ORIGINAL

North American Hydro Holdings, LLC.
116 State Street, P.O. Box 167, Neshkoro, WI 54960 USA
Tel 920-293-4628 Fax 920-293-8087 Email nah@nahydro.com Web www.nahydro.com

November 27, 2012

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

RE: Middle Appleton Dam - FERC P-7264
Neenah Paper Inc. and NEW Hydro LLC
Article 405 – 2012 Invasive Species Monitoring Report

Dear Secretary:

On behalf of Neenah Paper Inc. and NEW Hydro LLC., North American Hydro Holdings hereby submits the 2012 Invasive Species Monitoring Report in accordance with Article 405 of the project License. Please find (1) original and (8) copies of the report including Agency comments.

To address the WDNR comments, the Licensee is agreeable to collaborating with the DNR and other hydro licensees to develop best management practices that reduce the introduction and spread of AIS. Once "Best Practices" are developed and published for use, the Licensee will consider ways of implementing these practices into an updated AIS plan. However, at this time the Licensee is not committed to address specific agency comments that are beyond the scope of the current Invasive Species Monitoring Plan.

Additionally, since Zebra Mussels are present both upstream and downstream of the impoundment, the WDNR has indicated that monitoring for zebra mussels can be discontinued at this time. However, the WDNR reserves the right to require monitoring in the future, as appropriate. The next invasive species monitoring will be conducted in 2014.

If you have any questions regarding this submittal please contact Mr. Jereme Klassy at 920-293-4628 (ext 322) or email at Jklassy@nahydro.com.

Sincerely,
North American Hydro Holdings
Agent for Licensee(s)

for Scott Klabunde
Executive Vice President of Operations

Attachments: Middle Appleton Dam - 2012 Invasive Species Monitoring Report with Agency Comments

CC: Jon Rom – Neenah Paper Inc.
Cheryl Laatsch – WDNR
Nick Utrup - FWS

Final
Invasive Species

2012 Monitoring Report
(Per License Article 405)

For the

Middle Appleton Dam Hydroelectric Project
FERC Project # 7264

Lower Fox River
Outagamie County, Wisconsin

Submitted by:

North East Wisconsin Hydro, Inc. (N.E.W.)
116 North State Street – P.O. Box 167
Neshkoro, Wisconsin 54960

November 21, 2012

Report Prepared
For
Neenah Paper, Inc. and N.E.W. Hydro, Inc.

Table of Contents

I. Project Area Description

The Middle Appleton Dam Hydroelectric Project, Federal Energy Regulatory Commission (FERC) Project #7264 is located on the Lower Fox River in the city of Appleton, Wisconsin within its corporate limits. The city of Appleton is located in east – central Wisconsin and specifically in south – central Outagamie County. The Lower Fox River empties into the southern end of Green Bay approximately 31 miles downstream from the project. Green Bay is a bay located along the northwest part of Lake Michigan.

The Lower Fox River has thirteen (13) dams spanning its shores, of which, the Appleton Dam is one. The impoundment of the project is 35.5 acres in size. It extends south – southwest upstream for approximately one half (.5) miles where the next dam is located between Appleton Lock # 2 and # 3. Downstream, the next dam is located approximately three quarters (.75) of a mile away. In association with the thirteen (13) dams are eighteen (18) lock structures.

The project is located within an urbanized and heavily industrialized area along the Lower Fox River known as the "flats". Plant growth is sparse and confined to only some of the shoreline area along this stretch of river.

The 2012 survey was performed in compliance with article 405. Article 405 of the License requires annual monitoring for Purple Loosestrife, Eurasian Water-Milfoil, and Zebra Mussels thru 2008 and then alternately after 2008. The next required monitoring will be performed in 2014.

II. Identification of Invasive Species

A. Purple Loosestrife

Purple loosestrife (*Lythrum salicaria*) is perennial plant in the loosestrife family, with a square, woody stem, opposite or whorled leaves, and grows to heights of 3-9 feet. It has a bright vibrant purple bloom that makes it easily seen and identified in late summer. Purple loosestrife easily adapts to natural and as well as disturbed wetlands and tolerates changes in soil moisture and temperature. It is found in wet or moist areas such as riverbanks, streams, and marshes. Purple Loosestrife is highly invasive and forms dense stands as it establishes itself and expands. It competes and eventually replaces native grasses, sedges, and other flowering plants that provide a higher quality source of nutrition and habitat for wildlife. The seeds can easily be transported by flood waters and invade areas downstream.

B. Eurasian Water-Milfoil

Eurasian Water-Milfoil (*Myriophyllum spicatum*) is a highly invasive aquatic plant that out-competes and replaces native aquatic plants, including native water-milfoils such as Northern Water-Milfoil (*Myriophyllum sibericum*), one of seven (7) found in Wisconsin. It forms dense mats of vegetation near the surface which impede swimming, entangle themselves on boat propellers, and by eventually replacing other native species threaten the integrity of otherwise diverse aquatic communities. It has long spaghetti like stems, limp, feather-like leaves arranged whorls (3-5), and 12-21 leaflet pairs per leaf. The plant was accidently introduced to North America from Europe and is not found in the majority of inland lakes in Wisconsin. It reproduces by producing shoot fragments and runners rather than by seeds. However, the fragments and runners can be spread and infest other areas by water currents, transported by watercraft, and by residual plant material left attached to boat trailers.

C. Zebra Mussels

The Zebra Mussel (*Dreissena polymorpha*) is small and non-native to the North America. It was originally found in Russia. The Zebra Mussel was found to have been transported to North America in 1988 in the ballast water of a transatlantic freighter. Since 1988 and up to the present, Zebra Mussels have spread from Lake St. Clair to all five of the Great Lakes, and into the Mississippi, Tennessee, Hudson, Colorado, St. Lawrence, Cumberland, Missouri, Arkansas, Red, and Ohio River Basins. Zebra Mussels are relatively small, usually about the size of a fingernail. However, adults can range in size from 0.25 to nearly 2 inches in length with a d-shaped shell. They get their name from a striped pattern commonly seen on their shells. However, not all contain the striped pattern and may need closer examination to identify. Many of Wisconsin's inland waters are now infested with Zebra Mussels. It is a prolific invasive that deprives native fish and other aquatic life of food and habitat as well as being a very costly to boaters, the shipping industry, and the maintenance of water intake and water supply structures.

III. Survey Results

The Middle Appleton Dam Project, FERC # 7264 was surveyed on August 14, 2012 for Purple Loosestrife and Eurasian Water – Milfoil. River conditions were well below normal levels. Weather conditions were sunny and warm with wind less than 10 mph. The water clarity was "poor" (approximately one foot) due to algae bloom.

All lands within the project boundaries were assessable during the survey. The majority of the survey was conducted by Kayak, with some shoreline portions of the survey conducted on foot.

The length of the survey was approximately 4 hours. To enhance identification, and documentation, a digital camera, laser rangefinder, and high quality binoculars were used during the monitoring survey. The order of the survey from beginning to end was as follows:

1. NAH Power Plant
2. The shores and up stream to the train trestle and then to the southern most project boundary at the upper dam
3. Traveling north on east shoreline between the old Oneida Bridge and northern most project boundary
4. Traveling south on west shoreline to the old Oneida Bridge
5. Power Canal.

Purple Loosestrife

No Purple Loosestrife was observed during the monitoring.

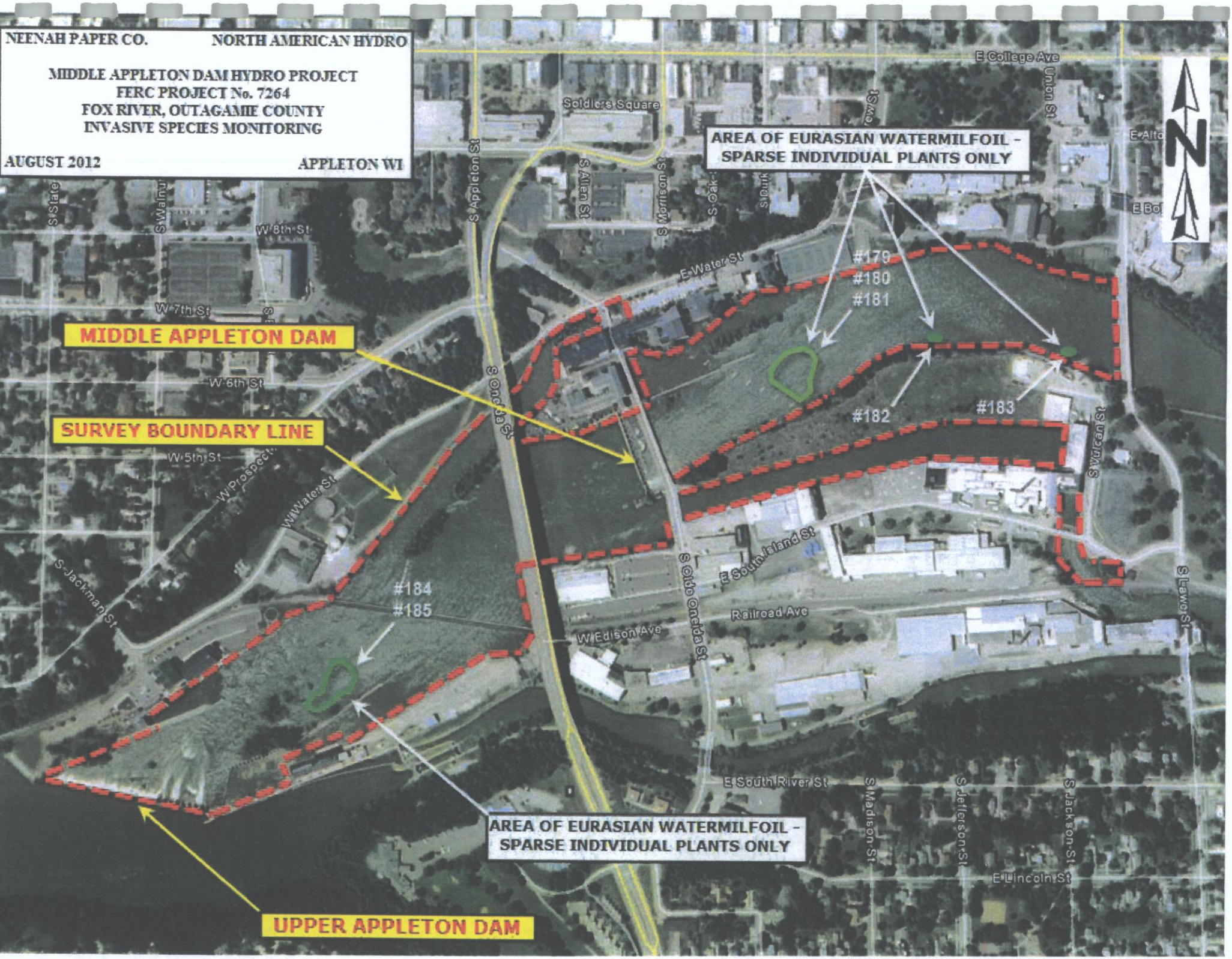
Eurasian Water Milfoil (EWM)

The heavily developed shore has left little habitat for vegetation to establish itself and grow. Individual Eurasian Water Milfoil (EWM) plants were observed at waypoints 179,180, 181,182,183,184, and 185. These locations are highlighted on the survey boundary map included with this report. No mats of EWM were observed (only individual plants). It is noteworthy to report that EWM was observed growing only in depths less than 1.5 feet where flow velocities were very low. Floating fragments of EWM were observed in both the upper impoundment and the reaches below the dam. No plants were observed in locations where it was observed during previous surveys.

Zebra Mussels

No Zebra Mussels were observed during the survey. Additionally, operating personnel reports that no Zebra Mussels have been observed in 2012. The water quality may have contributed to not seeing mussels during the survey. If at any time they are discovered, the Wisconsin Department of Natural Resources will be contacted and monitoring for Zebra Mussels will be discontinued.

Figure 1. - Invasive Species Survey Map



Appendix A – Agency Consultation

- September 24, 2012 email from NAH to agencies Draft report submittal and request for comment
- September 24,2012 email response "no comment" from Nick Utrup- FWS
- October 24, 2012 email response from Cheryl Laatsch WDNR including comments

Jereme Klassy

From: Jereme Klassy
Sent: Monday, September 24, 2012 10:33 AM
To: Nick_Utrup@fws.gov; 'Laatsch, Cheryl - DNR'; 'michael.donofrio@wisconsin.gov'
Subject: 2012 Invasive Species (Draft) Report For Middle Appleton Dam
Attachments: appleon 2012 invasive.pdf; image001.png

All

Please find the attached copy of the 2012 (Middle Appleton Dam) invasive Species Monitoring Report in Draft Form. The project was surveyed on August 14, 2012 for Purple loosestrife, Eurasian Water Milfoil and the results of the survey are contained in the draft report. I am requesting your response comments by November 1, 2012 so they can be included in the final report. Thanks for your attention to this matter. If you have any questions regarding this matter please feel free to email me. I look forward to your comments.

Jereme Klassy
Regulatory/Compliance

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Jereme Klassy

From: Nick_Utrup@fws.gov
Sent: Monday, September 24, 2012 11:54 AM
To: Jereme Klassy
Cc: Laatsch, Cheryl - DNR; michael.donofrio@wisconsin.gov
Subject: Re: 2012 Invasive Species (Draft) Report For Middle Appleton Dam
Attachments: image001.png; appleon 2012 invasive.pdf

Thanks Jereme. I will not be providing any comments

Nick

Nicholas J. Utrup
U.S. Fish and Wildlife Service
Wisconsin Ecological Services Office
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New Franken, WI 54229

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Email: Nick_Utrup@fws.gov

"Jereme Klassy" <jklassy@nahydro.com>

"Jereme Klassy" <jklassy@nahydro.com>	To<Nick_Utrup@fws.gov>, "Laatsch, Cheryl - DNR" <Cheryl.Laatsch@Wisconsin.gov>, <michael.donofrio@wisconsin.gov>
09/24/2012 10:32 AM	cc
	Subject2012 Invasive Species (Draft) Report For Middle Appleton Dam

All

Please find the attached copy of the 2012 (Middle Appleton Dam) invasive Species Monitoring Report in Draft Form. The project was surveyed on August 14, 2012 for Purple loosestrife, Eurasian Water Milfoil and the results of the survey are contained in the draft report. I am requesting your response comments by November 1, 2012 so they can be included in the final report. Thanks for your attention to this matter. If you have any questions regarding this matter please feel free to email me. I look forward to your comments.

Jereme Klassy
Regulatory/Compliance
NORTH AMERICAN HYDRO

9/24/2012

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(See attached file: image001.png)(See attached file: appleon 2012 invasive.pdf)

Jereme Klassy

From: Laatsch, Cheryl - DNR [Cheryl.Laatsch@Wisconsin.gov]
Sent: Wednesday, October 24, 2012 10:05 AM
To: Jereme Klassy
Cc: Hudak, Andrew J - DNR
Subject: WDNR comments on Middle Appleton Dam P-7264, 2012 AIS reporting

Thank you for the Invasives Report for 2012. We have the following comments,

1. Wisconsin is a mosaic of waterways representing the Mississippi River and the Great Lakes Regions. With this vast mosaic of waterways and river systems, comes an array of aquatic invasive species. As we move forward with identifying and eradicating AIS, there are basic steps that all hydro owners need to participate in, to help improve the resource. Some AIS can significantly hinder hydro operations that may result in excessive operation and maintenance costs, including lost generation. We encourage the utility to work with the WDNR to develop Best Management Practices for their operations and maintenance of the hydro, to reduce the introduction and spread of AIS. Additionally, the WDNR recommends revisions to the current AIS plan to address the following concerns:

    a. Identify all existing AIS within the study area and discuss which new AIS are most likely to arrive (i.e. SMART analysis).
    b. Determine an acceptable survey and mapping methodology
    c. Identify and implement quality control measures, and equipment calibration measures
    d. Improve awareness and the dynamics of the study area
    e. Avoid duplicate workload for agency staff, utilities, and local associations
    f. Manage and analyze the data collected to define population characteristics, establish trends, and evaluate management success.
    g. Establish and implement protocols for management/removal of AIS
    h. Provide a timeline to review the current AIS plans and revise the plans as appropriate for the project area

2. If purple loosestrife (*Lythrum salicaria*) is present, control or eliminate all small populations of loosestrife (usually 50 plants or less), with acceptable manual/chemical/mechanical methods annually, as necessary, and establish viable, on-going, and effective populations of biocontrol beetles (*Galerucella pusilla* and/or *G. calmariensis*) on all larger loosestrife populations.

Specific Comments: Zebra mussels are present both upstream and downstream of the impoundment. WDNR water resources staff have indicated that zebra mussel monitoring may be discontinued. The WDNR reserves the rights to require monitoring for zebra mussels in the future, as appropriate.

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