CONSOLIDATED WATER POWER COMPANY
General Offices
P.O. Box 8050
Wisconsin Rapids, WI 54495-8050
A subsidiary of NewPage Corporation

October 23, 2008

Office of the Secretary,
Federal Energy Regulatory Commission
888 1st Street, N.E.
Washington, D.C. 20426

Little Quinnesec Falls Hydroelectric Project, FERC No. 2536 – Article 409, 2008 Exotic Species Report

In accordance with the Commission order approving the monitoring plan for Purple Loosestrife and Eurasian Water Milfoil (EWM) within the Project boundary, we are submitting the enclosed report for 2008. During the 2008 survey, 4 sites were observed with EWM, down drastically from 2007. The three 2008 sites approved by the Michigan Department of Environmental Quality for chemical treatment were effectively treated and no EWM was observed during the August survey. Agency consultation proposed the following 2009 treatment plans: (1) no chemical treatment to evaluate 2008 chemical treatment impacts and (2) develop a weevil strategy plan for site K downstream of Big Quinnesec Falls. We (NewPage) agree with the consultation recommendations and will develop a weevil strategy plan this winter for agency review by April 30, 2009.

No evidence of Purple Loosestrife was found within the Project. However, we (NewPage) will work with the City of Niagara to coordinate chemical treatment of Purple Loosestrife along the shoreline downstream of the project boundary.

Enclosed in the report are details describing the two-dosage herbicide treatment approach undertaken to control Eurasian Milfoil within the Project Boundary.

Appropriate signage and brochures are located at the river boat access sites detailing specific control measures for exotic species.

Sincerely,

NEWPAGE CORPORATION

Thomas J. Witt
Resources Manager

Enclosure: White Water Associates, Inc. Report

CC: File (Little Quinnesec Falls, LG-90-30 – Article 409)
K.F. Goodreau – N
Ms. Peggy A. Harding, Regional Director – FERC, Chicago, IL
Ms. Jessica Mistak – Michigan Department of Natural Resources, 484 Cherry Creek Road, Marquette, MI 49855
Mr. John Suppnick, Michigan Department of Environmental Quality, 300 S. Washington, 2nd Floor, Knapp Center, Lansing, MI 48933
Mr. Michael Donofrio, Wisconsin Department of Natural Resources, 101 North Ogden, Peshtigo, WI 54157
Ms. Louise Clemency, U.S. Fish & Wildlife Service, New Franken, WI 54311-8331
Mr. Don Novak, Administrator, City of Niagara, 1029 Roosevelt Road, Niagara, WI 54151
Ms. Angie Tornes – National Park Service, Milwaukee, WI

Appendix A – Consultation Letter and Responses

2008

CONSOLIDATED WATER POWER COMPANY
General Offices
P.O. Box 8050
Wisconsin Rapids, WI 54495-8050
A subsidiary of NewPage Corporation

October 6, 2008

Ms. Jessica Mistak
Michigan Department of Natural Resources
484 Cherry Creek Road
Marquette, MI 49855

Mr. John Suppnick
Michigan Department of Environmental Quality
303 S. Washington
2nd Floor, Knapp Center
Lansing, MI 48933

Mr. Michael Donofrio
Wisconsin Department of Natural Resources
101 North Ogden
Pestigo, WI 54157

Ms. Louise Clemency
U.S. Fish & Wildlife Service
Green Bay Field Office
2661 Scott Tower Drive
New Franken, WI 54229-9565

Ms. Angie Tornes
National Park Service
626 E. Wisconsin Avenue, Suite 100
Milwaukee, WI 53202

Little Quinnesec Falls Hydroelectric Project, FERC No. 2536 – Article 409, 2007 Exotic Species Report for Agency Consultation

In accordance with the Commission order approving the monitoring plan for Purple Loosestrife and Eurasian Milfoil within the Project boundary, we are email attaching the 2008 report for your review and consultation. The actual report will be mailed within the next three weeks.

During the 2008 survey, 4 sites were observed with Eurasian Water Milfoil (EWM), down drastically from 2007. The three 2008 sites approved by the Michigan Department of Environmental Quality for chemical treatment where effectively treated and no EWM was observed at the sites during the August survey. Attached is the final report describing the herbicide treatment undertaken to control Eurasian Milfoil within the Project Boundary.

It is recommended for consultation review that no sites be chemically treated for EWM in 2009 to allow time to survey the 2008 chemically treated sites, the revegetation of EWM and other aquatic plant life response to the chemical treatment. The aerial site K will be reviewed for possible weevil treatment in the next several years if the area continues to expand.

No evidence of Purple Loosestrife was found within the Project, however a few cut stalks were found further downstream on private property. The Niagara City Park (along HWY 141) downstream of the private properties and outside of the license survey area does have an abundance of Purple Loosestrife. We have recommended chemical treatment of this area to the city of Niagara. The city of Niagara has agreed to this recommendation and we will recommend a suitable chemical to be applied in 2009 by the city.

Appropriate signage informing area users of the river are located at the boat access sites. Additionally, this information is being forwarded to the City of Niagara concurrent with this filing recommending that they treat the Purple Loosestrife in accordance with our consultant's 2008 report.

To simplify the transmission of your comments, concerns and/or concurrence feel free to provide them via email at tom.witt@newpagecorp.com , telephonically at (715) 422-3927 or U.S. mail at the above address. All comments will be filed with the final plan to the FERC as evidence of consultation with the respective agencies.

Sincerely,

CONSOLIDATED WATER POWER COMPANY

Thomas J. Witt

Thomas J. Witt
Resources Manager

Enclosure: White Water Associates, Inc. Report (email attachment)

cc: File (Little Quinnesec Falls, LG-90-30 Article 409– 2008 Exotic Species Report, consultation letter)
Ken Goodreau – NewPage

Witt, Tom

From: Jessica Mistak [MISTAKJL@michigan.gov]
Sent: Wednesday, October 15, 2008 3:27 PM
To: Louise Clemency - USFWS; John Suppnick; Witt, Tom; Angie Tornes (Angie_Tornes@nps.gov); Michael.Donofrio@wisconsin.gov
Cc: Goodreau, Ken
Subject: Re: Little Quinnesec Falls - Project No. 2536, 2008 Exotic SpeciesReport

Hi Tom,
The Michigan Department of Natural Resources has reviewed the 2008 Exotic Species Report for Little Quinnesec Falls and we are encouraged to see that the treatment for Eurasian watermilfoil is proving effective.

We agree with your recommendations to not pursue chemical treatment for Eurasian watermilfoil in 2009 and, instead, monitor the vegetation response. We also agree that Site K may be a candidate for biological control and recommend that you put together a strategy for weevil introduction for agency review. In developing the strategy, you might want to contact Mike Grisar (Mike.Grisar@we-energies.com or (414) 221-5426) for insight on We Energies' success using weevils.

We appreciate your efforts in coordinating with the City of Niagara for treatment of purple loosestrife downstream of the project boundary.

Thank you,
Jessica

Jessica Mistak, Senior Fisheries Biologist DNR Marquette Fisheries Station
484 Cherry Creek Rd
Marquette, MI 49855
906-249-1611 ext. 308
FAX 906-249-3190

>>> "Witt, Tom" <Tom.Witt@newpagecorp.com> 10/06/2008 11:08 AM >>>
Attached is the cover letter for the Little Quinnesec Falls Hydroelectric Project (FERC No. 2536) detailing the summary and consultation review request for the Article 409, 2008 Exotic Species Report. The actual 2008 Exotic Species Report is also attached.

I will be following up on this email by phone in the next several weeks to review the report and recommendations for 2009 Eurasian Water Milfoil treatment. This review will be incorporated into the 2008 FERC annual filing.

Thomas J. Witt
Resources Manager
Consolidated Water Power Company
(715) 422-3927

Witt, Tom

From: Witt, Tom
Sent: Thursday, October 16, 2008 9:08 AM
To: Jessica Mistak; Louise Clemency - USFWS; John Suppnick; Angie Tornes (Angie_Tornes@nps.gov); Michael.Donofrio@wisconsin.gov
Cc: Goodreau, Ken; Witt, Tom
Subject: RE: Little Quinnesec Falls - Project No. 2536, 2008 Exotic SpeciesReport

The Little Quinnesec Falls Hydroelectric Project No. 2536 will work on a strategy for weevil introduction at Site K over this coming winter to introduce for agency review. I will check with WE Energies and the City of Norway on their weevil introduction findings.

Thomas J. Witt
Resources Manager
Consolidated Water Power Company
(715) 422-3927

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From: Jessica Mistak [mailto:MISTAKJL@michigan.gov]
Sent: Wednesday, October 15, 2008 3:27 PM
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Thomas J. Witt
Resources Manager
Consolidated Water Power Company
(715) 422-3927

Witt, Tom

From: Witt, Tom
Sent: Friday, October 17, 2008 9:34 AM
To: 'Donofrio, Michael C - DNR'; Jessica Mistak; Louise Clemency - USFWS; John Suppnick; Tornes, Angie
Cc: Goodreau, Ken
Subject: RE: Little Quinnesec Falls - Project No. 2536, 2008 ExoticSpeciesReport

Thank you for your response. NewPage will incorporate MDNR thoughts into a strategy over this winter.

Thomas J. Witt
Resources Manager
Consolidated Water Power Company
(715) 422-3927

-----Original Message-----
From: Donofrio, Michael C - DNR [mailto:Michael.Donofrio@wisconsin.gov]
Sent: Friday, October 17, 2008 9:07 AM
To: Witt, Tom; Jessica Mistak; Louise Clemency - USFWS; John Suppnick; Tornes, Angie
Cc: Goodreau, Ken
Subject: RE: Little Quinnesec Falls - Project No. 2536, 2008 ExoticSpeciesReport

We agree with MIDNR comments

P Michael Donofrio
Peshtigo Fisheries Supervisor
Bureau of Fisheries Management
Wisconsin Department of Natural Resources
101 N Ogden Rd, P.O. Box 208
Peshtigo, WI 54157
(*) phone: (715)582-5050
(*) fax: (715) 582-5005
(*) e-mail: Michael.Donofrio@Wisconsin.gov

-----Original Message-----
From: Witt, Tom [mailto:Tom.Witt@newpagecorp.com]
Sent: Thursday, October 16, 2008 9:08 AM
To: Jessica Mistak; Louise Clemency - USFWS; John Suppnick; Tornes, Angie; Donofrio, Michael C - DNR
Cc: Goodreau, Ken; Witt, Tom
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Thomas J. Witt
Resources Manager
Consolidated Water Power Company
(715) 422-3927

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Sent: Wednesday, October 15, 2008 3:27 PM
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We appreciate your efforts in coordinating with the City of Niagara for treatment of purple loosestrife downstream of the project boundary.

Thank you,
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Jessica Mistak, Senior Fisheries Biologist DNR Marquette Fisheries Station
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Thomas J. Witt
Resources Manager
Consolidated Water Power Company
(715) 422-3927

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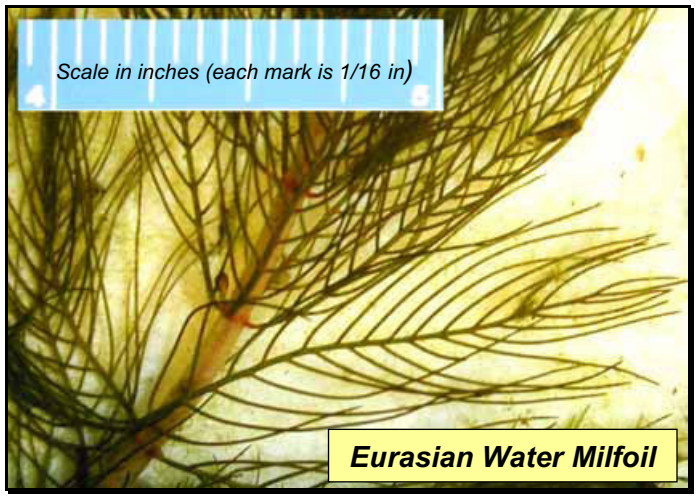
PROJECT REPORT

Monitoring The Little Quinnesec Falls Hydroelectric Project for Eurasian Water Milfoil and Purple Loosestrife

FERC Hydro Project No. 2536, Little Quinnesec Falls



Prepared for:

NewPage Corporation

Ken Goodreau, Utilities & Engineering Manager

1101 Mill Street, Niagara, WI. 54151

Thomas J. Witt, Resources Manager

Consolidated Water Power Company

P.O. Box 8050, Wisconsin Rapids, WI 54495

Prepared by:

White Water Associates, Inc.

(With contributions from Thomas Witt)

Contact: Dean B. Premo, Ph.D., Senior Ecologist

429 River Lane, P.O. Box 27

Amasa, Michigan 49903

Date: September 2008

PROJECT REPORT

Monitoring The Little Quinnesec Falls Hydroelectric Project for Eurasian Water Milfoil and Purple Loosestrife

FERC Hydro Project No. 2536, Little Quinnesec Falls

Fieldwork:	David Tiller, B.S., Field Biologist Bill Artwich, Field Biologist Thomas Witt (Consolidated Water Power Co.)
Data Analysis And Report	Dean Premo, Senior Ecologist Kent Premo, Technical Support Scientist David Tiller, B.S. Field Biologist Thomas Witt (Consolidated Water Power Co.)

Cite as: Premo, Dean, David Tiller, Kent Premo, and Thomas Witt. 2008. Monitoring the Little Quinnesec Falls Hydroelectric Project for Eurasian Water Milfoil and Purple Loosestrife (FERC Hydro Project No. 2536, Little Quinnesec Falls). Report to Consolidated Water Power Company (subsidiary of NewPage Corporation) by White Water Associates, Inc.

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Appendix C – EURASIAN WATER MILFOIL HERBICIDE TREATMENT REPORT

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Figure 1. Locations of Eurasian water milfoil (EWM) in the Little Quinnesec Falls Project (FERC #2536), 2002-2008.

Table 1. History of Eurasian water milfoil (*Myriophyllum spicatum* L.) in the Little Quinnesec Falls Project (FERC #2536).

Table 2. Summary of Eurasian water milfoil in the Little Quinnesec Falls Project (FERC #2536).

List of Photos in Appendix B

Photo 1. *Mryiophyllum spicatum* (Eurasian water milfoil) with a typical number of leaflets (14 on this specimen -counting on one side of the leaf).

Photo 2. Eurasian water milfoil leaf with a typical number of leaflets (14 on this specimen - counting on one side of the leaf).

Photo 3. Eurasian water milfoil leaf with a typical number of leaflets and some calcium precipitate encrusting the leaf.

Photo 4. Eurasian water milfoil leaf displaying no evidence of weevil damage to the stems.

List of Contents in Appendix C

September 29, 2008, Memo to Dean Premo (White Water Associates) from Tom Witt (Stora Enso). A narrative detailing the 2008 treatment of Eurasian Water Milfoil with herbicide on selected sites in the Little Quinnesec Falls Project area.

Menominee River Backwater Areas Aquatic Vegetation Survey Maps (4 pages).

Standard Aquatic Vegetation Assessment Site Species Density Sheet (completed on 5/29/2008 by Wisconsin Lake and Pond Resource, LLC) (3 pages).

Standard Aquatic Vegetation Assessment Site Species Density Sheet (completed on 7/9/2008 by Wisconsin Lake and Pond Resource, LLC) (3 pages).

Standard Aquatic Vegetation Assessment Site Species Density Sheet (completed on 8/6/2008 by Wisconsin Lake and Pond Resource, LLC) (3 pages).

SUMMARY

Monitoring for Eurasian water milfoil (*Myriophyllum spicatum*) and purple loosestrife (*Lythrum salicaria*) was conducted on the Little Quinnesec Falls Project (FERC Hydro Project No. 2536) in 2008 as required by Article 409 of the FERC order issuing a project license. Annual monitoring for these species has occurred at this project since 1998. Both plants have been reported in the Menominee River basin since 1990 although none in the project area before 2002.

Scientists from White Water Associates (an independent consulting firm) conducted fieldwork from a boat and on foot on August 7 and 8, 2008. Tom Witt (Consolidated Water Power Company; subsidiary of NewPage Corporation) assisted the White Water team.

The project area continues to have a robust diversity of native aquatic plants including native water milfoils. In 2008, four sites were documented with rooted Eurasian water milfoil. This was a decrease of ten sites since 2007. Three of the sites (Sites D, L, and O) where Eurasian water milfoil was not observed be attributed to a 2008 herbicide treatment targeted at this invasive species. Eurasian water milfoil had not previously been recorded at one of the four 2008 sites. Three of the four 2008 sites had fifteen or fewer Eurasian water milfoil. One site (Site K) had an estimated 200 plants in 2008 (an increase from 2007). In 2008, there was a decrease in the number of sites of occurrence of Eurasian water milfoil and a relatively smaller decrease in numbers of plants. As in 2007, the actual area of coverage remains very small in 2008. Sites where Eurasian water milfoil has been found are shallow backwaters and areas with little current. In all cases, the species is part of a diverse community of native plants that seemingly keeps it in check. Eurasian water milfoil should continue to be monitored in the project area, especially those areas where chemical treatments have been applied.

Purple loosestrife plants were not observed in the project area in 2008. Nevertheless, immediately downstream of the project area a few plants were observed on private lots. A number of purple loosestrife plants were also observed at the Niagara City Park downstream of the project area.

INTRODUCTION AND BACKGROUND

Monitoring for Eurasian water milfoil (*Myriophyllum spicatum*) and purple loosestrife (*Lythrum salicaria*) was conducted on the Little Quinnesec Falls Project (FERC Hydro Project No. 2536) in 2008 as required by Article 409 of the FERC order issuing a project license. Annual monitoring for these non-native plant species has occurred at this project since 1998. There have been reports of both Eurasian water milfoil and purple loosestrife within the Menominee River basin since 1990 although none from the project area prior to 2002. Eurasian water milfoil has been reported since 1995 from the Twin Falls Flowage immediately upstream of the project area.

Neither Eurasian water milfoil nor purple loosestrife were reported from the Little Quinnesec Falls project during surveys conducted for the license application process (1990) and neither species was confirmed within the project area during monitoring in 1998, 1999, 2000, or 2001. Eurasian water milfoil was first documented in 2002 by observation of a few plants at two locations. Most locations where Eurasian water milfoil has been found since 2002 have been small areas containing small numbers of individual plants mixed within a diverse community of native aquatic plants. Since 2006, a couple of relatively small areas hosted larger numbers of Eurasian water milfoil (one to two hundred individual plants). “Beds” or “colonies” where Eurasian water milfoil is the dominant plant have not been observed in the project area through 2007. In 2002, several specimens of Eurasian water milfoil and both native water milfoil species (*M. sibiricum* and *M. heterophyllum*) were collected from the Little Quinnesec Falls project area and sent to experts Drs. Donald Les and Michael Moody of the University of Connecticut for further identification by genetic analysis. Their analysis of these specimens indicated that no hybrids were present, only the pure forms of each of the three species.

Purple loosestrife was first in 1998 growing along the Wisconsin shoreline of the river below the Little Quinnesec Dam (about 100 feet below the public access site). This area is within the one-quarter mile project survey area. Each year White Water Associates staff removed these plants by hand pulling, but they persisted until 2005 when they were absent. In 2005 a single non-flowering plant and two flowering plants were found near the first private property residence about 30 feet downstream of the original patch. White Water staff pulled these plants in 2005 and they were absent in 2006. In 2007, six flowering purple loosestrife plants were observed along the Wisconsin shoreline downstream of the rafter’s boat launch. These were removed, bagged and disposed of by Stora Enso staff. Downstream from this area, and outside the project survey area,

there were numerous flowering purple loosestrife plants in 2007. The City of Niagara was contacted by Stora Enso (hereafter "NewPage") staff and agreed to dispose of these plants.

This document reports on 2008 survey results and presents information in five sections: (1) Summary, (2) Introduction and Background, (3) Methods, (4) Findings, and (5) Conclusions. Three appendices are included: Appendix A with a figure and tables; Appendix B with photos; and Appendix C with a report describing an herbicide treatment of Eurasian water milfoil conducted by NewPage and a contractor in 2008.

METHODS

The fieldwork for the survey was completed on August 7 and 8, 2008. Tom Witt (NewPage) participated in the two-day survey along with David Tiller and Bill Artwich of White Water Associates. The reservoir and the river downstream of the dam were surveyed. We used a 14-foot boat and 9.9 HP engine to survey the shoreline and other likely areas between the Little Quinnesec Falls Dam and the more upstream Big Quinnesec Falls Dam, including the numerous backwater wetlands. Most of the backwater wetlands are shallow and densely vegetated with a diversity of aquatic plants making motor use difficult. Relatively shallow backwater areas encountered during the survey made it difficult to access a number of remote backwaters.

We visually surveyed for Eurasian water milfoil in aquatic plant beds and took samples by hand and metal garden rake. We closely examined the leaves of suspect plants, counting leaflets (average number of leaflets is the main morphological trait used to separate the native northern water milfoil (*Myriophyllum sibiricum*) from Eurasian water milfoil, although there is considerable variability within each species. Generally, the average number of leaflets for northern water milfoil is 5-11 with a reported maximum of 13. The average number for Eurasian water milfoil is 14-17 with a maximum of 20. Also useful later in the season is the presence of winter buds (turions) on northern water milfoil, structures not found on Eurasian water milfoil. Where Eurasian water milfoil was observed, we also examined for evidence of weevil herbivory.

In May and July 2008, NewPage (with assistance from a contractor) treated three areas of the impoundment that harbored Eurasian water milfoil. A description of the treatments and outcomes was prepared by Tom Witt of NewPage and is included as Appendix C.

Purple loosestrife when flowering is showy and easily identified. Peak blossoming extends from late July through August in northern Michigan. All wetlands and backwaters connected to the project area reservoir were visually inspected. Binoculars were used to scan the shore and less accessible backwaters. The project area downstream of the Little Quinnesec Falls dam was surveyed on foot and from a 17-foot canoe on August 8, 2008. As a single loosestrife plant can produce prodigious quantities of seeds, physical on-site surveys are necessary to ensure thorough survey.

FINDINGS

This report section presents the findings from the 2008 survey and integrates information from past surveys to provide insight into population dynamics of Eurasian water milfoil and purple loosestrife in the Little Quinnesec Falls project area.

Eurasian Water Milfoil

The project area continues to have a robust diversity of native aquatic plants. Native water milfoils in the flowage include *Myriophyllum heterophyllum* and *M. sibiricum*. *Vallisneria americana* and *Potamogeton richardsonii* continue to be some of the most abundant species throughout the flowage. Other species comprising the aquatic plant community include *Elodea canadensis, Elodea nuttallii, Potamogeton spirillus, P. epihydrus, P. diversifolius, P. zosterformis, P. robbinsii, Zosterella dubia, Ceratophyllum demersum, Ranunculus longirostris*, *Utricularia vulgaris,* and *Megalodonta beckii*.

The aerial photo shown in Figure 1 summarizes shows all sites where Eurasian water milfoil has been detected in the Little Quinnesec Falls project area since 2002. Table 1 presents additional information about these areas, including the latitude/longitude, selected backwater surface area, estimated number of plants observed, and plant surface area involved. Table 2 summarizes the data over all years to provide historical context.

As in past years of monitoring at the Little Quinnesec Falls project area, the plants identified as Eurasian water milfoil exhibit considerable morphological variation. The numbers of leaflets are sometimes intermediate between the northern water milfoil and the Eurasian water

milfoil. Appendix B presents photos that illustrate some of the variability (these photos were taken during the 2006 survey).

In the 2008 survey, we detected four sites in the project area with rooted Eurasian water milfoil. This represents a decline of overall number of sites (fourteen sites were detected in 2007). Only one of the four 2008 sites had not had Eurasian water milfoil in the past. This single new site (Site T, see Figure 1) had six plants. Three of the four 2008 sites had fifteen or fewer Eurasian water milfoil (Sites A, I, and T). Site K had an estimated 200 plants in 2008 (an increase from 2007).

Site I (see Figure 1) is the original location for Eurasian water milfoil on the Little Quinnesec Falls project area. It has consistently had a few rooted plants in 2002, 2003, 2004, and 2005. Despite very thorough searching in this area, we could not detect any plants in 2006. The shallow backwater level encountered during the 2007 survey prevented us from thoroughly searching the vicinity of Site I. In 2008, we found nine Eurasian water milfoil plants at Site I in the area between the north and south arms of this bay.

The number of sites with Eurasian water milfoil decreased in 2008 (relative to 2007). The number of plants and the surface area of coverage were reduced as well. Much of this difference resulted from the loss of plants from three areas that were chemically treated in 2007 and 2008. We did not observe Eurasian water milfoil at chemically treated Sites D, L, and O in 2008. Likewise, no Eurasian water milfoil was observed at Site E. This site is located immediately downstream of Site L and may have been affected by the herbicide treatment at Site L although other sub-populations sometimes disappear for no apparent reason (more on this topic below).

Site D has had Eurasian water milfoil from 2004 to 2007, but none was observed in 2008 (this area has had two years of chemical treatment, see Appendix C). The diversity and abundance other aquatic plants were reduced at Site D in 2008 (as compared to previous monitoring years). Site D is part of a human-created canal system that extends from the river (see Figure 1). The conditions of Site D were thoroughly described in the 2007 monitoring report. Site D was treated with herbicide in 2007 and 2008 (the 2008 activity and its outcomes are described by a report in Appendix C).

Eurasian water milfoil were not observed at Site L in 2008 and were absent from the nearby (downstream) Site E. Like Site D, Site L was treated with herbicide in 2007 and 2008 and more detail can be gleaned in Appendix C. We observed filamentous algae at Site E.

Over the years of monitoring at the Little Quinnesec Falls Project we have noted that small sub-populations of Eurasian water milfoil come and go and (rarely) come back again. No

Eurasian water milfoil was observed at Sites F, H, N, and P in 2008, but all had small populations (fifteen or fewer plants) in the previous year. Site I was the site of the original find of Eurasian water milfoil in the Little Quinnesec Falls Project (first detected in 2002). It was present in very small numbers (see Table 1) through 2005. We observed no Eurasian water milfoil at Site I in 2006 and 2007, but it was observed in the 2008 survey. The reasons for this rather tenuous hold for some of these small sub-populations are unknown, but may indicate the relative difficulty of invading a thriving native plant community.

The actual surface area coverage of Eurasian water milfoil relative to the size of the impoundment remains very small (see Table 2 for summary). We used 349 acres as the size of the project area when calculating percentages. Clearly not all of the impoundment is suitable to Eurasian water milfoil because of depth or water current. Using aerial photo interpretation and in-the-field ground-truthing, we roughly estimate that between 100 and 150 acres of the project area might be suitable Eurasian water milfoil habitat (primarily consisting of shoreline areas and quiet backwaters). Even if this more conservative estimate of habitat is used the relative amount of coverage of existing Eurasian water milfoil is miniscule. The sites where Eurasian water milfoil has been found in the Little Quinnesec Fall project have been fairly shallow backwaters and areas with little current. In all cases, the species is part of a diverse and healthy community of native aquatic plants including *Potamogeton foliosus, Ranunculus longgirostris, Utricularia vulgaris, Ceratophyllum demersum* and the native milfoil, *Myriophyllum sibiricum*. In most of the sites where it is found as a rooted plant, the number of plants is very low. Eurasian water milfoil does not appear to be "taking over" the locations in which it is found, although the population size at Site K has increased. Future observations of chemically treated sites may provide interesting insight regarding the persistence of both the native flora and Eurasian water milfoil.

Purple Loosestrife

As in past years of the survey, no purple loosestrife was found within the portion of the project area, lying between the Little Quinnesec Dam and the Big Quinnesec Dam.

Purple loosestrife has been found each year starting in 1998 until present growing along the Wisconsin shoreline of the river downstream of the Little Quinnesec Dam about 100 feet downstream of the public access site. This area is within the one-quarter mile project survey area. Each year, White Water Associates staff removed these plants by hand pulling, but the plants

persisted until 2005 when they were absent. In 2005, a single non-flowering plant and two flowering plants were found near the first private property residence about 30 feet downstream of the original patch. White Water Associates staff pulled these three plants in 2005 and this site was absent of plants in 2006 and 2007. In 2007, we observed no purple loosestrife on the Michigan side of the river below the Little Quinnesec Falls Dam. In 2007, six purple loosestrife plants were located on the Wisconsin side of the river, downstream of the rafter's boat launch. NewPage staff removed, bagged, and disposed of these plants. Additional purple loosestrife plants were observed on the Wisconsin shoreline outside of the project survey area along the Niagara City Park. The City of Niagara was contacted by NewPage staff and agreed to dispose of these plants.

In 2008, we observed no purple loosestrife plants on corporate property downstream of the Little Quinnesec Dam. There were, however, cut or broken plants on private property (residences) on the Wisconsin side of the river. We also observed more purple loosestrife on the Niagara City Park. Niagara City Park officials have been contacted by NewPage. Park officials are considering a plan to chemically treat the purple loosestrife. NewPage will submit to City Park officials a chemical MSDS to reference for chemical purchase.

A single pulling of purple loosestrife plants is not sufficient to eliminate the species as it can sprout from fragments of roots left in the soil, or seeds still present in the seed bank. Removal of the flowering stalks each year limits the number of seeds produced and the species' ability to propagate via seeds. More effective control would require application of herbicide to freshly cut stems. Repeated pulling of the existing stems of loosestrife has prevented it from blooming and spreading and may finally effect its complete eradication at this site.

CONCLUSIONS

Eurasian water milfoil is known for spreading rapidly, usurping space, and dominating the aquatic plant community. Over the years at the Little Quinnesec Falls Project area, the Eurasian water milfoil has been quite limited in occurrence and numbers. It may be that the robust populations of native plants help keep this invasive species in check. In 2008, there was a decrease in the number of sites of occurrence of Eurasian water milfoil (four sites as compared to fourteen in 2007) and a relatively smaller decrease in numbers of plants. As in 2007, the actual area of coverage remains very small in 2008. Three of the four 2008 sites had fifteen or fewer plants. Eurasian water milfoil should continue to be monitored in the project area for changes in

extent and population size, especially those areas where chemical treatments have been applied to diminish Eurasian water milfoil population.

During our field surveys in 2006, we attempted to hand-pull some of the individual Eurasian water milfoil plants, but found this to be an impractical means of control in this setting. First of all there is uncertainty about getting the underground portion of the plant and a danger of fragmenting the upper portions and setting some adrift to possibly colonize other areas. The process of wading or swimming and pulling the plants muddies the water making for difficult visibility. We also tried using a rake to pull the plants but the same difficulties exist as with the hand pulling. An attempt at herbicide control of Eurasian water milfoil at three project area sites showed little or no effect in 2007. In 2008, increased chemical dosage at these same sites appears to have been very effective in reducing Eurasian water milfoil in the 2008 season. Future monitoring will help determine the long-term result of this chemical treatment. See Appendix C for more details on the chemical treatment of 2008.

Purple loosestrife plants were not observed in the project area in 2008. Nevertheless, a number of plants exist immediately downstream of the project area on private and public land. Judging from the previous years' experience, hand pulling and disposal appears to be successful at controlling the spread of purple loosestrife downstream of the Wisconsin rafter's boat launch. Nevertheless, persistence in this effort is necessary.

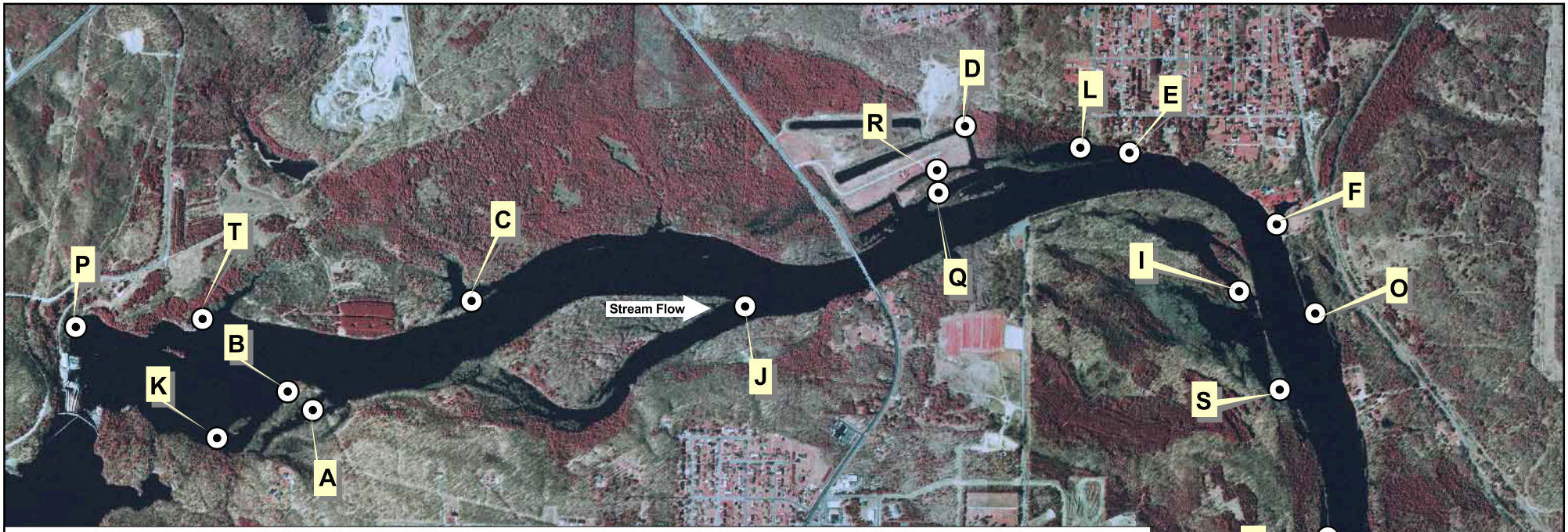
In 1999, brochures on loosestrife control were made available to the public. Warning signs from the Wisconsin DNR, advocating that boaters clean their boats and motors of any plant material from other bodies of water, were posted at boat landings in 2001 and are still present.

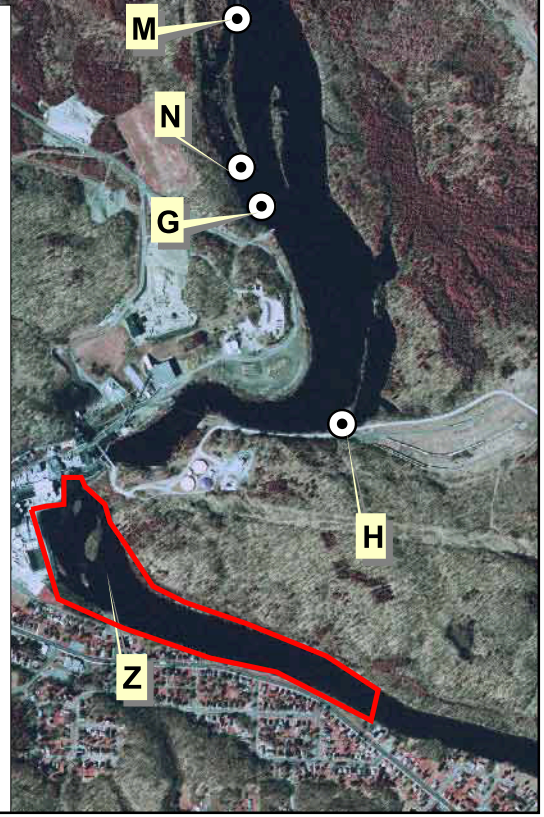
APPENDIX A

Location and History of Eurasian Water Milfoil

(FIGURE 1, TABLES 1 AND 2)

Figure 1. Locations of Eurasian Water Milfoil (EWM) in the Little Quinnesec Falls Project (FERC #2536), 2002-2008.





KEY TO LOCATIONS

A: 2004 - Floating un-rooted mass (4 sq.ft.) of EWM at entrance to small bay. EWM was completely absent in 2005. Two rooted plants present in 2006 and 2007. Twelve plants observed in 2008.

B: 2005 - Small un-rooted mass (ca. 2 sq.ft.) of EWM floating downstream.

C: 2002 - Two rooted EWM plants. Absent in 2003 and thereafter.

D: 2004 and 2005 - A few rooted plants of EWM, mixed with a variety of native aquatic plants. This colony increased to 100 individual rooted plants in 2006 and remained at 100 in 2007. None observed in 2008.

E: 2004 - Floating un-rooted mass (ca. 2 sq.ft.) of EWM caught along edge. EWM was absent in 2005, but 4 rooted plants were present in 2006 and 3 rooted plants were present in 2007. None observed in 2008.

F: 2004 - Floating un-rooted mass (ca. 2 sq.ft.) of EWM caught along edge. EWM was absent in 2005, but 2 rooted plants were present in 2006 and 2007. No EWM was observed in 2008.

G: 2004 - Floating un-rooted mass (ca. 2 sq.ft.) of EWM caught along edge. EWM was absent in 2005, 2006, 2007, and 2008.

H: 2004 - Floating un-rooted mass (ca. 2 sq.ft.) of EWM caught along edge. EWM was absent in 2005 and 2006. EWM was present in 2007, but not observed in 2008.

I: 2002, 2003, 2004, and 2005 - This was the original location for EWM in the LQF Project. The few rooted plants were scattered within a species-rich community of native plants. No change in coverage was observed from 2002 to 2005. All EWM were absent in 2006. In 2007, shallow water prevented survey. In 2008, nine rooted plants were present.

J: 2006 - Floating un-rooted mass (ca. 2 sq.ft.) of EWM in an area of diverse native plants. Three un-rooted plants present in 2007. None observed in 2008.

K: 2006 - Three individual rooted plants of EWM (each ca. 2 sq.ft.) were observed among a bed of yellow water lilies. This number increased to 100 in 2007 and an est. 200 in 2008.

L: 2006 and 2007 - Fifteen individual rooted plants of EWM (each ca. 2 sq.ft.) were observed among a diverse community of native plants. No EWM observed in 2008.

M: 2006 - An individual rooted plant of EWM (each ca. 2 sq.) was observed among native plants. Absence noted in 2006-2008.

N: 2006-2007 - Six individual rooted plants of EWM (each ca. 2 sq. ft.) were observed among a diverse community of native plants. None observed in 2008.

O: 2006 - Seven individual rooted plants of EWM (each ca. 2 sq. ft.) were observed among a diverse community of native plants. Six were present in 2007. EWM absent in 2008.

P: 2007 - Fifteen rooted EWM in a small quiet backwater below Big Quinnesec Dam. Not observed in 2008.

Q: 2007 - Fifteen rooted EWM in a natural riverine side channel. Not observed in 2008.

R: 2007 - Two rooted EWM in the area of man-made canals. Not observed in 2008.

S: 2007 - Six rooted EWM along quiet water at river's edge among native plants. Not observed in 2008.

T: 2008 - Six rooted EWM observed at river's edge among native plants.

Z: 2008 - Survey area. No EWM observed.

SCALE and DIRECTION N

0 300 600 Meters

Table 1. History of Eurasian Water Milfoil (*Myriophyllum spicatum* L.) in the Little Quinnesec Falls Project (FERC #2536)

Site Code	Year	Latitude & Longitude Coordinates	Present (Y/N)	Rooted (Y/N)	Number of Plants	Surface Area (sq. ft).	Surface Area (acres)	% Project boundary acres (349 acres)	Weevil evidence (Y/N)[1]	Comments
A	2004	45.78759 -88.03029	Y	N	1	2	0.00005	0.000000		Floating un-rooted mass (ca. 4 square feet) of *M. spicatum* at entrance to small bay.
A	2006		Y	Y	2	4	0.00009	0.000000	N	After absence in 2005, two rooted *M. spicatum* in 2006.
A	2007		Y	Y	2	4	0.00009	0.000000	N	Two rooted *M. spicatum* plants among abundant native milfoil and bladderwort.
A	2008		Y	Y	12	24	0.00028	0.000001	N	Twelve rooted *M. spicatum* plants among abundant native milfoil and bladderwort.
B	2005	45.78848 -88.03040	Y	N	1	2	0.00005	0.000000		Small un-rooted mass (ca. 2 square feet) of *M. spicatum* floating downstream.
C	2002	45.79125 -88.02352	Y	Y	2	4	0.00009	0.000000		Two rooted plants present in 2002, but absent in subsequent years.
D	2004	45.79701 -88.00139	Y	Y	6	12	0.00028	0.000001		A few rooted plants of *M. spicatum* , mixed with a variety of native aquatic plants.
D	2005		Y	Y	10	20	0.00046	0.000001		A few rooted plants of *M. spicatum* , mixed with a variety of native aquatic plants.
D	2006		Y	Y	100	200	0.00459	0.000013	N	Rooted plants have increased in number to ca. 100 rooted plants approximately 150 feet in either direction from the GPS point.
D	2007		Y	Y	100	200	0.00459	0.000013	N	Rooted plants at about the same number and dispersion as in 2006.
D	2008		N							Chemically treated area with no *M. spicatum* and few other macrophytes observed.
E	2004	45.7963 -87.99399	Y	N	1	2	0.00005	0.000000		Floating un-rooted mass (ca. 2 square feet) of *M. spicatum* found along river's edge.
E	2006		Y	Y	4	8	0.00018	0.000001	N	After an absence in 2005, 4 rooted plants were present in 2006. These are downslope from several houses on the bank and docks that accommodate boats and pontoon boats.

Table 1. History of Eurasian Water Milfoil (*Myriophyllum spicatum* L.) in the Little Quinnesec Falls Project (FERC #2536)

Site Code	Year	Latitude & Longitude Coordinates	Present (Y/N)	Rooted (Y/N)	Number of Plants	Surface Area (sq. ft).	Surface Area (acres)	% Project boundary acres (349 acres)	Weevil evidence (Y/N)[1]	Comments
E	2007		Y	Y	3	6	0.00014	0.000000		Three rooted plants observed in 2007 in conditions similar to 2006.
E	2008		N							None were present in the 2008 survey. Few aquatic macrophytes present; significant filamentous algae present.
F	2004	45.7921 -87.98744	Y	N	1	2	0.00005	0.000000		Floating un-rooted mass (ca. 2 square feet) of *M. spicatum* found along river's edge right at the mouth of Fumee Creek.
F	2006		Y	Y	2	4	0.00009	0.000000	N	Two rooted *M. spicatum* found along river's edge right at the mouth of Fumee Creek.
F	2007		Y	Y	2	4	0.00009	0.000000	N	Two rooted *M. spicatum* found along river's edge right at the mouth of Fumee Creek.
F	2008		N							No *M. spicatum* observed (only native milfoil)
G	2004	45.77982 -87.98366	Y	N	1	2	0.00005	0.000000		Floating un-rooted mass (ca. 2 square feet) of *M. spicatum* caught along river's edge upstream of fire dock.
H	2004	45.77453 -87.98065	Y	N	1	2	0.00005	0.000000		Floating un-rooted mass (ca. 2 square feet) caught along river's edge.
H	2007		Y	Y	15	30	0.00069	0.000002	N	Fifteen rooted *M. spicatum* (each ca. 2 sq ft) were observed among a diverse community of native aquatic plants. Eight of these plants were just upstream of the downstream tip of the island on the west side (river side) of the island and seven were just upstream of the downstream tip of the island on east side of the island.
H	2008		N	N						No *M. spicatum* observed in 2008.
I	2002	45.79204 -87.98893	Y	Y	3	6	0.00014	0.000000		A few rooted plants scattered within a species-rich community of native aquatic plants. This was original site for *M. spicatum* in the Little Quinnesec Falls Project area.

Table 1. History of Eurasian Water Milfoil (*Myriophyllum spicatum* L.) in the Little Quinnesec Falls Project (FERC #2536)

Site Code	Year	Latitude & Longitude Coordinates	Present (Y/N)	Rooted (Y/N)	Number of Plants	Surface Area (sq. ft).	Surface Area (acres)	% Project boundary acres (349 acres)	Weevil evidence (Y/N)[1]	Comments
I	2003		Y	Y	4	12	0.00028	0.000001		A few rooted plants scattered within a species-rich community of native plants.
I	2004		Y	Y	4	12	0.00028	0.000001		A few rooted plants scattered within a species-rich community of native plants.
I	2005		Y	Y	4	12	0.00028	0.000001		A few rooted plants scattered within a species-rich community of native plants.
I	2006		N							All *M. spicatum* were absent.
I	2007		N							The low water prevented entry into this bay in 2007. We assume no change since 2006.
I	2008		Y	Y	9	18	0.00021	0.000001	N	Nine plants scattered in channel between long bay and short bay.
J	2006	45.79119 -88.01104	Y	N	1	2	0.00005	0.000000	N	Floating un-rooted mass (ca. 2 sq. feet) of *M. spicatum* in area of diverse native plants.
J	2007		Y	N	3	6	0.00014	0.000000	N	Floating un-rooted plant fragments (ca. 6 sq. feet) of *M. spicatum* in area of diverse native plants.
J	2008		N							No *M. spicatum* observed in 2008.
K	2006	45.78674 -88.034822	Y	Y	3	6	0.00014	0.000000	N	Three rooted *M. spicatum* (each ca. 2 sq ft) observed in a bed of yellow water lilies.
K	2007		Y	Y	100	200	0.00459	0.000013	N	Rooted plants have increased in number to ca. 100 rooted plants in an area approximately 100x300 feet. These plants are mixed in with *Nuphar, Valisineria*, and *Potamogeton richardsonii*
K	2008		Y	Y	200	400	0.00918	0.000026	N	Rooted plants have increased in number to ca. 200 rooted plants in an area approximately 100x300 feet. These plants are mixed in with *Nuphar, Valisineria*, and *Potamogeton richardsonii*

Table 1. History of Eurasian Water Milfoil (*Myriophyllum spicatum* L.) in the Little Quinnesec Falls Project (FERC #2536)

Site Code	Year	Latitude & Longitude Coordinates	Present (Y/N)	Rooted (Y/N)	Number of Plants	Surface Area (sq. ft).	Surface Area (acres)	% Project boundary acres (349 acres)	Weevil evidence (Y/N)[1]	Comments
L	2006	45.796423 -87.996198	Y	Y	15	30	0.00069	0.000002	N	Fifteen rooted *M. spicatum* (each ca. 2 sq ft) were observed among a diverse community of native aquatic plants.
L	2007		Y	Y	15	30	0.00069	0.000002	N	Low water in 2007 prevented access into all parts of this bay, so it was estimated that the same number of rooted *M. spicatum* were present as in 2006 (among a diverse community of native aquatic plants).
L	2008		N							This area was chemically treated in 2007 and 2008.
M	2006	45.78440 -87.984675	Y	Y	1	2	0.00005	0.000000	N	An individual rooted plant of *M. spicatum* (ca. 2 square feet) was observed among native plants at the mouth of a small bay.
M	2007		N							No *M. spicatum* were observed in 2007.
M	2008		N							No *M. spicatum* were observed in 2008.
N	2006	45.780751 -87.984406	Y	Y	6	12	0.00028	0.000001	N	Six individual rooted *M. spicatum* (each ca. 2 sq ft) observed among a community of native plants at the mouth of a small bay.
N	2007		Y	Y	6	12	0.00028	0.000001	N	Low water conditions during the 2007 survey prevented access to this shallow bay; we therefore assume conditions to be the same as in 2006.
N	2008		N	N						Low backwater conditions during the 2008 survey prevented thorough access to this shallow bay.
O	2006	45.791406 -87.985502	Y	Y	7	14	0.00032	0.000001	N	Seven individual rooted *M. spicatum* (each ca. 2 sq ft) observed among a diverse community of native plants in a bay upstream of Verso park.
O	2007		Y	Y	6	12	0.00028	0.000001	N	Six individual rooted *M. spicatum* (each ca. 2 sq ft) observed among a community of native plants in bay upstream of Verso park.

Table 1. History of Eurasian Water Milfoil (*Myriophyllum spicatum* L.) in the Little Quinnesec Falls Project (FERC #2536)

Site Code	Year	Latitude & Longitude Coordinates	Present (Y/N)	Rooted (Y/N)	Number of Plants	Surface Area (sq. ft).	Surface Area (acres)	% Project boundary acres (349 acres)	Weevil evidence (Y/N)[1]	Comments
O	2008		N							No *M. spicatum* were observed in 2008. This area was chemically treated.
P	2007	45.790 -88.041	Y	Y	15	30	0.00069	0.000002	N	This was a new find in 2007 in an area just below the Big Quinnesec Dam on the north side of the river in a bay with little or no current. Distributed in an area of 10x20 feet.
P	2008		N	N						No *M. spicatum* were observed in 2008.
Q	2007	45.7949 -88.0025	Y	Y	15	30	0.00069	0.000002	N	This new area was in the area where old man-made excavations (canals) were made. These plants were scattered throughout the backwater channel just outside of the created channels.
Q	2008		N							No *M. spicatum* were observed in 2008.
R	2007	45.7956 -88.0026	Y	Y	2	4	0.00009	0.000000		Two rooted plants present in 2007 among native plants.
R	2008		N							No *M. spicatum* were observed in 2008.
S	2007	45.789 -87.987	Y	Y	6	12	0.00028	0.000001	N	Six rooted *M. spicatum* (each ca. 2 sq ft) were observed among a community of native plants in quiet water along the river's edge.
S	2008		N							No *M. spicatum* were observed in 2008.
T	2008	45.79036 -88.03532	Y	Y	6	12	0.00028	0.000001	N	Six rooted *M. spicatum* (each ca. 2 sq ft) were observed among a community of native plants in quiet water along the river's edge.
Z	2008	The area downstream of LQF Dam	N							*M. spicatum* was not observed in the portion of the project area that is downstream of the Little Quinnesec Falls Dam.

[1] *Field staff began checking for evidence of weevil herbivory on M. spicatum in 2006.*

Table 2. Summary of Total Plant Observations of Eurasian Water Milfoil (EWM) in the Little Quinnesec Falls Project (FERC #2536)

Year of Survey	Number of Sites Observed with EWM	Estimated Number of Plants	Surface Area (square feet)[1]	Surface Area (acres)[1]	Percent Project Boundary Acres[2]
2002	2	5	10	0.00023	0.000001
2003	1	4	12	0.00028	0.000001
2004	2	15	34	0.00078	0.000002
2005	2	14	32	0.00073	0.000002
2006	8	139	278	0.00638	0.000018
2007	14[3]	290	580	0.01331	0.000038
2008	4	213	426	0.00978	0.000028

[1] *The surface area is based on the total number of plants (rooted and un-rooted) and assumes two square feet of surface area coverage (as viewed from above) for each plant.*

[2] *Calculation of percent project boundary acres assumes 349 acres for the project area.*

[3] *The 2007 report indicated thirteen sites when, in fact, there were fourteen..*

APPENDIX B
(PHOTOS)

Photo 1. *Mryiophyllum spicatum* (Eurasian water milfoil) with a typical number of leaflets (14 on this specimen -counting on one side of the leaf).

Photo 2. Eurasian water milfoil leaf with a typical number of leaflets (14 on this specimen -counting on one side of the leaf).

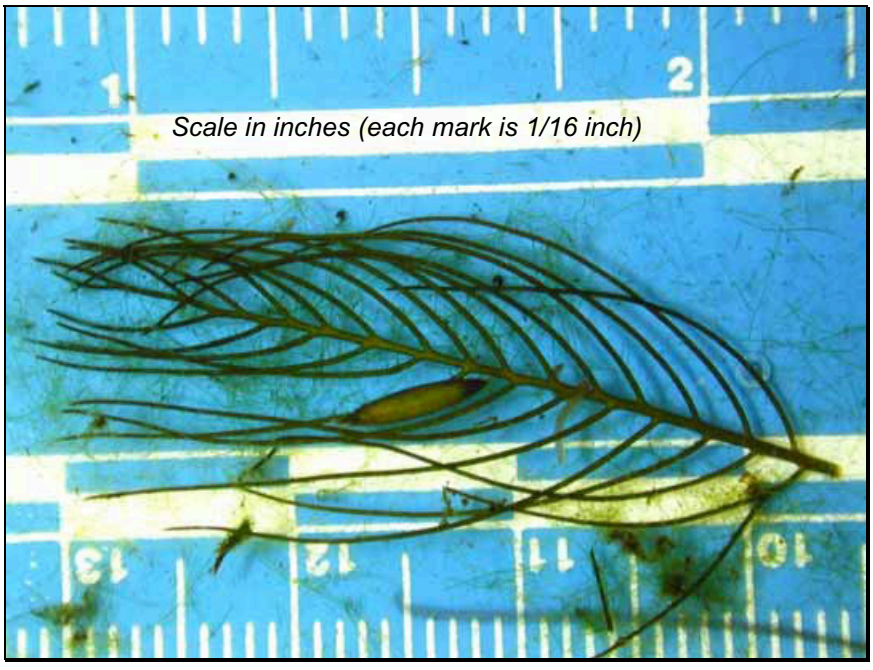


Photo 3. Eurasian water milfoil leaf with a typical number of leaflets and some calcium precipitate encrust-ing the leaf (this specimen was from the human-made channel designated Location D on Figure 1).

Photo 4. Eurasian water milfoil leaf displaying no evidence of weevil damage to the stems. (Despite careful inspection, no weevil evidence was detected on Eurasian water milfoil in the Little Quinnesec Falls population.)

APPENDIX C

Report on 2008 Herbicide Treatment for Eurasian Water Milfoil at selected sites in the Little Quinnesec Falls Project Area

By
Tom J. Witt, Resources Manager
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CONSOLIDATED WATER POWER COMPANY
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A subsidiary of NewPage Corporation

September 29, 2008

Dean Premo – White Water Associates, Inc.

Eurasian Water Milfoil Chemical Treatment Report for 2008 – Little Quinnesec Falls (No. 2536) Hydroelectric Project

Dear Mr. Premo:

The Stora Enso Niagara mill (now under NewPage Corporation ownership) submitted to FERC a fall 2006 Eurasian Water Milfoil (EWM) Control Plan for Article 409. This plan was accepted by FERC on February 7, 2007 (Project No. 2536-071). Three project backwater areas where treated chemically with 2,4 D in 2007. The 2007 chemical results were ineffective. Consultation with the MDNR and WDNR indicated another attempt was warranted in 2008. The focus of the 2008 chemical treatment was to apply 2,4 D again at the three Michigan areas before the river temperature reached 60 F. Chemical treatment dosage would be at 150#/acre, followed by a second treatment 4-6 weeks later at 100#/acre.

TIME SEQUENCE

3/12/08 - Permit submitted to Michigan DEQ for approval applying 2,4 D chemical at 150# per acre to three Michigan backwater areas and then 4-6 weeks later at 100#/acre.

4/30/08 - Permit approved by Michigan DEQ for chemical treatment by Wisconsin Lake and Pond Resource, LLC. Permit # 08-98-1309-0.

5/29/08 - Wisconsin Lake and Pond Resource LLC applied 2,4 D chemical at 150#/acre to the three Michigan permit approved areas (3.98 acres total). Aerial A-1 provides the location of all 3 sites on the Menominee River. Aerials A-2, A-3 and A-4 give an enlarged view of the individual treatment areas along with the non-treatment control areas. The aquatic vegetation surveys were completed per the MDEQ procedure prior to chemically treating each site. These surveys are referenced as Table 1-A, 1-B and 1-C. River temperature was approximately 56 degrees F on this day.

7/09/08 - Follow-up chemical effectiveness aquatic vegetation surveys completed with Wisconsin Lake and Pond Resource, LLC. Aquatic Vegetation Surveys (Tables 2-A, 2-B and 2-C) were completed similarly to the 5/29/08 surveys.

7/10/08 – Wisconsin Lake and Pond Resource, LLC applied 2,4 D chemical at 100#/acre to the three Michigan permit approved areas. If an area was observed free of Eurasian Water Milfoil, the area was not chemically treated again (mainly case for portions of sites A and B and all of H).

8/6/08 - Follow-up chemical effectiveness aquatic vegetation surveys completed with Wisconsin Lake and Pond Resource, LLC. Aquatic Vegetation Surveys (Tables 3-A, 3-B and 3-C) were completed similarly to the 5/29/08 surveys.

8/22/08 – Faxed chemical treatment data with aquatic vegetation surveys to MDEQ per permit requirements.

Chemical Treatment Notes

Site #1: AVAS A, B, C and D (aerial map A-2)

1. Dye was added after the treatment area with no movement or flow detected.
2. AVAS A and B areas were estimated at 0.48 acres for chemical treatment.
3. EWM in AVAS A and B ranged between 2-20% of the vegetation prior to chemical treatment.
4. Treating AVAS A and B at 150 #/acre was 95% effective with EWM elimination.
5. The second treatment at 100#/acre was applied only to area where EWM remained.
6. The last aquatic vegetation survey revealed there was a reduction in natural aquatic vegetation density for AVAS A and B. This is most likely a result of the chemical treatment impact in the man-made canal.
7. Most abundant species were chara, EWM, native milfoil, yellow waterlily, coontail and bulrush. All but EWM were present in the last aquatic vegetation surveys.

Site #2: AVAS E, F and G (aerial map A-3)

1. Dye was added in AVAS F indicating no detectable flow.
2. AVAS E and F areas were estimated at 2.87 acres for chemical treatment.
3. EWM in AVAS E and F ranged between 2-20% and 20-60% of the vegetation prior to chemical treatment.
4. Treating AVAS A and B at 150 #/acre was 95% effective with EWM elimination.
5. The second treatment at 100#/acre was applied to both the AVAS E and F areas.
6. The last aquatic vegetation survey did not indicate a reduction in natural aquatic vegetation density for AVAS E and F.
7. Most abundant species were EWM, flat stem pondweed, wild celery, yellow waterlily and coontail. All were present in all surveys. Chemical treatment did not impact the non-EWM species.

Site #3: AVAS H and I (aerial map A-4)

1. Dye was added in AVAS H indicating no detectable flow.
2. AVAS H and I area was estimated at 0.63 acres for chemical treatment.
3. EWM in AVAS H ranged between 2-20% of the vegetation prior to chemical treatment.
4. Treating AVAS H at 150 #/acre was 100% effective with EWM elimination.
5. The second treatment at 100#/acre was not applied since no EWM was present.
6. The last aquatic vegetation survey did not indicate a reduction in natural aquatic vegetation density for AVAS E and F.
7. Most abundant species were hard to detail because the three surveys show a diverse culture that change over this time. Chemical treatment did not appear to impact the non-EWM species.

Summary

The 2,4 D chemical treatment was effective at greatly reducing or eliminating the Eurasian Water Milfoil at the 150#/acre dosage prior to the river reaching 60 degrees F. Chemical treatment did negatively impact the diverse aquatic vegetation at site #1 for AVAS A and B, but not at the other chemically treated areas (AVAS E, F and H).

Recommendations

Eurasian Water Milfoil appears to be effectively eliminated at the 150#/acrea chemical treatment level within the three Michigan sites. These three Michigan treatment sites should be monitored in 2009 without any further chemical treatment to evaluate the recovery of natural river aquatic vegetation re-establishing itself and the rate if any at which EWM propagates. No other project boundary areas are recommended for 2009 chemical treatment due to the low EWM counts in the four observed EWM sites identified in the 2008 "Monitoring The Little Quinnesec Falls Hydroelectric Project for Eurasian Water Milfoil and Purple Loosestrife" report. NewPage will review this recommendation with the WDNR, MDNR and U.S. Fish and Wildlife agencies.

There is a potential site (K reference in the "Monitoring" report) just downstream of the Big Quinnesec Falls dam in the main river channel where EWM has shown accelerated growth over the last two years. This area is not recommended for chemical treatment at this time. The area could be a potential for weevil introduction, as none were observed in this area over the last two years. NewPage will review this opportunity with the WDNR, MDNR and U.S. Fish and Wildlife agencies.

Sincerely,

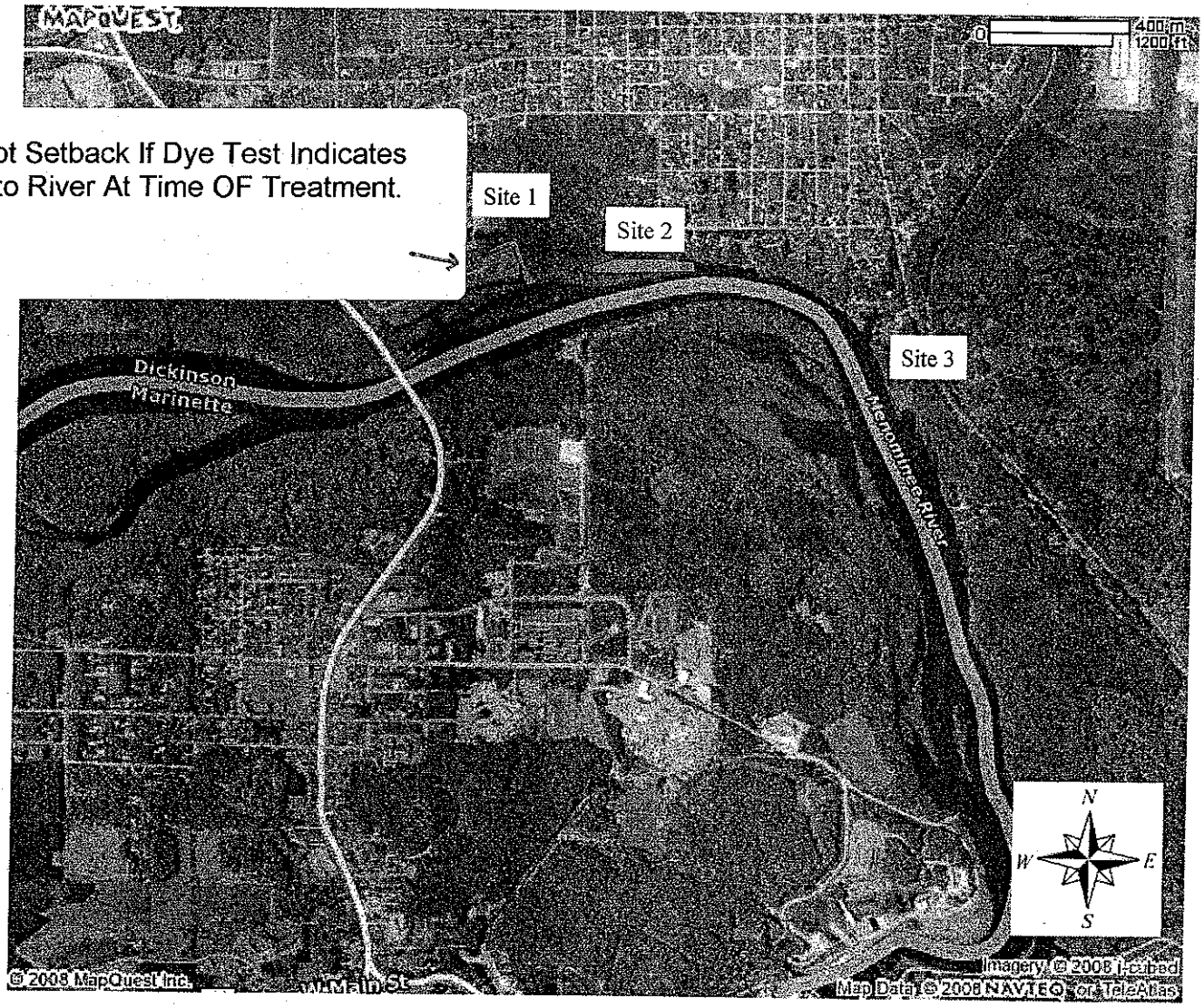
CONSOLIDATED WATER POWER COMPANY

Thomas J. Witt
Resources Manager

cc: File, OM-40-50 Ea Project, 2008 Annual Exotic Species - Article 409 File

Aerial A-1

Proposed areas for treatment of Eurasian watermilfoil in 2008 on the Menominee River, Dickinson County, MI. Proposed herbicide: Navigate® (granular 2,4-D).



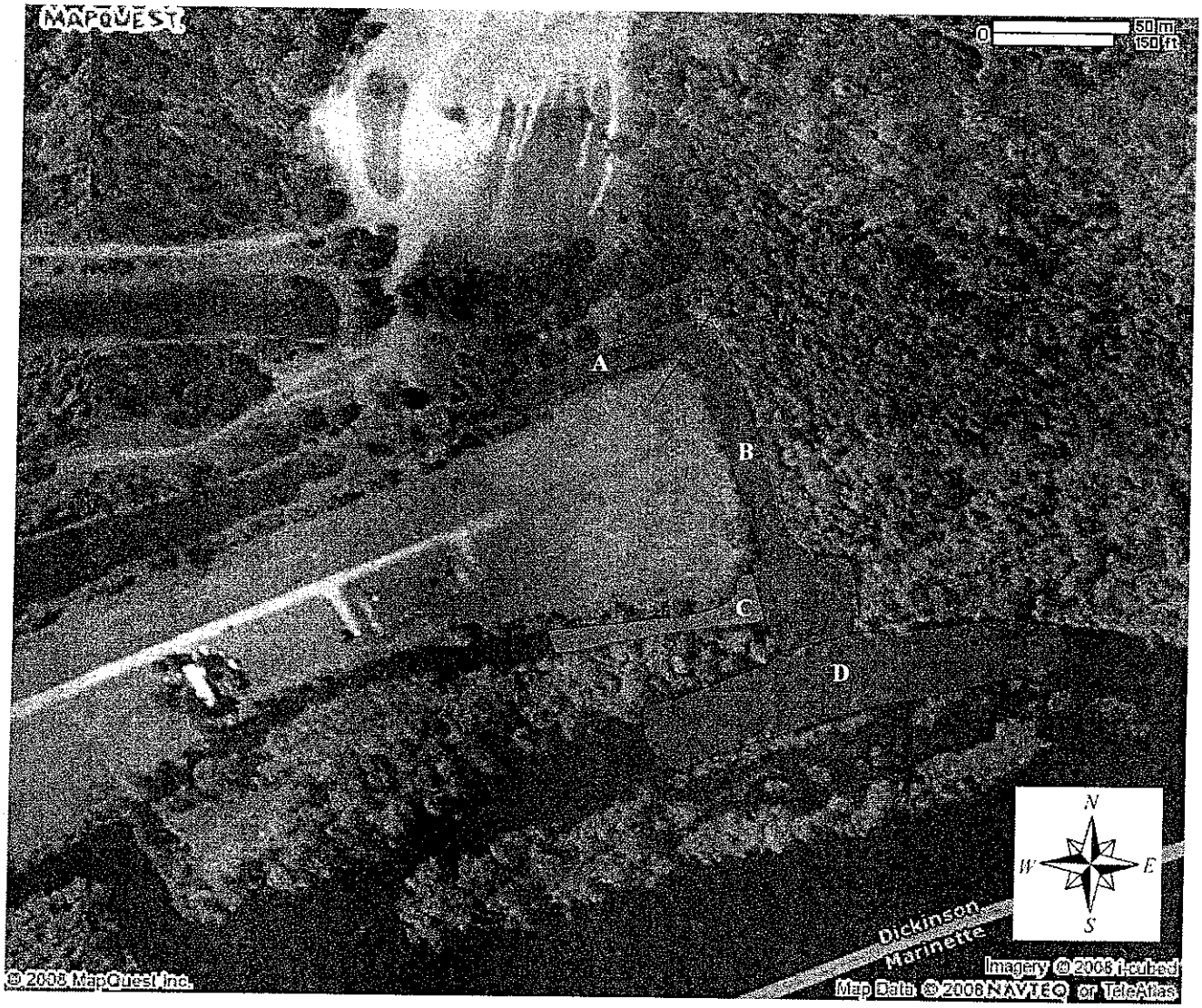
Site 1: 700' x 30' = 0.48 acre
Site 2: 1000' x 125' = 2.87 acre
Site 3: 230' x 120' = 0.63 acre
Total 3.98 acre

DEQ

Approved Treatment Map for 2008
Permit Number: 08-98-1309-0
Map 1 of 4

Aerial A-2

Proposed treatment area #1, Menominee River, Dickinson County, MI. Proposed herbicide: Navigate® (granular 2,4-D).



Aquatic Vegetation Assessment Sites (AVAS)

Proposed treatment areas (Sites A & B <5 ft deep)

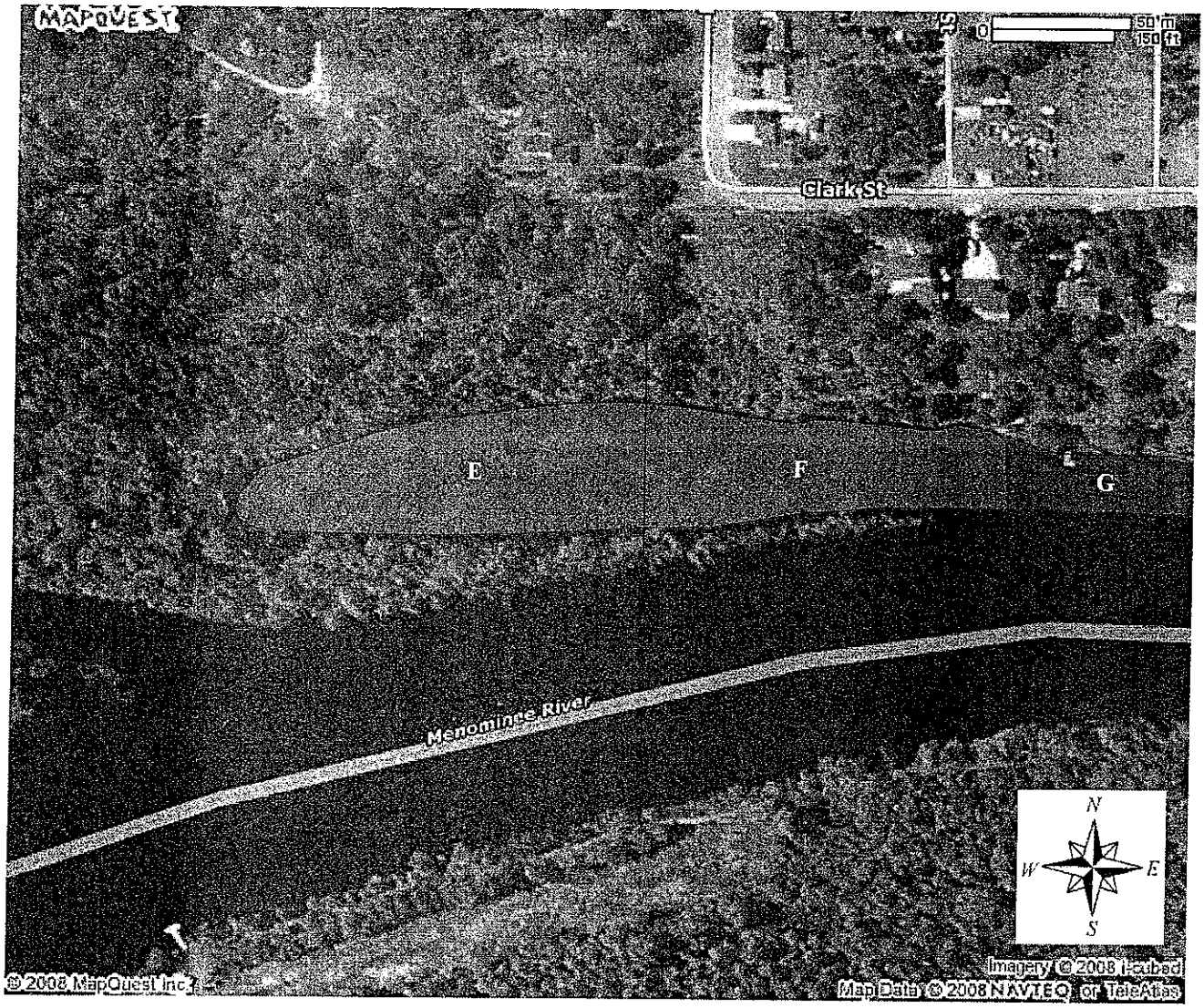
Untreated (control) areas (Sites C & D <5 ft deep)

DEQ

Approved Treatment Map for 2008
Permit Number: 03-98-1309-2
Map 2 of 4 D

Aerial A-3

Proposed treatment area #2, Menominee River, Dickinson County, MI. Proposed herbicide: Navigate® (granular 2,4-D).



Aquatic Vegetation Assessment Sites (AVAS)

Proposed treatment areas (Site E <5 ft deep, Site F max 10 ft deep)

Untreated (control) area (Site G max 10 ft deep)

DEQ

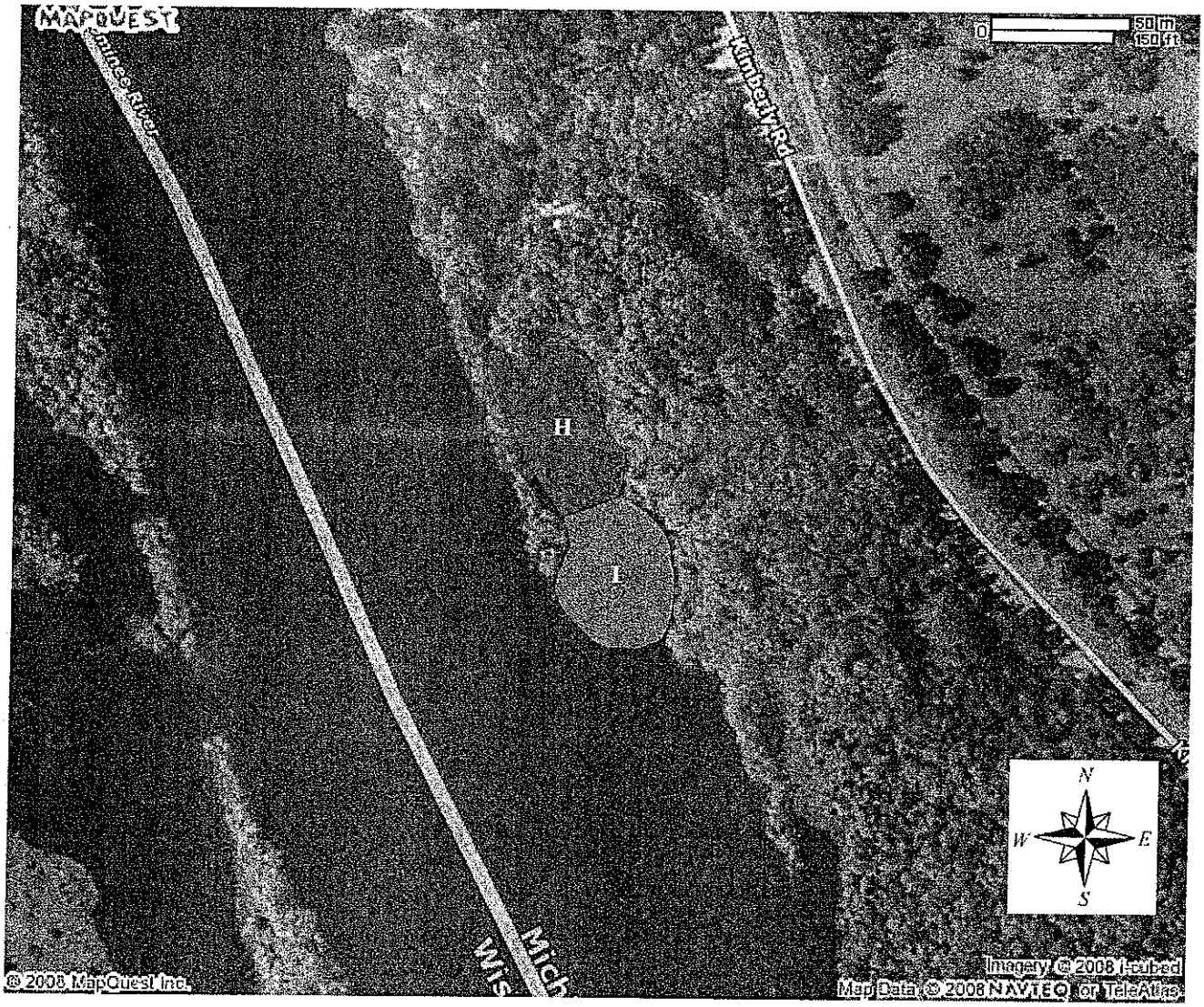
Approved Treatment Map for 2008

Permit Number: [illegible]

Map 2 of 4

Aerial A-4

Proposed treatment area #3, Menominee River, Dickinson County, MI, Proposed herbicide: Navigate® (granular 2,4-D).



Aquatic Vegetation Assessment Sites (AVAS)

Proposed treatment area (Site H <5 ft deep)

Untreated (control) area (Site I <5 ft deep)

DEQ

Approved Treatment Map for 2008
Permit Number: [illegible]
Map 4 of 4

Site: Area 1

Lake Name: Menominee River County: Dickinson Surveyor Name: Brad Roost - Wisc. Lake + Pond Resource Survey Date: 5/29/08

Table 1-A

Standard Aquatic Vegetation Assessment Site Species Density Sheet

Code No.	Plant Name	Aquatic Vegetation Assessment Site Numb NO. A	NO. B	NO. C	NO. D	NO. E	NO. F	NO. G	NO. H	Code No.	Plant Name	Aquatic Vegetation Assessment Site Numb NO. I	NO. J	NO. K	NO. L	NO. M	NO. N	NO. O	NO. P
1	Eurasian watermilfoil	B	B							1	Eurasian watermilfoil								
2	Curly leaf pondweed									2	Curly leaf pondweed								
3	Chara	D	D	C	C					3	Chara								
4	Thin leaf pondweed									4	Thin leaf pondweed								
5	Flat stem pondweed			A						5	Flat stem pondweed								
6	Robbins pondweed									6	Robbins pondweed								
7	Variable pondweed									7	Variable pondweed								
8	White stem pondweed									8	White stem pondweed								
9	Richardsons pondweed	A	A		C					9	Richardsons pondweed								
10	Illinois pondweed									10	Illinois pondweed								
11	Large leaf pondweed									11	Large leaf pondweed								
12	American pondweed									12	American pondweed								
13	Floating leaf pondweed	A	A							13	Floating leaf pondweed								
14	Water stargrass									14	Water stargrass								
15	Wild Celery				C					15	Wild Celery								
16	Arrowhead (submergent)									16	Arrowhead (submergent)								
17	Native milfoil	B	C	C						17	Native milfoil								
18	Whorled watermilfoil									18	Whorled watermilfoil								
19	Various leaf watermilfoil									19	Various leaf watermilfoil								
20	Coontail									20	Coontail								
21	Elodea									21	Elodea								
22	Bladderwort									22	Bladderwort								
23	Bladderwort (mini)									23	Bladderwort (mini)								
24	Buttercup									24	Buttercup								
25	Najas spp.									25	Najas spp.								
26	Brittle naiad									26	Brittle naiad								
27	Sago pondweed									27	Sago pondweed								
28										28									
29										29									
30	White waterlily									30	White waterlily								
31	Yellow waterlily	A	A	A						31	Yellow waterlily								
32	Watershield									32	Watershield								
33	Small duckweed									33	Small duckweed								
34	Great duckweed									34	Great duckweed								
35	Watermeal									35	Watermeal								
36	Arrowhead									36	Arrowhead								
37	Pickerelweed									37	Pickerelweed								
38	Arrow arum									38	Arrow arum								
39	Cattail	A	B	A						39	Cattail								
40	Bulrush	A	A	A	C					40	Bulrush								
41	Iris									41	Iris								
42	Swamp Loosestrife									42	Swamp Loosestrife								
43	Purple Loosestrife									43	Purple Loosestrife								
44										44									
45										45									

A: ≤ 2%
B: > 2% to ≤ 20%
C: > 20% to ≤ 60%
D: >60%

Prior to treatment, a dye test was performed at the outlet of Treatment Site 1. There was no flow out into the river.

Site: Area 2

Lake Name: Menominee River County: Dickinson Surveyor Name: Brad Roost - Wisc. Lake + Pond Resource Survey Date: 5/29/08

Table 1-B

Standard Aquatic Vegetation Assessment Site Species Density Sheet

Code No.	Plant Name	Aquatic Vegetation Assessment Site Numb NO. A	NO. B	NO. C	NO. D	NO. E	NO. F	NO. G	NO. H
1	Eurasian watermilfoil					C	B		
2	Curly leaf pondweed								
3	Chara							C	
4	Thin leaf pondweed								
5	Flat stem pondweed					B	B	C	
	Small pondweed					B	B		
6	Robbins pondweed								
7	Variable pondweed								
8	White stem pondweed								
9	Richardsons pondweed								
10	Illinois pondweed								
11	Large leaf pondweed								
12	American pondweed								
13	Floating leaf pondweed								
14	Water stargrass								
15	Wild Celery						B		
16	Arrowhead (submergent)								
17	Native milfoil								
18	Whorled watermilfoil								
19	Various leaf watermilfoil								
20	Coontail				B	B			
21	Elodea						B		
22	Bladderwort								
23	Bladderwort (mini)								
24	Buttercup								
25	Najas spp.								
26	Brittle naiad								
27	Sago pondweed								
28									
29									
30	White waterlily								
31	Yellow waterlily				C	B			
32	Watershield								
33	Small duckweed								
34	Great duckweed								
35	Watermeal								
36	Arrowhead								
37	Pickerelweed								
38	Arrow arum								
39	Cattail				C				
40	Bulrush				B	B			
41	Iris								
42	Swamp Loosestrife								
43	Purple Loosestrife								
44									
45									

Code No.	Plant Name	Aquatic Vegetation Assessment Site Numb NO. I	NO. J	NO. K	NO. L	NO. M	NO. N	NO. O	NO. P
1	Eurasian watermilfoil								
2	Curly leaf pondweed								
3	Chara								
4	Thin leaf pondweed								
5	Flat stem pondweed								
6	Robbins pondweed								
7	Variable pondweed								
8	White stem pondweed								
9	Richardsons pondweed								
10	Illinois pondweed								
11	Large leaf pondweed								
12	American pondweed								
13	Floating leaf pondweed								
14	Water stargrass								
15	Wild Celery								
16	Arrowhead (submergent)								
17	Native milfoil								
18	Whorled watermilfoil								
19	Various leaf watermilfoil								
20	Coontail								
21	Elodea								
22	Bladderwort								
23	Bladderwort (mini)								
24	Buttercup								
25	Najas spp.								
26	Brittle naiad								
27	Sago pondweed								
28									
29									
30	White waterlily								
31	Yellow waterlily								
32	Watershield								
33	Small duckweed								
34	Great duckweed								
35	Watermeal								
36	Arrowhead								
37	Pickerelweed								
38	Arrow arum								
39	Cattail								
40	Bulrush								
41	Iris								
42	Swamp Loosestrife								
43	Purple Loosestrife								
44									
45									

A: ≤ 2%
B: > 2% to ≤ 20%
C: > 20% to ≤ 60%
D: >60%

Site: Area 3

Lake Name: Menominee River County: Dickinson Surveyor Name: Brad Roost - Wisc. Lake + Pond Resource Survey Date: 5/29/08

Table 1-C

Standard Aquatic Vegetation Assessment Site Species Density Sheet

Code No.	Plant Name	Aquatic Vegetation Assessment Site Numb NO. A	NO. B	NO. C	NO. D	NO. E	NO. F	NO. G	NO. H
1	Eurasian watermilfoil								B
2	Curly leaf pondweed								
3	Chara								C
4	Thin leaf pondweed								
5	Flat stem pondweed								B
6	Robbins pondweed								
7	Variable pondweed								
8	White stem pondweed								
9	Richardsons pondweed								B
10	Illinois pondweed								
11	Large leaf pondweed								
12	American pondweed								
13	Floating leaf pondweed								
14	Water stargrass								
15	Wild Celery								
16	Arrowhead (submergent)								
17	Native milfoil								B
18	Whorled watermilfoil								
19	Various leaf watermilfoil								
20	Coontail								
21	Elodea								C
22	Bladderwort								
23	Bladderwort (mini)								
24	Buttercup								
25	Najas spp.								
26	Brittle naiad								
27	Sago pondweed								
28									
29									
30	White waterlily								
31	Yellow waterlily								C
32	Watershield								
33	Small duckweed								
34	Great duckweed								
35	Watermeal								
36	Arrowhead								
37	Pickerelweed								
38	Arrow arum								
39	Cattail								B
40	Bulrush								B
41	Iris								
42	Swamp Loosestrife								
43	Purple Loosestrife								
44									
45									

Code No.	Plant Name	Aquatic Vegetation Assessment Site Numb NO. I	NO. J	NO. K	NO. L	NO. M	NO. N	NO. O	NO. P
1	Eurasian watermilfoil	B							
2	Curly leaf pondweed								
3	Chara	C							
4	Thin leaf pondweed								
5	Flat stem pondweed								
6	Robbins pondweed								
7	Variable pondweed								
8	White stem pondweed								
9	Richardsons pondweed	B							
10	Illinois pondweed								
11	Large leaf pondweed								
12	American pondweed								
13	Floating leaf pondweed								
14	Water stargrass								
15	Wild Celery								
16	Arrowhead (submergent)								
17	Native milfoil								
18	Whorled watermilfoil								
19	Various leaf watermilfoil								
20	Coontail								
21	Elodea	C							
22	Bladderwort								
23	Bladderwort (mini)								
24	Buttercup								
25	Najas spp.								
26	Brittle naiad								
27	Sago pondweed								
28									
29									
30	White waterlily								
31	Yellow waterlily	B							
32	Watershield								
33	Small duckweed								
34	Great duckweed								
35	Watermeal								
36	Arrowhead								
37	Pickerelweed								
38	Arrow arum								
39	Cattail								
40	Bulrush	B							
41	Iris								
42	Swamp Loosestrife								
43	Purple Loosestrife								
44									
45									

A: ≤ 2%
B: > 2% to ≤ 20%
C: > 20% to ≤ 60%
D: > 60%

Lake Name: Menominee River County: Dickinson Surveyor Name: Brad Roost Wisc. Lake + Pond Resource Site: Area 1 Survey Date: 7/9/08

Table 2-A

Standard Aquatic Vegetation Assessment Site Species Density Sheet

Code No.	Plant Name	Aquatic Vegetation Assessment Site Numb NO. A	NO. B	NO. C	NO. D	NO. E	NO. F	NO. G	NO. H
1	Eurasian watermilfoil	A			A				
2	Curly leaf pondweed								
3	Chara	D	D	B					
4	Thin leaf pondweed								
5	Flat stem pondweed	A	B	C	C				
6	Robbins pondweed								
7	Variable pondweed	A							
8	White stem pondweed								
9	Richardsons pondweed	A	B	B	A				
10	Illinois pondweed								
11	Large leaf pondweed								
12	American pondweed								
13	Floating leaf pondweed								
14	Water stargrass								
15	Wild Celery		A	C	C				
16	Arrowhead (submergent)								
17	Native milfoil				A				
18	Whorled watermilfoil								
19	Various leaf watermilfoil								
20	Coontail								
21	Elodea			A					
22	Bladderwort			A	A				
23	Bladderwort (mini)								
24	Buttercup								
25	Najas spp.								
26	Brittle naiad								
27	Sago pondweed	B	B	A	A				
28									
29									
30	White waterlily	A		A	B				
31	Yellow waterlily	B	B	B	B				
32	Watershield								
33	Small duckweed								
34	Great duckweed								
35	Watermeal								
36	Arrowhead								
37	Pickerelweed								
38	Arrow arum								
39	Cattail	B	B	B	B				
40	Bulrush		B	B	C				
41	Iris								
42	Swamp Loosestrife								
43	Purple Loosestrife								
44									
45									

Code No.	Plant Name	Aquatic Vegetation Assessment Site Numb NO. I	NO. J	NO. K	NO. L	NO. M	NO. N	NO. O	NO. P
1	Eurasian watermilfoil								
2	Curly leaf pondweed								
3	Chara								
4	Thin leaf pondweed								
5	Flat stem pondweed								
6	Robbins pondweed								
7	Variable pondweed								
8	White stem pondweed								
9	Richardsons pondweed								
10	Illinois pondweed								
11	Large leaf pondweed								
12	American pondweed								
13	Floating leaf pondweed								
14	Water stargrass								
15	Wild Celery								
16	Arrowhead (submergent)								
17	Native milfoil								
18	Whorled watermilfoil								
19	Various leaf watermilfoil								
20	Coontail								
21	Elodea								
22	Bladderwort								
23	Bladderwort (mini)								
24	Buttercup								
25	Najas spp.								
26	Brittle naiad								
27	Sago pondweed								
28									
29									
30	White waterlily								
31	Yellow waterlily								
32	Watershield								
33	Small duckweed								
34	Great duckweed								
35	Watermeal								
36	Arrowhead								
37	Pickerelweed								
38	Arrow arum								
39	Cattail								
40	Bulrush								
41	Iris								
42	Swamp Loosestrife								
43	Purple Loosestrife								
44									
45									

A: ≤ 2%
B: > 2% to ≤ 20%
C: > 20% to ≤ 60%
D: > 60%

Site: Area 2

Lake Name: Menominee River County: Dickinson Surveyor Name: Brad Roost Wisc. Lake + Pond Resource Survey Date: 7/9/08

Table 2-B

Standard Aquatic Vegetation Assessment Site Species Density Sheet

Code No.	Plant Name	Aquatic Vegetation Assessment Site Number NO. A	NO. B	NO. C	NO. D	NO. E	NO. F	NO. G	NO. H
1	Eurasian watermilfoil					A	A	B	
2	Curly leaf pondweed								
3	Chara								
4	Thin leaf pondweed								
5	Flat stem pondweed					B	B	C	
6	Robbins pondweed								
7	Variable pondweed								
8	White stem pondweed								
9	Richardsons pondweed					B	B	B	
10	Illinois pondweed								
	Small pondweed					B	A		
11	Large leaf pondweed								
12	American pondweed								
13	Floating leaf pondweed								
14	Water stargrass								
15	Wild Celery					C	B	C	
16	Arrowhead (submergent)								
17	Native milfoil							B	
18	Whorled watermilfoil								
19	Various leaf watermilfoil								
20	Coontail								
	Water marigold							B	
21	Elodea							B	
22	Bladderwort					A	A		
23	Bladderwort (mini)								
24	Buttercup								
25	Najas spp.								
26	Brittle naiad								
27	Sago pondweed					B	A	B	
28									
29									
30	White waterlily						A		
31	Yellow waterlily					B	B	B	
32	Watershield								
33	Small duckweed								
34	Great duckweed								
35	Watermeal								
36	Arrowhead								
37	Pickerelweed								
38	Arrow arum								
39	Cattail					B	B	B	
40	Bulrush						A		
41	Iris								
42	Swamp Loosestrife								
43	Purple Loosestrife								
44									
45									

Code No.	Plant Name	Aquatic Vegetation Assessment Site Number NO. I	NO. J	NO. K	NO. L	NO. M	NO. N	NO. O	NO. P
1	Eurasian watermilfoil								
2	Curly leaf pondweed								
3	Chara								
4	Thin leaf pondweed								
5	Flat stem pondweed								
6	Robbins pondweed								
7	Variable pondweed								
8	White stem pondweed								
9	Richardsons pondweed								
10	Illinois pondweed								
11	Large leaf pondweed								
12	American pondweed								
13	Floating leaf pondweed								
14	Water stargrass								
15	Wild Celery								
16	Arrowhead (submergent)								
17	Native milfoil								
18	Whorled watermilfoil								
19	Various leaf watermilfoil								
20	Coontail								
21	Elodea								
22	Bladderwort								
23	Bladderwort (mini)								
24	Buttercup								
25	Najas spp.								
26	Brittle naiad								
27	Sago pondweed								
28									
29									
30	White waterlily								
31	Yellow waterlily								
32	Watershield								
33	Small duckweed								
34	Great duckweed								
35	Watermeal								
36	Arrowhead								
37	Pickerelweed								
38	Arrow arum								
39	Cattail								
40	Bulrush								
41	Iris								
42	Swamp Loosestrife								
43	Purple Loosestrife								
44									
45									

A: ≤ 2%
B: > 2% to ≤ 20%
C: > 20% to ≤ 60%
D: >60%

Site: Area 5

Lake Name: Menominee River County: Dickinson Surveyor Name: Brad Roost Survey Date: 7/9/08
Wisc. Lake + Pond Resource

Table 2-C

Standard Aquatic Vegetation Assessment Site Species Density Sheet

Code No.	Plant Name	Aquatic Vegetation Assessment Site Number NO. A	NO. B	NO. C	NO. D	NO. E	NO. F	NO. G	NO. H
1	Eurasian watermilfoil								
2	Curly leaf pondweed								
3	Chara								
4	Thin leaf pondweed								
5	Flat stem pondweed								C
6	Robbins pondweed								
7	Variable pondweed								B
8	White stem pondweed								
9	Richardsons pondweed								B
10	Illinois pondweed								
11	Large leaf pondweed								
12	American pondweed								
13	Floating leaf pondweed								
14	Water stargrass								
15	Wild Celery								D
	Water marigold								B
16	Arrowhead (submergent)								
17	Native milfoil								B
18	Whorled watermilfoil								
19	Various leaf watermilfoil								
20	Coontail								
21	Elodea								B
22	Bladderwort								B
23	Bladderwort (mini)								
24	Buttercup								
25	Najas spp.								
26	Brittle naiad								
27	Sago pondweed								
28									
29									
30	White waterlily								
31	Yellow waterlily								
32	Watershield								
33	Small duckweed								
34	Great duckweed								
35	Watermeal								
36	Arrowhead								
37	Pickerelweed								
38	Arrow arum								
39	Cattail								B
40	Bulrush								
	Burreed								B
41	Iris								
42	Swamp Loosestrife								
43	Purple Loosestrife								
44									
45									

Code No.	Plant Name	Aquatic Vegetation Assessment Site Number NO. I	NO. J	NO. K	NO. L	NO. M	NO. N	NO. O	NO. P
1	Eurasian watermilfoil								
2	Curly leaf pondweed								
3	Chara								
4	Thin leaf pondweed								
5	Flat stem pondweed	B							
6	Robbins pondweed								
7	Variable pondweed								
8	White stem pondweed								
9	Richardsons pondweed	B							
10	Illinois pondweed								
11	Large leaf pondweed								
12	American pondweed								
13	Floating leaf pondweed								
14	Water stargrass								
15	Wild Celery	C							
16	Arrowhead (submergent)								
17	Native milfoil								
18	Whorled watermilfoil								
19	Various leaf watermilfoil								
20	Coontail	B							
21	Elodea	C							
22	Bladderwort								
23	Bladderwort (mini)								
24	Buttercup								
25	Najas spp.								
26	Brittle naiad								
27	Sago pondweed								
28									
29									
30	White waterlily								
31	Yellow waterlily								
32	Watershield								
33	Small duckweed								
34	Great duckweed								
35	Watermeal								
36	Arrowhead	B							
37	Pickerelweed								
38	Arrow arum								
39	Cattail	C							
40	Bulrush								
	Burreed	B							
41	Iris								
42	Swamp Loosestrife								
43	Purple Loosestrife								
44									
45									

A: I < 2%
B: I > 2% to I < 20%
C: I > 20% to I < 60%
D: I > 60%

Lake Name: Menominee River County: Dickinson Surveyor Name: Brad Roost Site: Area 1
WI Lake + Pond Resource Survey Date: 8/6/08

Table 3-A

Standard Aquatic Vegetation Assessment Site Species Density Sheet

Code No.	Plant Name	Aquatic Vegetation Assessment Site Number NO. A	NO. B	NO. C	NO. D	NO. E	NO. F	NO. G	NO. H
1	Eurasian watermilfoil				A				
2	Curly leaf pondweed								
3	Chara	D	D	C					
4	Thin leaf pondweed								
5	Flat stem pondweed	A	B	C	C				
6	Robbins pondweed								
7	Variable pondweed	A							
8	White stem pondweed								
9	Richardsons pondweed	A	B	B	A				
10	Illinois pondweed								
11	Large leaf pondweed								
12	American pondweed								
13	Floating leaf pondweed								
14	Water stargrass								
15	Wild Celery		A	C	C				
	Water marigold		A						
16	Arrowhead (submergent)								
17	Native milfoil	A	A		A				
18	Whorled watermilfoil								
19	Various leaf watermilfoil								
20	Coontail				A				
21	Elodea			A					
22	Bladderwort			A	A				
23	Bladderwort (mini)								
24	Buttercup								
25	Najas spp.				A				
26	Brittle naiad								
27	Sago pondweed	B	B	A	A				
28									
29									
30	White waterlily	A		A	B				
31	Yellow waterlily	B	B	B	B				
32	Watershield								
33	Small duckweed								
34	Great duckweed								
35	Watermeal								
36	Arrowhead								
37	Pickerelweed								
38	Arrow arum								
39	Cattail	B	B	B	B				
40	Bulrush		B	B	C				
41	Iris								
42	Swamp Loosestrife								
43	Purple Loosestrife								
44									
45									

Code No.	Plant Name	Aquatic Vegetation Assessment Site Number NO. I	NO. J	NO. K	NO. L	NO. M	NO. N	NO. O	NO. P
1	Eurasian watermilfoil								
2	Curly leaf pondweed								
3	Chara								
4	Thin leaf pondweed								
5	Flat stem pondweed								
6	Robbins pondweed								
7	Variable pondweed								
8	White stem pondweed								
9	Richardsons pondweed								
10	Illinois pondweed								
11	Large leaf pondweed								
12	American pondweed								
13	Floating leaf pondweed								
14	Water stargrass								
15	Wild Celery								
16	Arrowhead (submergent)								
17	Native milfoil								
18	Whorled watermilfoil								
19	Various leaf watermilfoil								
20	Coontail								
21	Elodea								
22	Bladderwort								
23	Bladderwort (mini)								
24	Buttercup								
25	Najas spp.								
26	Brittle naiad								
27	Sago pondweed								
28									
29									
30	White waterlily								
31	Yellow waterlily								
32	Watershield								
33	Small duckweed								
34	Great duckweed								
35	Watermeal								
36	Arrowhead								
37	Pickerelweed								
38	Arrow arum								
39	Cattail								
40	Bulrush								
41	Iris								
42	Swamp Loosestrife								
43	Purple Loosestrife								
44									
45									

A: ≤ 2% B: > 2% to ≤ 20%
C: > 20% to ≤ 60% D: >60%

Lake Name: Menominee River County: Dickinson Surveyor Name: Brad Borst Site: Area 2 Survey Date: 8/6/08
WI Lake + Pond Resource

Standard Aquatic Vegetation Assessment Site Species Density Sheet

Table 3-B

Code No.	Plant Name	Aquatic Vegetation Assessment Site Numb NO. A	NO. B	NO. C	NO. D	NO. E	NO. F	NO. G	NO. H
1	Eurasian watermilfoil						A	A	
2	Curly leaf pondweed								
3	Chara								
4	Thin leaf pondweed								
5	Flat stem pondweed					B	B	B	
6	Robbins pondweed								
7	Variable pondweed								
8	White stem pondweed								
9	Richardsons pondweed					B	B	B	
10	Illinois pondweed								
11	Large leaf pondweed								
12	American pondweed								
13	Floating leaf pondweed								
14	Water stargrass								
15	Wild Celery					C	B	C	
16	Arrowhead (submergent)								
17	Native milfoil							B	
18	Whorled watermilfoil								
19	Various leaf watermilfoil								
20	Coontail					A			
21	Elodea					A	A		
22	Bladderwort					A	A		
23	Bladderwort (mini)								
24	Buttercup								
25	Najas spp.								
26	Brittle naiad								
27	Sago pondweed					A	A	A	
28									
29									
30	White waterlily						A		
31	Yellow waterlily					B	B	B	
32	Watershield								
33	Small duckweed								
34	Great duckweed								
35	Watermeal								
36	Arrowhead								
37	Pickerelweed								
38	Arrow arum								
39	Cattail					B	B	B	
40	Bulrush						A		
41	Iris								
42	Swamp Loosestrife								
43	Purple Loosestrife								
44									
45									

Code No.	Plant Name	Aquatic Vegetation Assessment Site Numb NO. I	NO. J	NO. K	NO. L	NO. M	NO. N	NO. O	NO. P
1	Eurasian watermilfoil								
2	Curly leaf pondweed								
3	Chara								
4	Thin leaf pondweed								
5	Flat stem pondweed								
6	Robbins pondweed								
7	Variable pondweed								
8	White stem pondweed								
9	Richardsons pondweed								
10	Illinois pondweed								
11	Large leaf pondweed								
12	American pondweed								
13	Floating leaf pondweed								
14	Water stargrass								
15	Wild Celery								
16	Arrowhead (submergent)								
17	Native milfoil								
18	Whorled watermilfoil								
19	Various leaf watermilfoil								
20	Coontail								
21	Elodea								
22	Bladderwort								
23	Bladderwort (mini)								
24	Buttercup								
25	Najas spp.								
26	Brittle naiad								
27	Sago pondweed								
28									
29									
30	White waterlily								
31	Yellow waterlily								
32	Watershield								
33	Small duckweed								
34	Great duckweed								
35	Watermeal								
36	Arrowhead								
37	Pickerelweed								
38	Arrow arum								
39	Cattail								
40	Bulrush								
41	Iris								
42	Swamp Loosestrife								
43	Purple Loosestrife								
44									
45									

A: ≤ 2%
B: > 2% to ≤ 20%
C: > 20% to ≤ 60%
D: >60%

Lake Name: Menominee River County: Dickinson Surveyor Name: Brad Roost, WI Lake + Pond Resource Site: Area 3 Survey Date: 8/6/08

Table 3-C

Standard Aquatic Vegetation Assessment Site Species Density Sheet

Code No.	Plant Name	Aquatic Vegetation Assessment Site Numb NO. A	NO. B	NO. C	NO. D	NO. E	NO. F	NO. G	NO. H
1	Eurasian watermilfoil								
2	Curly leaf pondweed								
3	Chara								
4	Thin leaf pondweed								
5	Flat stem pondweed								C
6	Robbins pondweed								
7	Variable pondweed								B
8	White stem pondweed								
9	Richardsons pondweed								B
10	Illinois pondweed								
11	Large leaf pondweed								
12	American pondweed								
13	Floating leaf pondweed								
14	Water stargrass								
15	Wild Celery								C
	Water marigold								B
16	Arrowhead (submergent)								
17	Native milfoil								B
18	Whorled watermilfoil								
19	Various leaf watermilfoil								
20	Coontail								
21	Elodea								B
22	Bladderwort								B
23	Bladderwort (mini)								
24	Buttercup								
25	Najas spp.								
26	Brittle naiad								
27	Sago pondweed								
28									
29									
30	White waterlily								
31	Yellow waterlily								
32	Watershield								
33	Small duckweed								
34	Great duckweed								
35	Watermeal								
36	Arrowhead								
37	Pickerelweed								
38	Arrow arum								
39	Cattail								B
40	Bulrush								
	Burreed								B
41	Iris								
42	Swamp Loosestrife								
43	Purple Loosestrife								
44									
45									

Code No.	Plant Name	Aquatic Vegetation Assessment Site Numb NO. E	NO. J	NO. K	NO. L	NO. M	NO. N	NO. O	NO. P
1	Eurasian watermilfoil								
2	Curly leaf pondweed								
3	Chara								
4	Thin leaf pondweed								
5	Flat stem pondweed	B							
6	Robbins pondweed								
7	Variable pondweed								
8	White stem pondweed								
9	Richardsons pondweed	B							
10	Illinois pondweed								
11	Large leaf pondweed								
12	American pondweed								
13	Floating leaf pondweed								
14	Water stargrass								
15	Wild Celery	C							
16	Arrowhead (submergent)								
17	Native milfoil								
18	Whorled watermilfoil								
19	Various leaf watermilfoil								
20	Coontail	B							
21	Elodea	C							
22	Bladderwort								
23	Bladderwort (mini)								
24	Buttercup								
25	Najas spp.								
26	Brittle naiad								
27	Sago pondweed								
28									
29									
30	White waterlily								
31	Yellow waterlily								
32	Watershield								
33	Small duckweed								
34	Great duckweed								
35	Watermeal								
36	Arrowhead	B							
37	Pickerelweed								
38	Arrow arum								
39	Cattail	C							
40	Bulrush								
	Burreed	B							
41	Iris								
42	Swamp Loosestrife								
43	Purple Loosestrife								
44									
45									

A: < 2%
B: > 2% to < 20%
C: > 20% to < 60%
D: > 60%

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