management, so as to make decisions that will be in the best interest of the long term health and protection of Basin waters. The stakeholders consider this study an important first phase in order to predict efficacy of different treatment options based on Water Milfoil genetics.

GOAL AND OBJECTIVES:

Goal 1. Obtain detailed genetic profiles of populations of Watermilfoil within the Upper Menominee River Watershed.

Objective 1.1 We will select approx 28 Watermilfoil population sites within the target study area of the Upper Menominee River Watershed, to include both riverine and inland lake systems, in different categories related to the type of management, management intensity, and efficacy of treatments.

Objective 1.2 We will define protocols for sample collection, delivery to the lab, and genetic analysis.

Objective 1.3 Collect up to 25 individual plants from approx 28 EWM sites in the study for DNA extraction and sequencing by Dr. Ryan Thum's lab at the Annis Water Resources Institute (AWRI) of Grand Valley State Univ. Replicate the study in Year 2.

Objective 1.4 Complete genetic analysis using a set of molecular markers developed by AWRI.

Objective 1.5 Characterize plant samples as to the whether they are considered hybrid (degree) or non-hybrid.

Goal 2. To determine whether genetic composition or changes in genetic composition are associated with control methods' intensity or efficacy.

Objective 2.1 Gather and analyze available lake data in order to classify previous lake treatment efficacy (qualitatively or quantitatively) as high or low.

Objective 2.2 Classify lakes in a contingency table with "hybrid" or "non-hybrid" Watermilfoil and whether or not previous treatment efficacy was considered high or low.

Objective 2.2 Compare year 1 & 2 results, analyze, and identify trends or anomalies.

GEOGRAPHIC LOCATION OF PROJECT: Approximately 28 EWM infested sites throughout the Basin, including river impoundment sites (Michigamme Falls, Paint Pond, Brule Resv, Peavey, Twin Falls Resv, Kingsford Resv, Sturgeon, Grand Rapids) and including lakes in Iron (Runkle L., Ice L., Chicagon) & Dickinson Co, MI (L. Antoine, Bass, Carney, Sawyer, Gene's Pond, Hamilton, Norway, Hanbury Lakes) and Florence Co, WI. (Ellwood, Frog).

RELEVANCE: This project contributes to the protection of both the habitat and wildlife biodiversity throughout the length of the Upper Menominee River Watershed. Gaining a better understanding of the propensity of invasive Eurasian Watermilfoil to undergo genetic change and determining if that change correlates to management /treatment efforts is an important first step in making better decisions regarding long term management efforts to protect that diversity.

DELIVERABLES/PRODUCTS: 1. Documentation of reliable genetic identification methods for hybrids. 2. Each site's specific genetic analyses. 3. Data collected regarding previous lake treatments and rationale for characterizing high or low efficacy. 4. A contingency table displaying the relationship (if any) of treatment efficacy vs various Waterrmilfoil genetic lineages. 5. Identification of genetic lineages for subsequent experiments on treatment efficacy (Phase II). 6. Copies of published articles/reports.

PROJECT REPORTS: Written quarterly reports will be submitted by the project manager to the WSIT for the duration of the project. A final report will be filed with the WSIT by February 1 following final completion of the project.

U.S. FISH & WILDLIFE SERVICE COMMENTS

U.S. FISH AND WILDLIFE SERVICES DID NOT FORMALLY SUBMIT COMMENTS

MICHIGAN DEPARMENT OF NATURAL RESOURCES

COMMETNS SUBMITTED BY MICHIGAN DEPARTMENT OF NATURAL RESOURCES WERE INCORPATED INTO THE PROPOSED SUPPLEMENT PLAN

WISCONSIN DEPARMENT OF NATURAL RESOURCES COMMENTS

Nuthals, James D

From: Sevener, Gregory A - DNR [Gregory.Sevener@wisconsin.gov]
Sent: Monday, March 30, 2009 11:51 AM
To: Nuthals, James D
Subject: RE: Grand Rapids Hydroelectric Project - Proposed EWM Control and Monitoring Plan

Hello Jamie,

The only comments I have were expressed on the conference call. First, I think it is important to maintain good, current signage for people to see that the water body does contain EWM(Eurasian milfoil) and zebra mussels to remind them to take the proper care of inspection and cleaning of their boat, trailer and other equipment when leaving the flowage.

Secondly, if treatment of EWM around the public access point takes place it should be done when EWM is in the early growth stage fore other species emerge since it has been found to be more effective in being more specific for EWM and also will be treating less biomass and actively growing. A permit is necessary for chemical treatment and it takes 15 working days to issue a permit after receiving a complete application with fees. I issue chemical treatment permits for Marinette County.

As mentioned the UW Extension Steven Point web site for Lakes Partnership maintains a list of contractors for chemical treatment and other services on the Lake List at the following link: http://www.uwsp.edu/cnr/uwexlakes/lakelist/.

-----Original Message-----
From: Nuthals, James D [mailto:JDNuthals@integrysgroup.com]
Sent: Monday, March 16, 2009 3:27 PM
To: Jessica Mistak; Nick_Utrup@fws.gov; Simon, Byron D - DNR; Donofrio, Michael C - DNR; Sevener, Gregory A - DNR
Subject: Grand Rapids Hydroelectric Project - Proposed EWM Control and Monitoring Plan

Hello Everyone,

I am providing the Grand Rapids Hydroelectric Project Proposed EWM Control and Monitoring Plan for your review. If interested, I am willing to set up a conference call to discuss any questions you may have concerning the proposed plan.

The available dates that have been provided so far, are March 26th and the afternoon of March 27th. Please let me know if either of these dates would work for you.

If a conference call is not in order, please provide comments by Wednesday, April 15th.

If you have any questions, please let me know.

Sincerely,

Jamie Nuthals
Environmental Services-
Natural Resource Management
WPS
(920) 433-1460

WISCONSIN PUBLIC SERVICE CORPORATION RESPONSE TO WISCONSIN DEPARTMENT OF NATURAL RESOURCE COMMENTS

WDNR COMMENT

I think it is important to maintain good signage for people to see that the water body does contain EWM (Eurasian milfoil) and zebra mussels to remind them to take the proper care of inspection and cleaning of their boat, trailer and other equipment when leaving the flowage.

WPS RESPONSE

Comment noted. Invasive Species signs will be maintained at both boat landings.

WDNR COMMENT

If treatment of EWM around the public access point takes place it should be done when EWM is in the early growth stage fore other species emerge since it has been found to be more effective in being more specific for EWM and also will be treating less biomass and actively growing. A permit is necessary for chemical treatment and it takes 15 working days to issue a permit after receiving a complete application with fees.

WPS COMMENT

Comment noted. WPS will review the boat landings in early May. If EWM is present, WPS will submit a permit for control with the appropriate Resource Agency.

Document Content(s)

20090416 WPSC Response to FERC GR EWM Plan.PDF.....1-3

AppendixA.PDF.....4-8

AppendixB.PDF.....9-14