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Designing the future

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November 16, 2007

 ORIGINAL

2007 NOV 30 P 2: 22

REGULATORY DIVISION

Ms. Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
ATTN: OEP/DHAC
888 First Street, NE
Washington, DC 20426

Subject: Article 405, *Order Issuing Subsequent License –
Minor Project* Issued August 31, 2005
Middle Appleton Dam Hydroelectric Project
FERC Project No. 7264 --022
Lower Fox River, Outagamie County, Wisconsin

Dear Ms. Bose:

On behalf of the Fox River Paper Company and N.E.W. Hydro, Inc., we are hereby filing one original and eight copies of the *Invasive Species Monitoring Report* for the Middle Appleton Dam Hydroelectric Project. The plan is being submitted in accordance with Article 405 of the above-mentioned subsequent license.

Copies have been sent to those entities that were consulted on matters related to this filing. Proof of service is also included.

Thank you for your time and consideration in this matter. If you have any questions, please contact me.

Respectfully submitted,

MEAD & HUNT, Inc.



Arie DeWaal
Senior Project Manager

Enclosures

cc: See attached list

Mead & Hunt Inc 6501 Watts Road Madison Wisconsin 53719-2700

608 273 6380 fax: 608 273 6391 www.meadhunt.com

Certificate of Service

I hereby certify that I, on behalf of the Fox River Paper Company and N.E.W. Hydro, Inc., have this day served the foregoing documents upon each person designated on the attached distribution list.

Dated this 16th day of November, 2007.



Arie DeWaal
MEAD & HUNT, Inc.

Distribution List

Middle Appleton Dam Hydroelectric Licensing

FERC Project No. 7264

Article 405

Ms. Kimberly D. Bose, Secretary

Office of the Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

Ms. Peggy Harding

Regional Engineer
Federal Energy Regulatory Commission
Chicago Regional Office
Federal Building
230 South Dearborn Street, Room 3130
Chicago, IL 60604

Ms. Louise Clemency

Field Supervisor
U.S. Department of the Interior
Fish & Wildlife Service
Green Bay Field Office
2661 Scott Tower Drive
New Franken, WI 54229-9565

Mr. Michael Donofrio

Statewide Rivers and FERC Coordinator
State of Wisconsin
Department of Natural Resources
101 North Ogden Road
PO Box 208
Peshtigo, WI 54157

Mr. John Rom, Manager

Engineering and Maintenance
Neenah Paper, Inc. – Appleton Mill
430 East South Island Street
P.O. Box 2215
Appleton, WI 54913-2215

Mr. Chuck Alsberg

N.E.W. Hydro, Inc.
116 State Street
P.O. Box 167
Neshkoro, WI 54960

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2007 NOV 30 P 2:22

U.S. DEPARTMENT OF ENERGY

Invasive Species Monitoring Report

**Middle Appleton Dam
Hydroelectric Project
FERC Project No. 7264**

**Lower Fox River
Outagamie County, Wisconsin**

Report prepared for

FOX RIVER PAPER

and

N.E.W. Hydro, Inc.

Report prepared by

**MEAD
& HUNT**

November 2007

Table of Contents

	Page
1. Project Area Description	1
2. Identification of Invasive Species	3
A. Purple loosestrife	3
B. Eurasian water-milfoil	3
C. Zebra mussels	3
3. Survey Results	4
4. Agency Consultation	5

Figure 1 – Survey Area Invasive Species Monitoring 2

Appendix – Agency Consultation



Section 1
Project Area Description

1. Project Area Description

The Middle Appleton Dam Hydroelectric Project (FERC Project No. 7264) is located on the Lower Fox River in the city of Appleton in east-central Wisconsin. Approximately 31 miles downstream from the project, the Lower Fox River empties into the south end of Green Bay, a large bay located along the northwest portion of Lake Michigan.

The Middle Appleton Dam Project lies within the corporate limits of the city of Appleton in south-central Outagamie County. The project's 35.5-acre impoundment extends upstream to the south-southwest for approximately .5 miles, where the next dam is located. The dam is located between Appleton Lock Nos. 2 and 3. A project area map is included in Figure 1.

The project's dam is one of 13 dams on the Lower Fox River. Five dams are located upstream from the project and seven are located downstream. The next dam downstream lies about .75 miles away. Associated with these dams are 18 lock structures.

The project is located within a highly urbanized area with the land near the project being predominantly industrial along this stretch of the Lower Fox River. The project is actually located in the heavily industrialized area known as the "flats." Vegetation in the project area is sparse and confined to some of the shoreline areas.

This study was performed in compliance with License Article 405, which dictates annual monitoring for purple loosestrife, Eurasian water-milfoil, and zebra mussels through 2008 and alternate years afterwards. No occurrences of invasive species within the project area have been noted in the past.

LARGE-FORMAT IMAGES

One or more large-format images (over 8½" X 11") go here. These images are available in E-Library at:

For Large-Format(s):

Accession No.: 20071206-0221

Security/Availability:

- PUBLIC
- NIP
- CEII
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File Date: 11/30/07 Docket No.: P7264-022

Parent Accession No.: 20071206-0220

Set No.: 1 of 1

Number of page(s) in set: 1

Section 2
Identification of Invasive Species

2. Identification of Invasive Species

A. Purple loosestrife

Purple loosestrife (*Lythrum salicaria*) is a perennial wetland plant found in wet and moist habitats such as marshes, streams, and riverbanks. Its vivid purple bloom makes it readily seen in late summer. It tolerates changes in soil moisture and temperature, and once established, tends to predominate over other plant life. As a result, its presence can significantly reduce diversity of native vegetation and associated wetland species. This plant usually invades wetlands by germinating in riparian mud flats or wet soil areas and can persist in seed banks for many years after invasion. The seeds can be easily transported on flood waters and invade downstream areas.

B. Eurasian water-milfoil

Eurasian water-milfoil (*Myriophyllum spicatum*) is an invasive plant that tends to out-compete native aquatic plants, including native water-milfoils. Accidentally introduced to North America from Europe, it is now found in the majority of inland lakes in Wisconsin. Unlike many other plants, Eurasian water-milfoil reproduces vegetatively by producing shoot fragments and runners, rather than relying on seed for reproduction. Plant fragments and runners, which may remain viable for weeks if kept moist, can be carried downstream by water currents or inadvertently picked up and transported by boaters.

Eurasian water-milfoil can be difficult to differentiate from native water-milfoil species, as both have slender stems with feathery leaves. However, a Eurasian water-milfoil typically has 12 to 21 pairs of leaflets, while the native northern water-milfoil usually has five to nine pairs. Another identifying characteristic of the Eurasian variety is its tendency to form dense mats of vegetation that crowd out other species. These dense stands threaten the integrity of diverse aquatic communities.

C. Zebra mussels

The zebra mussel (*Dreissena polymorpha*) is a small, non-native mussel originally found in Russia. In 1988, this animal was transported to North America in the ballast water of a transatlantic freighter and colonized parts of Lake St. Clair. In less than 10 years, zebra mussels have spread to all five Great Lakes and into the Mississippi, Tennessee, Hudson, and Ohio River Basins. Many inland waters in Wisconsin are now infested with zebra mussels. Zebra mussels are very successful invaders because they live and feed in many different aquatic habitats, breed prolifically (each female produces 1 million eggs per year), and have both a planktonic larval stage and an attached adult stage. Young zebra mussels are planktonic. They can seriously impair the diversity of benthic aquatic habitats and also impose high maintenance costs on intake and water supply structures.

Section 3
Survey Results

3. Survey Results

The Middle Appleton Dam Project was inspected for purple loosestrife and Eurasian water-milfoil on July 24, 2006. Small shoreline portions of the flowage around West's Canal and the backwater area around Vulcan Street were examined by pedestrian survey from the shore. Then, a canoe was used to survey the waters and shore both above and below the Middle Appleton Dam. The industrialized nature of the shore has left very little habitat for terrestrial wetland vegetation to take root. No occurrences of purple loosestrife were observed.

The waters above and below the Middle Appleton Dam appeared to be at lower levels with slower currents than were present during last year's survey. This rare occurrence can be attributed to the near drought conditions experienced in the area during the spring and summer of 2007. Downstream from the Middle Appleton Dam, several individual Eurasian water-milfoil plants were found scattered along the shallow waters near the shoreline. One dense cluster was found in the middle of the main river channel below the dam. Approximate locations of the individual plants and the large cluster of plants are marked on the map of the survey areas (Figure 1). No other aquatic plants were found and no occurrences of Eurasian water-milfoil were noted in project waters above the Middle Appleton Dam.

Fox River Paper Company personnel have been monitoring for zebra mussels as outlined in the Project's *Invasive Species Monitoring Plan*. To date, there have been no observed occurrences of zebra mussels associated with project structures. If zebra mussels are observed in the future, zebra mussel monitoring at the project will be discontinued and the Wisconsin Department of Natural Resources will be contacted.

Section 4
Agency Consultation

4. Agency Consultation

The attached Appendix presents correspondence related to agency review. As of the date of this filing, no review comments have been received.

Appendix
Agency Consultation

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October 1, 2007

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

Mr. Bob Martini
Statewide Rivers and FERC Coordinator
State of Wisconsin
Department of Natural Resources
107 Sutcliffe Avenue
Rhineland, WI 54501

Subject: Article 405, *Order Issuing Subsequent License – Minor Project*, Issued August 31, 2005
Middle Appleton Dam Hydroelectric Project
FERC Project No. 7264
Lower Fox River, Outagamie County, Wisconsin

In accordance with Article 405 of the *Subsequent License – Minor Project* for the Middle Appleton Dam Hydroelectric Project, we are hereby submitting a "draft" copy of the *Invasive Species Monitoring Report*. We would appreciate receiving your comments on this report within 30 days.

Thank you very much for your time and cooperation in this matter. If you have any questions, please contact me.

Sincerely,

MEAD & HUNT, Inc.



Arie DeWaal
Senior Project Manager

Enclosure

cc: Mr. John Rom, Neenah Paper FR, LLC
Mr. Chuck Alsberg, N.E.W. Hydro, Inc.