

UNITED STATES OF AMERICA 116 FERC ¶62,166
FEDERAL ENERGY REGULATORY COMMISSION

Wolf River Hydro Limited Partnership

Project No. 710-038

ORDER AMENDING LICENSE

(Issued August 28, 2006)

On April 27, 2006, Wolf River Hydro Limited Partnership (licensee) filed a request to amend the project license for the Shawano Project, located on the Wolf River in Shawano County, Wisconsin, and in part within the Menominee Indian Reservation. The licensee states that the amendment application is the result of a collaborative effort to resolve pending court appeals regarding the new license, issued on May 16, 1997.¹

The licensee's April 27 filing included a Settlement Agreement (SA) between the licensee, the Menominee Indian Tribe of Wisconsin (Tribe) and the U.S. Department of the Interior (Interior), acting through the Bureau of Indian Affairs (BIA) and the U.S. Fish and Wildlife Service (FWS).² In addition, the licensee states that the Wisconsin Department of Natural Resources (WDNR) concurs with the proposals. The licensee requests amendment of the license as described below and an extension of the project license term to 2037. The current license expires in 2027.

An Environmental Assessment (EA) was prepared regarding the amendment application and is attached to this order. In this order, I amend the license in accordance with the application because I find that the licensee's proposed measures are beneficial, will have no significant adverse impact on the human environment, and is in the public interest.

¹ 79 FERC ¶ 61,181 (1997). See also Order on Rehearing and Complaint, Approving Revised Exhibit G, and Setting Matter for Hearing, issued on March 15, 2001 (94 FERC ¶ 61,294).

² From this point forward, referring to the SA includes its amended language contained in Appendix C of the licensee's application.

BACKGROUND

The project license was issued on May 16, 1997. The Tribe and Interior filed requests for rehearing on June 16, 1997. The Tribe and Interior argued that the Commission erred in issuing a new license that did not incorporate Interior's conditions filed on May 13, 1997, pursuant to Section 4(e) of the Federal Power Act (FPA).³

On March 15, 2001, the Commission issued an order that considered Interior's conditions as recommendations under Section 10(a) of the FPA.⁴ These recommendations included: (1) project operation; (2) gaging; (3) funding of trap and transport operations for lake sturgeon; (4) upstream and downstream fish passage; (5) installation of ice booms to minimize flooding; (6) mussel restoration; and (7) habitat studies in the project reservoir. The Commission amended article 401 (which required the development of a plan for the control of frazil ice); added the Tribe as an entity to be consulted with in the development of the various plans and type of operation required by articles 402, 403, 405, 409, and 410; added article 414 which required a plan for the licensee's participation in the May 1995 Menominee Reservation-Lake Sturgeon Management Plan; and denied rehearing in all other respects, with the exception of annual charges.⁵

The Tribe and Interior sought review of the Commission's March 2001 rehearing order in the United States Court of Appeals for the District of Columbia Circuit.⁶ The case remains pending. The licensee states that amending the license, as proposed, would effectively render the appeal moot.

AMENDMENT REQUEST

In the application, the licensee proposes five new license articles (articles 415-

³ They also argued that the Commission had failed to set a reasonable annual charge for the project's use of reservation lands pursuant to 10(e) of the FPA. Subsequently, such charges were established. See 94 FERC ¶ 62,134 (2001), 96 FERC ¶ 62,216 (2001), and 97 FERC ¶ 61,054 (2001).

⁴ 94 FERC ¶ 61,294.

⁵ See Note 3, *supra*.

⁶ See Petition for Review, *Menominee Indian Tribe of Wisconsin v. FERC*, No. 01-1205 (D.C. Cir. May 11, 2001); Petition for Review, *United States Department of the Interior v. FERC*, No. 01-1210 (D.C. Cir. May 14, 2001); Order *Menominee Indian Tribe of Wisconsin v. FERC*, No. 01-1205, consolidated with No. 01-1210 (D.C. Cir. May 15, 2001).

419) and modifications to five existing articles (articles 401, 403, 408, 409, and 414). In addition, the licensee requests to extend the project license term to 2037. These requests are detailed below.

A. Establishment of Shawano Resource Enhancement Fund (article 415)

First, the licensee proposes the establishment of a Shawano Resource Enhancement Fund. The licensee states that although the article requires payments into a fund, it also requires specific project-related mitigation measures also required by the license. The Commission would retain jurisdiction over the licensee's performance of the agreed upon mitigation. Further, annual consultation and reporting is proposed to assure all parties that the funds were expended for the specific measures intended. The licensee proposes the new article, article 415, would state:

Article 415. The licensee, together, with the Menominee Indian Tribe of Wisconsin, shall establish the Shawano Resource Enhancement Fund no later than 60 days after the date of this order. The Fund shall be established for the mitigation measures set forth in articles 401, 409, and 414, and new articles 416, 417, 418, and 419 as set forth in this order. If any of the payments required are not paid within 30 days of the due date specified in each article, interest shall accrue at the rate of 6% per annum, owing on the unpaid amount from the specified due date until paid. All interest accrued in the Fund shall be applied in fulfillment of these articles on a pro rata basis after adjustment for the payment of any fees and/or taxes assessed upon the fund.

By March 1 of each year, the licensee shall file with the Commission an Annual Accounting Report that describes the activities that have been funded by the Shawano Resource Enhancement Fund in the previous year and anticipated activities and associated costs for the coming year. The report shall include proof of consultation with and any comments from the Tribe, the FWS, the BIA, and the WDNR. The licensee shall allow the Tribe and the agencies a minimum of thirty days to comment and to make recommendations before the report is filed with the Commission. If the licensee does not adopt a recommendation, the report shall include the licensee's reasons, based on project-specific information. The report shall also include any letters of comment from the Tribe and the agencies.

B. Control of Frazil Ice (article 401)

Currently, article 401 requires the licensee to consult with the FWS, WDNR, Tribe and the U.S. Army Corps of Engineers and develop and file, for Commission approval, a plan to control frazil ice at the project. The plan shall evaluate the feasibility of alternatives to alleviate the frazil ice-related flooding at the project, including the installation of ice-booms, or other changes to project facilities and/or operations. Rather than file this plan, the licensee now proposes installation of ice booms at the project.

Specifically, the licensee proposes that article 401 be amended as follows:

Article 401. The licensee shall be responsible for the construction and installation of steel frazil ice booms to alleviate frazil ice flooding at the Shawano Project, as follows: No later than September 1, 2006 and September 1, 2007 the licensee shall deposit \$5,000 each year into the Shawano Resource Enhancement Fund, established pursuant to article 415 of this license, to be used for the purpose of construction and installing frazil ice booms. No later than September 1, 2008, the licensee shall contribute an additional \$7,000 to the Shawano Resource Enhancement Fund for the same purpose. In the event the initial cost or replacement cost of frazil ice booms exceeds \$55,000 in the aggregate, the licensee shall contribute, in addition to the \$17,000 identified above, 50 percent of the cost above \$55,000, but not to exceed an additional \$8,000. The licensee shall submit a plan and design to the Commission for approval prior to construction and installation. The Commission reserves the right to require changes to the plan. Upon Commission approval, the licensee shall commence construction and installation, including any changes required by the Commission, on or before June 1, 2010.

The licensee shall consult with the Tribe and the BIA annually to discuss the status of construction efforts, operation and maintenance concerns, and any other relevant issues. The Annual Accounting Report required by article 415 shall describe efforts to fulfill this license obligation during the previous year and anticipated efforts and costs for the coming year.

The licensee states that the licensee's monetary contribution to the construction of ice booms would not exceed \$25,000. Once constructed and installed, the Tribe would be responsible for annual removal, installation, storage, repair, and maintenance of the ice booms.

C. Fisheries Enhancement (article 408)

Article 408 originally required the licensee to consult with the FWS, WDNR, and the Tribe and develop a fishery enhancement plan for the project which shall have an annual cost not to exceed \$4,100 (in 1993 dollars), through the term of the license. The licensee filed the plan on August 5, 1999. The plan was modified and approved by the Commission on November 30, 1999.⁷ Subsequently, the licensee filed proposed modifications to the plan on February 29, 2000, which were approved by the Commission by order issued May 15, 2000.⁸

⁷ See 89 FERC ¶ 62,167 (1999).

⁸ See 91 FERC ¶ 62,109 (2000).

The approved plan requires the improvement/enhancement of six sites in the project impoundment. Improvements include rip rap of the shoreline, use of half-logs in some areas, use of anchored tree drops, and enhancement of marsh areas with vegetation. The approved plan also requires the filing of annual reports on the status of the enhancement work. The licensee proposes the following new language to replace the existing article 408:

Article 408. The licensee shall implement the terms of the fishery enhancement plan approved and modified by Commission orders dated November 30, 1999 and May 15, 2000. The purpose of this plan is to enhance the aquatic habitat and the fishery in the project impoundment. From the year of issuance of this order through and including 2006, the licensee shall contribute \$5,200 (in 2003 dollars) annually, due no later than December 31 of each year, into the bank account existing at Fifth Third Bank in Petoskey, Michigan. No later than December 31, 2007, the licensee shall contribute an additional \$2,500 to said bank as a 2007 payment to the above-mentioned bank account, after which the licensee's funding obligation will cease. Annual contributions shall be indexed according to the Consumer Price Index and are to be used for the sole purpose of funding the approved fishery enhancement plan. Funds will be subject to disbursement following consultation with the Tribe and based on mutual agreement. The licensee shall provide the Tribe monthly bank statements reflecting activity in the account. The licensee's obligations to implement the substantive terms of the fishery enhancement plan will continue until all required mitigation set forth therein is completed.

The licensee shall file with the Commission an annual report on the status and schedule of the enhancement work and the results of any studies on the effectiveness of the enhancement measures. This report shall be filed no later than March 1 of each year for the previous year's activities and until enhancement of all sites identified in the approved fishery enhancement plan is completed. The licensee shall provide the reports to the FWS, the WDNR, and the Tribe, allowing 30 days for comments, before filing the reports with the Commission. The reports shall include any letters of comment from these entities.

The licensee states that to date, the following enhancement measures have been completed at three of the five sites: (1) Site 3-installation of half logs in the stream near the edge of the channel to improve in-stream cover; (2) Site 4-installation of rip-rap along eroding shoreline and boulder placement along the bank; and (3) Site 5-installation of rip-rap along eroding shoreline and boulder placement along the bank. The licensee states that Sites 1 and 2, which are shoreline rock placement projects, have not been completed. Before these sites can be completed, road access must be developed. The licensee believes that the current fund, together with the proposed contributions through 2007 would provide sufficient funds to complete the work.

D. Purple Loosestrife Removal (article 409)

Article 409 of the license required the licensee to consult with the Tribe, the FWS, and the WDNR and develop a plan to monitor, at least annually, purple loosestrife in projects waters. The plan was to include: (1) a description of the monitoring method; (2) a monitoring schedule; (3) a schedule for providing the monitoring results to the WDNR, FWS, and the Tribe. The licensee filed its plan on November 13, 1997. The Commission approved the plan on May 3, 1999.⁹

In part, the approved plan requires the licensee survey for purple loosestrife between July 15 and September 1 of each year, documenting the dominant and spot occurrences on maps. Further, the licensee is required to submit annual reports to the WDNR and the FWS by December 31 of each year, and file them with the Commission (with any agency comments) by February 1 of the following year. Replacing the existing language of article 409, the licensee proposes the following:

Article 409. The licensee shall monitor and survey purple loosestrife on an annual basis and in accordance with the approved Purple Loosestrife Monitoring Plan, 87 FERC ¶ 62,123 (1999), until the end of 2005, after which the licensee's responsibility to monitor purple loosestrife shall cease. The final monitoring report shall be filed with the Commission no later than December 31, 2006. Commencing December 31, 2007, and through and including December 31, 2016, the licensee shall contribute \$1,500 per year to the Shawano Resource Enhancement Fund established pursuant to article 415 of this license. These funds shall be expended by the licensee, at the direction of the Tribe, for the purpose of eradicating purple loosestrife within the project boundary as approved by the Commission, 94 FERC ¶ 61,294 (2001).

The licensee shall consult with the Tribe, the FWS, the BIA, and the WDNR on an annual basis through and including the year 2016 to discuss appropriate purple loosestrife eradication efforts. Eradication efforts should be in compliance with the approved Purple Loosestrife Monitoring Plan. The Annual Accounting Report required by article 415 of this license shall describe eradication efforts during the pervious year and anticipated efforts for the coming year.

Given its limited resources, the licensee proposes that future efforts be focused on eradication of purple loosestrife rather than continued monitoring. The licensee speculates that beetles used for control of purple loosestrife may be self-supporting by 2016 or that full eradication may occur by then.

⁹ 87 FERC ¶ 62,123 (1999).

E. Downstream Flow Gaging Station (article 403)

Article 403 of the license required the licensee to consult with the FWS, the Tribe, the WDNR, and the U.S. Geological Survey (USGS) and develop a plan to monitor compliance with the run-of-river mode of operation and downstream water level fluctuation limits during debris sluicing as stipulated in articles 402 and 404, respectively. The monitoring plan was to include provisions for using the existing downstream USGS gage (USGS Gage No. 04077400), as well as using other equipment to monitor headpond elevations. This plan was filed with the Commission on November 13, 1997, and was approved by the Commission on April 27, 1999.¹⁰

The licensee now proposes that the following paragraph be added to the existing language of article 403:

No later than 30 days after the issuance date of this order, the licensee shall place in operation a website providing data from the existing downstream flow gaging station. Data from the flow gaging station shall be recorded in hourly increments, and the website updated twice daily at approximately 8:00 a.m. and 6:00 p.m. CST. The licensee shall be responsible for the continued operation and maintenance of the website for the life of the license, and shall provide sufficient upgrades as necessary to accommodate changes in technology, as determined in consultation with the Tribe. The licensee shall be responsible for one-half of the monthly cost to operate and maintain the website, with the Tribe responsible for the remaining half of the monthly cost to operate and maintain the website. The licensee shall make website data available to the Tribe, the WDNR, the BIA, the FWS, the USGS, and the Commission.

The licensee states that in the interest of settlement, the licensee and Tribe have agreed to jointly fund a private website that will display data from the existing downstream flow gaging station. This would allow independent verification of compliance by the Tribe and resource agencies. The licensee states that joint funding with the Tribe allows for consideration of the economic realities of the project and the interests of the consulting parties, while contributing to the dismissal of a long-pending court appeal.

F. Upstream Gaging Station (article 416)

Prior to the Commission's approval of the gaging plan, the agencies had recommended the establishment of a gage at the head of the project reservoir.¹¹ In the

¹⁰ 87 FERC ¶ 62,110 (1999).

¹¹ This recommendation was made in Interior's recommendations filed on May 13, 1997, and again in comments on the licensee's gaging plan, filed on November 13, 1997.

order approving the gaging plan, Commission staff determined that an upstream gage was not needed. The licensee proposes that a new license article pertaining to an upstream gaging station be added to the license:

Article 416. Not later than December 31, 2006, the licensee shall make a one-time payment to the Shawano Resource Enhancement Fund established in Article 415 of this license, to be used towards the installation of an upstream USGS gaging station. The amount of the payment shall be \$3,250 in the event costs for installing the upstream gaging station are \$10,000 or higher. The amount of the payment shall be 25 percent of the costs for installing the upstream gaging station if such costs are less than \$10,000. In addition, beginning on September 1, 2006, the licensee shall pay \$1,200 annually (without adjustment for inflation) to be used exclusively for annual maintenance costs for the upstream gaging station. This \$1,200 annual payment shall be deposited into the Shawano Resource Enhancement Fund and is required for the remainder of the license term. The gaging station shall be located within the Project boundary.

The licensee states that installation of an upstream USGS gage would allow for: (1) independent verifications of inflows to the project; (2) verification of licensee data on project operation; (3) backup flow and river stage data when the licensee's equipment is inoperable; (4) additional data during high flow events; (5) data to be used by the Tribe for flood forecasting on the Reservation, particularly when ice jam/flooding problems occur at Keshena Falls; (6) independent verification of river stage if it is suspected that operations are adversely affecting archaeological/cultural resources on the Reservation; and (7) quick access by the Tribe and resource agencies to flow data in order to respond to public complaints. As above, the licensee states that joint funding with the Tribe allows for consideration of the economic realities of the project and the interests of the consulting parties, while contributing to the dismissal of a long-pending court appeal.

G. Trap and Transport of Lake Sturgeon (article 414)

The existing article 414 requires the licensee to consult with the FWS, WDNR, and Tribe and develop and file, for Commission approval, a plan for its participation in the May 1995 Menominee Reservation-Lake Sturgeon Management Plan. The licensee proposes article 414 be amended as follows:

Article 414. The licensee shall participate in the May 1995 Menominee Reservation-Lake Sturgeon Management Plan ("Plan") as follows: The licensee shall consult with the Tribe, the FWS, the BIA, and the WDNR on an annual basis to discuss ongoing trap and transport operations and to assess the continuing need for such

The WDNR also recommended the establishment of an upstream gage in comments on the plan dated October 2, 1997.

operations, and shall include a report on such consultations in the Annual Accounting Report required in article 415 of this license. Commencing September 1, 2006, the licensee shall contribute \$1,500 annually to the Shawano Resource Enhancement Fund established in article 415 of this license, to be used for the purpose of trap and transport of lake sturgeon in accordance with the Plan. This annual payment is due no later than June 30 of each year and shall continue until an upstream fish passage facility is installed and operational, or until the Commission determines following consultation as set forth above, that trap and transport is no longer necessary, at which time the licensee's annual \$1,500 contribution for trap and transport of lake sturgeon shall cease.

The licensee's application included a 2004/2005 Menominee Lake Sturgeon Management Activities on Wolf River, Balsam Row Dam to Shawano Paper Mill Dam Tracking Results (Appendix D) which indicated that lake sturgeon released upstream in reservation waters have migrated downstream of the project dam. These fish remain there and are using the river between the Shawano Project and the Paper Mill Project (FERC No. 8015),¹² located 5.3 miles downstream. The licensee speculates that these sturgeon may swim to the base of the project dam looking for upstream passage. Monies proposed in this article would be provided to the Tribe to cover the costs incurred for trap and transport operation.

H. Installation of Upstream Fish Passage (article 417)

The licensee states that the parties have agreed that installation of an upstream fish passage facility is the most appropriate means of addressing the project's blockage of upstream passage of lake sturgeon. A prototype facility (a spiral side-baffle fish ladder) has been developed that will pass sturgeon.¹³ The licensee states that existing information documents that riverine species, including lake sturgeon, are known to travel long distances upstream and downstream on spawning runs. The licensee proposes the following new article:

Article 417. The licensee shall be responsible for the installation of an upstream fish passage facility, as follows: The licensee shall contribute \$5,000 per year

¹² The Paper Mill Project is a 360-kW exemption operated by the Little Rapids Corporation. This exempted project is an absolute barrier to the upstream migration of lake sturgeon, and the exemptee has no plans for, nor has any agency reserved authority to require, the installation of fish passage facilities.

¹³Included as Appendix E of the application was a Progress Report to the Great Lakes Fishery Trust on the Development of Fish Passage for Lake Sturgeon, dated May 2002, by B. Kynard, D. Pugh, and T. Parker, S.O. Conte Anadromous Fish Research Center, Turners Falls, MA.

commencing January 1, 2008, through and including January 1, 2012, and \$10,000 per year commencing January 1, 2013, through and including January 1, 2016, to the Shawano Resource Enhancement Fund established in Article 415 of this license, to be used by the licensee for the purpose of installing an upstream fish passage facility. The licensee shall consult with the Tribe, the FWS, the BIA, and the WDNR on an annual basis starting in 2008 to discuss construction plans and designs, the target species for passage, and a schedule for fulfilling this license obligation. The licensee shall obtain the approval of the FWS and the WDNR regarding the functional and technical feasibility of the construction plans and designs prior to installing an upstream fish passage facility. Such plans and designs shall also be submitted to the Commission for approval and must be approved by the Commission before being implemented or constructed by the licensee.

Starting in 2008, the Annual Accounting Report required by Article 415 of this license shall describe the results of consultation, efforts towards installation of an upstream fish passage facility during the previous year and anticipated efforts for the coming year. Installation of an upstream fish passage facility shall be conditioned on design criteria indicating that total reduction in generation from this requirement, when combined with any reduction relating to the downstream fish protection facility requirement contained in article 418, does not exceed more than 5 percent of average annual generation.

The licensee states that the proposed article allows for \$65,000 to be used exclusively for the construction and installation of an upstream fish passage facility. As discussed in the SA, the Tribe agrees to be responsible for obtaining any additional funds necessary for the design and construction of fish passage. Once funds are available, the licensee is responsible for its construction, with design approval from the Commission, FWS, and the WDNR. Provided that the licensee complies with the license terms relating to fish passage as proposed here, the SA further states that Interior has agreed not to exercise section 18 authority for the remainder of the license term.

I. Installation of Downstream Fish Passage (article 418)

As discussed above regarding upstream passage, the licensee agrees that downstream passage is an appropriate means of contributing to healthy resident fish populations both above and below the project. The license states that fish entrainment is not solely a biological issue, but also is important in that it results in mortality of fish resources that are culturally and nutritionally essential to the Tribe. Therefore, the licensee proposes the following new article be included in the license:

Article 418. The licensee shall be responsible for the installation of a downstream fish protection facility, as follows: Commencing July 1, 2017 and continuing through and including July 1, 2021, the licensee shall contribute \$11,000 annually to the Shawano Resource Enhancement Fund established in Article 415 of the license, to be

used by the licensee for the purpose of the study, planning and installation of a downstream fish protection facility. The licensee shall obtain the approval of the FWS and the WDNR regarding the functional and technical feasibility of the construction plans and designs prior to installing a downstream fish passage protection facility.

Starting on or before July 1, 2015, the licensee shall consult with the Tribe, the FWS, the BIA, and the WDNR on an annual basis through and including the year 2021 to discuss study plans and results, construction plans and designs, a schedule for fulfilling this license obligation and any other relevant issues. Starting in 2015, the Annual Accounting Report required by Article 415 of this license shall describe the results of consultation, efforts towards installation of a downstream fish protection facility during the previous year and anticipated efforts for the coming year. Any plans and designs shall also be submitted to the Commission for approval and must be approved by the Commission before being implemented or constructed by the licensee. Installation of a downstream fish protection facility shall be conditioned on design criteria indicating that total reduction in generation from this requirement, when combined with any reduction relating to the upstream fish passage requirement contained in article 417, does not exceed more than 5 percent of average annual generation.

Per the proposed article, a total of \$55,000 would be provided to fund downstream fish passage. As with upstream passage, the Tribe would be responsible for obtaining additional funds for the facility. The licensee would be responsible for the construction of the facility.

J. Freshwater Mussel Restoration (article 419)

In the Commission's March 15, 2001 order on rehearing, the Commission speculated that the presence of certain mussel species below the dam, but not above, could simply be a normal characteristic of mussel distribution in Wolf River, and not population fragmentation caused by the existence of the project as DOI asserted. The parties now have agreed on a provision requiring the licensee to fund and implement a plan for freshwater mussel restoration. The licensee proposes the following article:

Article 419. Not later than January 1, 2016, the licensee shall file with the Commission a plan for freshwater mussel restoration. The licensee shall be responsible for implementation of the plan, as follows: Commencing January 1, 2017, and continuing through and including January 1, 2026, the licensee shall contribute \$1,750 annually to the Shawano Resource Enhancement Fund established pursuant to article 415 of this license, to be used by the licensee for the purpose of freshwater mussel restoration. The licensee shall consult with the Tribe, the FWS, the BIA and the WDNR on an annual basis starting on or before January 1, 2015 and through and including the year 2026 to discuss plans and schedules for freshwater mussel restoration efforts.

The licensee shall provide the draft plan to the FWS, the WDNR and the Tribe for review, allowing 30 days for comments before filing the plan with the Commission. The plan shall include any letters of comment from these entities. The Commission reserves the right to require changes to the plan.

K. License Term Extension Request

Lastly, the licensee proposes to extend the term of the project license to April 30, 2037.¹⁴ The licensee argues that it has agreed to numerous additional environmental mitigation measures and that implementation of these measures result in a significant financial obligation. The licensee states its funding obligations under the Settlement Agreement range from \$210,250 to \$218,250, depending on whether the full additional \$8,000 contribution is necessary for frazil ice booms. Given the size of the project and its revenue, the licensee contends the license term extension is both reasonable and warranted.

CONSULTATION AND PUBLIC NOTICE

The SA included with the application, was signed by the licensee (represented by attorney), the Tribe, the BIA, and the FWS. By letter dated October 2005, the WDNR concurred with the licensee's proposals.

The Commission issued a public notice of the application on May 16, 2006, with a comment period ending June 16, 2006. The DOI (on behalf of the BIA and FWS) and the Tribe filed Motions to Intervene on June 14, and 16, 2006, respectively. In their respective filings, both DOI and the Tribe expressed support of the licensee's amendment request. On June 19, 2006, DOI filed a letter stating that it had no additional comments on the application. No other parties filed comments in response to the notice.

In addition to the Commission's public notice and pursuant to Section 106 of the Historic Preservation Act, it requested concurrence from State Historical Society of Wisconsin (SHPO) that the licensee's proposed amendment application would have no effect on cultural or historic properties in the project area. No response was received.

DISCUSSION

First and foremost, I acknowledge the parties efforts in developing the SA and

¹⁴ The licensee in the SA, incorrectly refers to May 16, 2037 as the expiration date of the license provided that a 10-year extension is granted. Since the effective date of the license was May 1, 1997, the current license expires April 30, 2027. Granting a 10-year extension would result in the license expiring April 30, 2037.

proposed license articles. As the licensee correctly states, the Commission generally favors the development of settlement agreements and often adopts many of the provisions included in them. In the case here, the licensee, the Tribe, the BIA, and the FWS have come to agreement on a number of issues, including frazil ice prevention, fishery enhancement, purple loosestrife eradication, upstream and downstream gaging, trap and transport of lake sturgeon, upstream and downstream fish passage, and freshwater mussel restoration. Treatment of these resources at this project is the subject of a lengthy appeal, and I appreciate the effort expended by all the parties in resolving these issues.

A. The SA's Proposed Measures

As discussed in the attached EA, I find that completing work at the Commission-approved fishery enhancement sites, purple loosestrife eradication, assisting in the trap and transport of lake sturgeon, upstream and downstream fish passage, and developing a plan for freshwater mussel restoration in the project area will benefit environmental resources in the area. Installation of ice booms will minimize the potential for frazil ice-related flooding in the village of Keshena and the proposed gaging will allow for more complete and easily obtainable data for determining compliance. In accordance with the SA, the license will be amended to provide for these measures.

B. The SA's Funding Proposals

As explained above, the SA proposes adoption of a license amendment to provide for a fund to pay for the various measures listed above (article 415) as well as for amendments to various articles adding provisions related to the spending of funds and funding limits (articles 401, 403, 408 and 409, 414, and 416 through 419). The licensee notes that mitigation funds have been approved by the Commission in the past.

Settlements filed with the Commission often include specific dollar limitations,¹⁵ and the limitations sometimes are included in license articles at the parties' request, in an effort to revise proposed articles as little as possible. However, it is important for all entities involved in settlements to know that the Commission considers the licensee's obligation to be to complete the measures required by license articles, in the absence of authorization from the Commission to the contrary. Dollar figures agreed to by parties are not absolute limitations. The Commission's purpose in crafting license articles is to ensure that the licensee will complete the environmental measures required in the license, not that it spend a particular amount of money.¹⁶ Accordingly, in this instance, although

¹⁵ And in the case here, the licensee also proposes a limit on the negative impact on generation related to the installation of upstream and downstream fish passage.

¹⁶ See *Virginia Electric Power*, 110 FERC ¶ 61,241 at P 10 (2005); and *Central Vermont Public Service Corporation*, 113 FERC ¶ 61,167 at P 42 (2005).

the Shawano license will be amended to incorporate the proposed funding provisions as well as the negative impact on generation limits, article 420 will also be added to the license reserving the Commission's authority, notwithstanding the limitation on expenditures included in the license, to require the licensee to undertake such measures as may be appropriate and reasonable to implement the requirements of the license.

In revisions to article 403, the licensee proposes that the Tribe will provide additional funds for the establishment of a website to be used to display data collected at the downstream gage. Since the Commission only has jurisdiction over the actions of the licensee and could not enforce such a provision concerning the Tribe, this provision will not be included in the amended license. However, the parties' agreement for Tribal provision of additional funds is not inconsistent with the Federal Power Act. The parties therefore are free to abide by that agreement and, if necessary, to pursue enforcement of the agreement in an appropriate forum.

C. Frazil Ice Booms

Regarding the installation of the proposed frazil ice booms, the licensee only notes that the current proposed location for the ice booms is on Tribal lands. Approving this measure would mean that installation of the booms would be required and made part of the license. Thus, the booms would become project features. Given this fact and the schedule for installation in the near future, i.e., before 2010, the booms and the lands on which they are installed must be included within the project boundary, in accordance with standard Article 5 of the license. As such, I am requiring the licensee file revised exhibits F and G.

D. Purple Loosestrife

The Licensee's proposed article 409 provides for it to contribute \$1500 per year to the Shawano Resource Enhancement Fund, to be expended for the purpose of eradicating purple loosestrife within the project boundary, from December 31, 2007 through December 31, 2016. The licensee suggests that biocontrol efforts will eliminate the species from the project area by 2016. As discussed in the attached EA, there is no guarantee that this will occur. Therefore, the proposed article 409 will be modified to require eradication efforts to continue beyond 2016, and throughout the remainder of the license term. The continued eradication efforts will be required notwithstanding the limitation on expenditures included in the license article.¹⁷ If and when the evidence presented in the annual reports to be filed pursuant to article 415 document species eradication, the licensee may request that the Commission revisit this matter.

¹⁷ See discussion, *supra*, and article 420.

The proposed article 409 will also be modified to eliminate the language stating that funds will be expended by the licensee “at the direction of the Tribe.” This language will not be adopted because to do so would be to relinquish to the Tribe the Commission’s authority and responsibility to administer the license. However, the proposal will be substantially satisfied by a requirement that the licensee’s expenditures be made in consultation with the Tribe.¹⁸

E. License Term

The licensee requests a license term of 40 years, i.e., to April 30, 2037.¹⁹ The licensee estimates that the costs associated with its proposed environmental measures would be approximately \$210,250 to \$218,250 depending on whether a full additional \$8,000 is necessary for frazil ice boom installation.²⁰ Thus, at a minimum, assuming the licensee’s cost of \$210,250 at 8 percent interest, the annual cost of the proposed measures would be approximately \$21,000.²¹

The project as licensed, including the measures discussed above, will require a moderate amount of new environmental measures with associated construction and expense. Therefore, I will grant the request for a 40-year license term ending April 30, 2037.²²

The licensee’s request to amend the license, as modified above, is granted.

¹⁸ We will also modify some articles of the license to establish due dates for filing proposed plans with the Commission and, where necessary, to require the plans to be filed for Commission approval. These modifications are administrative in nature, and the licensee is free to request an extension of a deadline, if it deems an extension of time necessary.

¹⁹ See 16 U.S. C. § 808(e), which states that licenses may be issued for a term not less than 30 years, nor more than 50 years.

²⁰ As discussed in the attached EA, Commission staff estimate that costs may be even higher, depending on the timing of the installation of upstream fish passage and how many years trap and truck operation of lake sturgeon occur.

²¹ For purposes of this analysis, staff assumes a 20-year term.

²² I find this resolution appropriate because of the unique circumstances of this case, where the license is not final, the parties have been in court for nearly 10 years, and the parties’ settlement will make further litigation unnecessary.

The Director orders:

(A) The license for the Shawano Project No. 710 is amended as set forth in ordering paragraphs (B) through (M) below.

(B) Article 401 of the license for Project No. 710 is revised to read as follows:

Article 401. The licensee shall be responsible for the construction and installation of steel frazil ice booms to alleviate frazil ice flooding at the Shawano Project, as follows: No later than September 1, 2006 and September 1, 2007 the licensee shall deposit \$5,000 each year into the Shawano Resource Enhancement Fund, established pursuant to article 415 of this license, to be used for the purpose of construction and installing frazil ice booms. No later than September 1, 2008, the licensee shall contribute an additional \$7,000 to the Shawano Resource Enhancement Fund for the same purpose. In the event the initial cost or replacement cost of frazil ice booms exceeds \$55,000 in the aggregate, the licensee shall contribute, in addition to the \$17,000 identified above, 50 percent of the cost above \$55,000, but not to exceed an additional \$8,000. By January 15, 2010, the licensee shall submit a plan and design for the ice booms to the Commission for approval prior to construction and installation. The Commission reserves the right to require changes to the plan. Upon Commission approval, the licensee shall commence construction and installation, including any changes required by the Commission, on or before June 1, 2010.

The licensee shall consult with the Menominee Indian Tribe (Tribe) and the Bureau of Indian Affairs (BIA) annually to discuss the status of construction efforts, operation and maintenance concerns, and any other relevant issues. The Annual Accounting Report required by article 415 shall describe efforts to fulfill this license obligation during the previous year and anticipated efforts and costs for the coming year.

(C) Article 403 of the license is revised to add the following last paragraph:

No later than 30 days after the issuance date of this order, the licensee shall place in operation a website providing data from the existing downstream flow gaging station. Data from the flow gaging station shall be recorded in hourly increments, and the website updated twice daily at approximately 8:00 a.m. and 6:00 p.m. CST. The licensee shall be responsible for the continued operation and maintenance of the website for the life of the license, and shall provide sufficient upgrades as necessary to accommodate changes in technology, as determined in consultation with the Tribe. The licensee shall be responsible for one-half of the monthly cost to operate and maintain the website. The licensee shall make

website data available to the Tribe, the Wisconsin Department of Natural Resources (WDNR), the BIA, the U.S. Fish and Wildlife Service (FWS), the U.S. Geological Survey (USGS), and to the Commission.

(D) Article 408 of the license for Project No. 710 is revised to read as follows:

Article 408. The licensee shall implement the terms of the fishery enhancement plan approved and modified by Commission orders dated November 30, 1999 and May 15, 2000. The purpose of this plan is to enhance the aquatic habitat and the fishery in the project impoundment. From the year of issuance of this order through and including 2006, the licensee shall contribute \$5,200 (in 2003 dollars) annually, due no later than December 31 of each year, into the bank account existing at Fifth Third Bank in Petoskey, Michigan. No later than December 31, 2007, the licensee shall contribute an additional \$2,500 to said bank as a 2007 payment to the above-mentioned bank account, after which the licensee's funding obligation will cease. Annual contributions shall be indexed according to the Consumer Price Index and are to be used for the sole purpose of funding the approved fishery enhancement plan. Funds will be subject to disbursement following consultation with the Tribe and based on mutual agreement. The licensee shall provide the Tribe monthly bank statements reflecting activity in the account. The licensee's obligations to implement the substantive terms of the fishery enhancement plan will continue until all required mitigation set forth therein is completed.

The licensee shall file with the Commission an annual report on the status and schedule of the enhancement work and the results of any studies on the effectiveness of the enhancement measures. This report shall be filed no later than March 1 of each year for the previous year's activities and until enhancement of all sites identified in the approved fishery enhancement plan is completed. The licensee shall provide the reports to the FWS, the WDNR, and the Tribe, allowing 30 days for comments, before filing the reports with the Commission. The reports shall include any letters of comment from these entities.

(E) Article 409 of the license for Project No. 710 is revised to read as follows:

Article 409. The licensee shall monitor and survey purple loosestrife on an annual basis and in accordance with the approved Purple Loosestrife Monitoring Plan, 87 FERC ¶ 62,123 (1999), until the end of 2005, after which the licensee's responsibility to monitor purple loosestrife shall cease. The final monitoring report shall be filed with the Commission no later than December 31, 2006. Commencing December 31, 2007, and through and including December 31, 2016, the licensee shall contribute \$1,500 per year to the Shawano Resource Enhancement Fund established pursuant to article 415 of this license. These funds

shall be expended by the licensee, in consultation with the Tribe, for the purpose of eradicating purple loosestrife within the project boundary as approved by the Commission, 94 FERC ¶ 61,294 (2001) throughout the remainder of the license term.

The licensee shall consult with the Tribe, the FWS, the BIA, and the WDNR on an annual basis to discuss appropriate purple loosestrife eradication efforts. Eradication efforts should be in compliance with the approved Purple Loosestrife Monitoring Plan. The Annual Accounting Report required by article 415 of this license shall describe eradication efforts during the pervious year and anticipated efforts for the coming year.

(F) Article 414 of the license for Project No. 710 is revised to read as follows:

Article 414. The licensee shall participate in the May 1995 Menominee Reservation-Lake Sturgeon Management Plan ("Plan") as follows: The licensee shall consult with the Tribe, the FWS, the BIA, and the WDNR on an annual basis to discuss ongoing trap and transport operations and to assess the continuing need for such operations, and shall include a report on such consultations in the Annual Accounting Report required in article 415 of this license. Commencing September 1, 2006, the licensee shall contribute \$1,500 annually to the Shawano Resource Enhancement Fund established in article 415 of this license, to be used for the purpose of trap and transport of lake sturgeon in accordance with the Plan. This annual payment is due no later than June 30 of each year and shall continue until an upstream fish passage facility is installed and operational, or until the Commission determines, following consultation as set forth above, that trap and transport is no longer necessary, at which time the licensee's annual \$1,500 contribution for trap and transport of lake sturgeon shall cease.

(G) The following article is added to the license for Project No. 710:

Article 415. The licensee, together with the Tribe, shall establish the Shawano Resource Enhancement Fund no later than 60 days after the date of this order. The Fund shall be established for the mitigation measures set forth in articles 401, 409, 414, 416, 417, 418, and 419 as set forth in this order. If any of the payments required by these articles are not paid by the licensee within 30 days of the due date specified in each article, interest shall accrue at the rate of 6% per annum, owing on the unpaid amount from the specified due date until paid. All interest accrued in the Fund shall be applied in fulfillment of these articles on a pro rata basis after adjustment for the payment of any fees and/or taxes assessed upon the fund.

By March 1 of each year, the licensee shall file with the Commission an

Annual Accounting Report that describes the activities that have been funded by the Shawano Resource Enhancement Fund in the previous year and anticipated activities and associated costs for the coming year. The report shall include proof of consultation with and any comments from the Tribe, the FWS, the BIA, and the WDNR. The licensee shall allow the Tribe and the agencies a minimum of thirty days to comment and to make recommendations before the report is filed with the Commission. If the licensee does not adopt a recommendation, the report shall include the licensee's reasons, based on project-specific information. The report shall also include any letters of comment from the Tribe and the agencies.

(H) The following article is added to the license for Project No. 710:

Article 416. Not later than December 31, 2006, the licensee shall make a one-time payment to the Shawano Resource Enhancement Fund established in Article 415 of this license, to be used towards the installation of an upstream USGS gaging station. The amount of the payment shall be \$3,250 in the event costs for installing the upstream gaging station are \$10,000 or higher. The amount of the payment shall be 25 percent of the costs for installing the upstream gaging station if such costs are less than \$10,000. In addition, beginning on September 1, 2006, the licensee shall pay \$1,200 annually (without adjustment for inflation) to be used exclusively for annual maintenance costs for the upstream gaging station. This \$1,200 annual payment shall be deposited into the Shawano Resource Enhancement Fund and is required for the remainder of the license term. The gaging station shall be located within the Project boundary.

(I) The following article is added to the license for Project No. 710:

Article 417. The licensee shall be responsible for the installation of an upstream fish passage facility, as follows: The licensee shall contribute \$5,000 per year commencing January 1, 2008, through and including January 1, 2012, and \$10,000 per year commencing January 1, 2013, through and including January 1, 2016, to the Shawano Resource Enhancement Fund established in Article 415 of this license, to be used by the licensee for the purpose of installing an upstream fish passage facility. The licensee shall consult with the Tribe, the FWS, the BIA, and the WDNR on an annual basis starting in 2008 to discuss construction plans and designs, the target species for passage, and a schedule for fulfilling this license obligation. The licensee shall obtain the approval of the FWS and the WDNR regarding the functional and technical feasibility of the construction plans and designs prior to installing an upstream fish passage facility. Such plans and designs shall be filed with the Commission for approval no later than January 31, 2016, and must be approved by the Commission before being implemented or constructed by the licensee.

Starting in 2008, the Annual Accounting Report required by Article 415 of this license shall describe the results of consultation, efforts towards installation of an upstream fish passage facility during the previous year and anticipated efforts for the coming year. Installation of an upstream fish passage facility shall be conditioned on design criteria indicating that total reduction in generation from this requirement, when combined with any reduction relating to the downstream fish protection facility requirement contained in article 418, does not exceed more than 5 percent of average annual generation.

(J) The following article is added to the license for Project No. 710:

Article 418. The licensee shall be responsible for the installation of a downstream fish protection facility, as follows: Commencing July 1, 2017 and continuing through and including July 1, 2021, the licensee shall contribute \$11,000 annually to the Shawano Resource Enhancement Fund established in Article 415 of the license, to be used by the licensee for the purpose of the study, planning and installation of a downstream fish protection facility. The licensee shall obtain the approval of the FWS and the WDNR regarding the functional and technical feasibility of the construction plans and designs prior to installing a downstream fish passage protection facility.

Starting on or before July 1, 2015, the licensee shall consult with the Tribe, the FWS, the BIA, and the WDNR on an annual basis through and including the year 2021 to discuss study plans and results, construction plans and designs, a schedule for fulfilling this license obligation and any other relevant issues. Starting in 2015, the Annual Accounting Report required by Article 415 of this license shall describe the results of consultation, efforts towards installation of a downstream fish protection facility during the previous year and anticipated efforts for the coming year. Plans and designs shall be filed with the Commission for approval no later than January 31, 2021, and must be approved by the Commission before being implemented or constructed by the licensee. Installation of a downstream fish protection facility shall be conditioned on design criteria indicating that total reduction in generation from this requirement, when combined with any reduction relating to the upstream fish passage requirement contained in article 417, does not exceed more than 5 percent of average annual generation.

(K) The following article is added to the license for Project No. 710:

Article 419. Not later than January 1, 2016, the licensee shall file with the Commission, for approval, a plan for freshwater mussel restoration. The licensee shall be responsible for implementation of the plan, as follows: Commencing January 1, 2017, and continuing through and including January 1, 2026, the licensee shall contribute \$1,750 annually to the Shawano Resource Enhancement

Fund established pursuant to article 415 of this license, to be used by the licensee for the purpose of freshwater mussel restoration. The licensee shall consult with the Tribe, the FWS, the BIA and the WDNR on an annual basis starting on or before January 1, 2015 and through and including the year 2026 to discuss plans and schedules for freshwater mussel restoration efforts.

The licensee shall provide the draft plan to the FWS, the WDNR and the Tribe for review, allowing 30 days for comments before filing the plan with the Commission. The plan shall include any letters of comment from these entities. The Commission reserves the right to require changes to the plan.

(L) The following article is added to the license for Project No. 710:

Article 420. Notwithstanding the limitation on expenditures included in this license, the Commission reserves the right to require the licensee to undertake such measures as may be appropriate and reasonable to implement approved plans and other requirements in this license.

(M) Within 30 days of completion of construction of the frazil ice booms required by article 401, the licensee shall file revised exhibit F and G drawings, to incorporate these features into the project license and project boundary.

(N) This order constitutes final agency action. Requests for rehearing by the Commission may be filed within 30 days from the date of issuance of this order, pursuant to 18 C.F.R. § 385-713.

Joseph D. Morgan
Director
Division of Hydropower Administration
and Compliance

ENVIRONMENTAL ASSESSMENT

APPLICATION FOR AMENDMENT OF LICENSE

Shawano Project
FERC No. 710-038
Wisconsin



Federal Energy Regulatory Commission
Office of Energy Projects
Division of Hydropower Administration and Compliance
888 First Street, N.E.
Washington, D.C. 20426

August 2006

ENVIRONMENTAL ASSESSMENT

FEDERAL ENERGY REGULATORY COMMISSION OFFICE OF ENERGY PROJECTS DIVISION OF HYDROPOWER ADMINISTRATION AND COMPLIANCE

1.0 APPLICATION

On April 27, 2006, Wolf River Hydro Limited Partnership (licensee) filed a request to amend the project license for the Shawano Project, located on the Wolf River in Shawano County, Wisconsin, and, in part, within the Menominee Indian Reservation. The licensee states that the amendment application is the result of a collaborative effort to resolve pending court appeals regarding the new license, issued on May 16, 1997.¹

The licensee's April 27 filing includes a Settlement Agreement (SA) between the licensee, the Menominee Indian Tribe of Wisconsin (Tribe) and the U.S. Department of the Interior (Interior), acting through the Bureau of Indian Affairs (BIA) and the U.S. Fish and Wildlife Service (FWS).² In addition, the licensee states that the Wisconsin Department of Natural Resources (WDNR) concurs with the proposals. The licensee requests amendment of the license as described below and an extension of the project license term to 2037. The current license expires in 2027.

2.0 PURPOSE AND NEED FOR ACTION

The purpose of this Environmental Assessment (EA) is to analyze the environmental effects of the proposed action and provides a basis for the Commission to make an informed decision on the licensee's application. The analysis of this EA looks solely at the environmental measures proposed by the licensee, not whether the proposed funding is adequate to implement the measures. It also does not consider the licensee's request to extend the license term.

¹ 79 FERC ¶ 61,181 (1997). See also Order on Rehearing and Complaint, Approving Revised Exhibit G, and Setting Matter for Hearing, issued on March 15, 2001 (94 FERC ¶ 61,294).

² From this point forward, referring to the SA includes its amended language contained in Appendix C of the licensee's application.

3.0 PROPOSED ACTION AND ALTERNATIVES

3.1 Proposed Action

In the application, the licensee proposes five new license articles that would require the licensee to: (1) establish a Shawano Resource Enhancement Fund (article 415); (2) install upstream gaging (article 416); (3) construct upstream fish passage facilities (article 417); (4) construct downstream fish passage facilities (article 418); and (5) develop a plan for freshwater mussel restoration (article 419). Secondly, the licensee proposes modifications to five existing requirements of the license that regard: (1) frazil ice formation (article 401); (2) fisheries enhancement (article 408); (3) downstream gaging (article 403); (4) purple loosestrife (article 409); (5) trap and transport of lake sturgeon (article 414). For brevity, the exact language of the proposed license articles is not detailed here, but can be found in the licensee's April 27, 2006 filing.

Within the proposed license articles, the licensee provides a schedule for depositing monies into the resource enhancement fund³ that would provide for implementation of these measures staggered over the remainder of the license term. Lastly, the licensee requests to extend the project license term ten years from April 30, 2027, to April 30, 2037.⁴

3.2 Action Alternatives

There are no identified action alternatives for this proposal.

3.3 No-action Alternative

The no-action alternative consists of denying the licensee's application for amendment of license and denying the licensee's request for extension of the license term.

4.0 CONSULTATION

The licensee's April 27 filing includes a Settlement Agreement (SA) between the licensee, the Tribe, and Interior, acting through the BIA and the FWS. By letter dated

³ A fund related to the fishery enhancement measures was established by the approved fishery enhancement plan. See 89 FERC ¶ 62,167 and 91 FERC ¶ 62,109.

⁴ The licensee in the SA incorrectly refers to May 16, 2037 as the expiration date of the license provided that a 10-year extension is granted. Since the effective date of the license was May 1, 1997, the current license expires April 30, 2027. Granting a 10-year extension would result in the license expiring April 30, 2037.

October 20, 2005, the WDNR concurs with the licensee's proposal.

The Commission public noticed the application on May 16, 2006, with a comment period ending June 16, 2006. The DOI (on behalf of the BIA and FWS) and the Tribe filed Motion's to Intervene on June 14, and 16, 2006, respectively. In their respective filings, both DOI and the Tribe expressed support of the licensee's amendment request. On June 19, 2006, DOI filed a letter stating that it had no additional comments on the application. No other parties filed comments in response to the notice.

In addition to our public notice and pursuant to Section 106 of the Historic Preservation Act, we requested comments from the State Historical Society of Wisconsin (SHPO) by letter dated July 10, 2006. This consultation is discussed in the appropriate sections below.

5.0 AFFECTED ENVIRONMENT

The Shawano Project is located on the Wolf River in Shawano County, Wisconsin, and in part within the Menominee Indian Reservation. Project facilities lie 4.5 miles to the north-northwest of Shawano, Wisconsin (Wolf River Hydro Limited Partnership, 2006). Unless otherwise noted, the information contained in this section was based on Commission staff's Environmental Assessment (EA) prepared for the application for license, issued February 17, 1993.

5.1 Water Resources

The project's impoundment extends upstream to the village of Keshena, within the Menominee Indian Reservation (Wolf River Hydro Limited Partnership, 2006). At normal pool, the project's impoundment has a surface area of 149.6 acres and extends approximately 2.4 miles upstream of the Menominee Indian Reservation (Wolf River Hydro Limited Partnership, 2006).⁵

In the project vicinity, the water of the Wolf River is classified as a warmwater sport fishery. It is considered acceptable for propagation of fish and other life and wild and domestic animals, domestic and recreational purposes, and agricultural, commercial, industrial and other legitimate uses. The State standard for dissolved oxygen (DO) is 5.0 milligrams per liter (mg/l) at all times, with temperatures not to exceed 89°F for warmwater fish, a pH within the range of 6-9, and substance toxicity concentrations within the Environmental Protection Agency's guidelines.

Water quality sampling in the project area in 1991 identified few violations from

⁵ In Commission staff's EA, we determined that the reservoir covered approximately 84 acres and extends almost to the north boundary of Shawano County.

state standards. Based on biological sampling also conducted in 1991, waters upstream and downstream of the project dam were classified as “very good” and “good”, respectively. The project operates in a run-of-river mode, as required by article 402 of the license. This is defined by article 402 as maintaining a target elevation of 818.0 feet National Geodetic Vertical Datum (NGVD) \pm 0.3 foot.

Frazil ice at times can form in the project area resulting in flooding in the village of Keshena. The Commission previously concluded that the project bears at least some responsibility for the flooding problem. Consequently, the Commission modified article 401⁶ to require the licensee develop a plan for control of frazil ice at the project. The plan was to include an evaluation of alternatives to alleviate the frazil ice-related problems at the project, to include the installation of ice-booms or other alternatives.

5.2 Fish and Aquatic Resources

Fish species in the project area include walleye, smallmouth bass, largemouth bass, northern pike, yellow perch, muskellunge, bullhead, catfish, mooneye, white bass, carp, redhorse, suckers, and panfish. The WDNR manages the Wolf River primarily for smallmouth bass. In addition, there is a spring spawning run of lake sturgeon up to the exempted Shawano Paper Mill Dam (FERC No. 8015), located 5.3 miles downstream of the project, which blocks upstream migration.

Mussel species upstream of the project dam include: the threeridge mussel, giant floater mussel, creek heelsplitter, pink heelsplitter, and the Salamander mussel. Mussel species found downstream of the project dam, but not upstream, include the paper pondshell, snuffbox, white heelsplitter, fragil papershell, hickorynut, threehorn wartyback, mapleleaf, pimpleback, lilliput, buckhorn, and deertoe (Department of Interior, 1997). The DOI identified the snuffbox mussel and Salamander mussel as Federal Species of Concern,⁷ as well as being state-listed species. In addition, the buckhorn mussel is a state threatened species. The health of these three species is of particular concern (Department of Interior, 1997).

5.3 Terrestrial Resources

Lands within the project boundary can be categorized as upland forest, palustrine wetlands (both forested and emergent), and lacustrine littoral and limnetic aquatic bed.

⁶ Article 401 originally required the licensee to cooperate in any future efforts by the U.S. Corps of Engineers and the Tribe to study the formation of frazil ice and flood control, with the filing of semi-annual reports to the Commission regarding the studies.

⁷ Species of Concern is an informal FWS designation which does not entail legal protection under the Endangered Species Act, and use of the term does not necessarily mean that the species will eventually be proposed for listing as threatened or endangered.

Dominant tree species include white pine, northern red oak, white oak, red maple, sugar maple, white birch, and black ash. Wild rice and the highly invasive purple loosestrife are dominant in wetland areas. As discussed in the licensee's 2001 monitoring report, purple loosestrife is relatively widespread at the project increasing in both stand area and in the number of spot occurrences compared to previous years' monitoring (Wolf River Hydro Limited Partnership, 2002).

Wildlife species that are observed in the project area include resident and migratory waterfowl, such as wood duck, mallard, merganser, blue-winged teal. Eastern painted turtle, snapping turtle, wood turtle, and garter snake are common reptiles found in the area. Amphibians include the mud puppy, American tree frog, green frog, and leopard frog. Typical mammals include beaver, muskrat, squirrels, chipmunks, and rabbits.

No species listed under the Endangered Species Act is known to occur in the project area. Bald eagles forage along the Wolf River and may migrate through the area, but none are known to nest in the project area. Article 410 of the license required the licensee to file a plan to preserve all suitable bald eagle nest trees located on project lands. This plan was filed on November 13, 1997, and approved by the Commission on April 6, 1999. The licensee identified no trees suitable for bald eagle nesting, but if such trees develop on project lands, the licensee is responsible for maintaining and protecting those trees.

In general, lands in the project area are primarily undeveloped forest lands, agricultural lands, and rural residential properties.

5.4 Recreation Resources

Recreation activities at the project are limited and primarily include fishing, swimming, and boating. Annual visitation at the project in 1991 was estimated at 772 visitors.

Article 412 of the license originally required the licensee to make the following improvements at an existing boat access area on the west bank of the flowage: (1) pave the access road; (2) provide parking for 2-3 vehicles with trailers; and (3) install a prefabricated concrete ramp. On August 13, 2001, the licensee filed a request to delete the requirements of this article. Given that the existing area was already paved and had ample parking, article 412 was deleted from the license by Commission order issued April 30, 2002.⁸

⁸ See Order Deleting License Article 412, issued on April 30, 2002 (99 FERC ¶ 62,078).

5.5 Cultural Resources

The project dam and powerhouse are not eligible for listing on the National Register of Historic Places. However, archaeologically and culturally significant sites are found throughout the project area including prehistoric sites, seven historic Menominee homesteads, and six other sites. Two of these sites, a historic cemetery and a mound group, are National Register eligible.

Article 411 of the license requires the licensee implement the provisions of the “Programmatic Agreement Among the Federal Energy Regulatory Commission, the Wisconsin State Historic Preservation Office, and the Advisory Council on Historic Preservation Office, for the Management of Historic Properties that May be Affected by a License Issuing to Wisconsin Power & Light Company to Continue Operating the Shawano Hydroelectric Project (PA).”

The PA requires the licensee to develop a Cultural Resources Management Plan (CRMP). It also defines the procedures to be followed in the interim until such a plan is approved by the Commission, which includes consultation with the SHPO about potential for effects to historic properties through ground-disturbing activities and active erosion at the shoreline. The PA also provides guidelines for all study and report preparation, handling of archaeological data recovery, treatment of human remains and other cultural items encountered on Tribal Lands of the Menominee as well as Shawano County in general, and the curation of archaeological collections, notes, maps, and other documentation. It also includes provisions for dispute resolution.

6.0 ENVIRONMENTAL IMPACTS

6.1 Water Resources

Only during the construction of upstream and downstream fish passage is a potential for adverse impacts on water quality expected. No details were provided regarding the type of facilities to be constructed or the extent of ground disturbing activities involved with construction. However, any adverse impacts resulting from construction would be temporary in nature. As proposed by the licensee, a detailed plan for these facilities would be filed with the Commission prior to construction. Review of the detailed plans at that time would allow us to identify any necessary measures to minimize any potential impacts on water quality.

Another proposed measure includes the installation of ice booms upstream of the project. Ice boom installation would minimize impacts associated with frazil ice flooding upstream of the project, benefiting those residents that are affected in Keshena. Ice boom installation is not expected to adversely affect water quality. The proposed changes to the fisheries enhancement plan and purple loosestrife plans, and the proposals regarding

gaging, trap and truck of lake sturgeon, and freshwater mussel restoration are not expected to result in any adverse impacts to water quality.

Gaging improvements, also proposed, would assist the licensee and the parties in determining compliance with the requirements of the license and therefore would also be beneficial.

6.2 Fish and Aquatic Resources

Many of the measures proposed by the licensee would directly benefit the aquatic resources in the project area. These measures include trap and transport of lake sturgeon, upstream and downstream fish passage, fisheries enhancement, and freshwater mussel restoration. Specifics are described below. No permanent adverse impacts from any of the proposed measures are expected on fish and other aquatic resources. Some displacement of individual fish may occur during construction of fish passage facilities or the installation of ice booms. This adverse effect would be temporary in nature.

Constructing fish passage facilities at the project would assist in reestablishing lake sturgeon upstream of the project. Since 1995, lake sturgeon have been transported, tagged, and released upstream of the project dam (Wolf River Hydro Limited Partnership, 2006). Some of these fish have since migrated downstream of the project. The licensee's application documented the presence of at least 10 lake sturgeon between the Shawano Paper Mill Dam (P-8015), downstream, and the project's dam (Wolf River Hydro Limited Partnership, 2006). Upstream passage at the project would provide these fish a safe route around the dam and access to upstream Tribal lands and waters.

Article 408 originally required the licensee to develop a fishery enhancement plan for the project with an annual cost not to exceed \$4,100 (in 1993 dollars), through the term of the license. The licensee filed the plan on August 5, 1999. The plan was modified and approved by the Commission on November 30, 1999.⁹ Subsequently, the licensee filed proposed modifications to the plan on February 29, 2000, which were approved by the Commission by order issued May 15, 2000.¹⁰

The approved fishery enhancement plan requires the improvement/enhancement of six sites in the project impoundment. Improvements include rip rap of the shoreline, use of half-logs in some areas, use of anchored tree drops, and enhancement of marsh areas with vegetation.

The licensee proposes to modify article 408 only to cite to the approved plan and to outline the funding that would be provided to complete work at the sites that have yet

⁹ See 89 FERC ¶ 62,167 (1999).

¹⁰ See 91 FERC ¶ 62,109 (2000).

to be completed, Sites 1 and 2. Only beneficial effects are expected from completing the required enhancement projects outlined in the approved plan.

The licensee proposes to develop, in consultation with the Tribe, FWS, and the WDNR, a plan for freshwater mussel restoration. The plan would be developed by January 2016. In its application, the licensee states that the types of activities that would be implemented might include population monitoring, habitat assessment and possible relocation of mussel species to the area. Population monitoring and habitat assessments would identify areas where mussel species are most abundant in the project area, or most likely to occur. Active reseeded of individuals in the area may improve the likelihood of the development of self-sustaining populations. Providing fish passage at the project may also indirectly benefit the mussel species in the area, by allowing movement of host fish throughout the project area.

6.3 Terrestrial Resources

Regarding terrestrial resources, the licensee proposes changes to article 409 of the license, which required the development of a plan to monitor purple loosestrife within the project boundary. This plan was filed on November 13, 1997, and approved by the Commission on May 3, 1999.¹¹ In part, the approved plan requires the licensee to survey for purple loosestrife between July 15 and September 1 of each year, documenting the dominant and spot occurrences on maps, and physically removing any purple loosestrife found. Further, the licensee is required to submit annual reports to the WDNR and FWS by December 31 of each year regarding the monitoring, and file them with the Commission, along with any agency comments.

The licensee's proposed changes involve eliminating monitoring after 2006, but continuing efforts to eradicate the species through 2016. Annual reports filed with the Commission through 2016 would document the licensee's success in this regard. The licensee speculates that after 2016, biocontrol efforts¹² may eradicate the species from the project area.

Continued eradication efforts, as proposed by the licensee, would benefit native plants in the area, and hopefully control the spread of this invasive species. While we would like to agree with the licensee that biocontrol efforts may effectively eliminate the species from the project area by 2016, there is no guarantee that this would occur.

¹¹ 87 FERC ¶ 62,123 (1999).

¹² Presumably, the licensee is referring to leaf beetles (*Galerucella sp.*) that feed on the bud, leaf and stem tissue of purple loosestrife causing defoliation and prevention of flowering/seed production. In some areas, this means of biocontrol has been very effective.

6.4 Recreation Resources

Recreation at the project is extremely limited. No measures that the licensee has proposed directly involve recreation. Only during construction of fish passage facilities would there exist a potential for adverse impacts on recreational fishing or boating. This impact is expected to be minimal, if any. In sum, little to no impact on recreation resources is expected under the licensee's proposal.

6.5 Cultural Resources

Culturally significant resources are many in and near the project area, particularly on Tribal lands. One aspect of the licensee's proposed amendment application involves the installation of ice booms in efforts to minimize frazil ice related flooding on Tribal lands. No detail was provided on the location of installation, or what storage of the booms would entail. The licensee only states that the proposed location of the ice booms is on lands held in trust by the United States for the benefit of the Tribe.

Similar to its approach to fish passage, the licensee proposes to file with the Commission, for approval, a detailed plan prior to construction and installation of the ice booms. Ice booms installation would occur no later than June 1, 2010. A detailed plan would be filed prior to this date, which will allow for Commission review at that time. We expect that the plan will provide for the licensee to work with the Tribe in determining the exact location for the ice boom installation and storage, and that such collaboration will result in the avoidance of areas of cultural significance. We agree with this approach.

By letter dated July 10, 2006, we requested concurrence from the SHPO that based on the information contained in the licensee's application, there would be no effect on historic or culturally significant properties resulting from the licensee's proposal. No comments were received. Consultation under section 106 of the Historic Preservation Act is complete.

As required, the licensee would continue to abide by the conditions outlined in the PA. Thus, we expect that all historic and culturally significant properties in the area will be protected.

7.0 SECONDARY AND CUMULATIVE EFFECTS

Secondary impacts are those that are indirectly caused by or result from an activity and are reasonably foreseeable. They may occur later in time than the activity and be removed in terms of distance. According to the Council on Environmental Quality's regulations for implementing the National Environmental Policy Act, an action may cause cumulative impacts on the environment if its impacts overlap in space and/or time

with the impacts of the other past, present, or reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions.

We have identified no secondary and cumulative impacts associated with the licensee's proposal.

8.0 NO-ACTION ALTERNATIVE

Under the No-Action alternative, the environmental measures proposed by the licensee would not be made part of the license.

9.0 CONCLUSION AND RECOMMENDATIONS

The licensee's proposed measures include: (1) the installation of ice booms upstream of the project; (2) completion of the two fishery enhancement sites that have yet to be completed; (3) eradication of purple loosestrife through 2016; (3) establishment of a website for the downstream gage available to the Tribe, WDNR, the BIA, the FWS, the USGS, and the Commission; (4) establishment of an upstream gaging station; (5) participation in trap and transport of lake sturgeon; (6) installation of upstream fish passage facilities; (7) installation of downstream fish passage; and (8) a plan for freshwater mussel restoration. In general, these measures are beneficial in nature, improving habitat for fish and mussels in the project area, as well as assisting the various parties in determining compliance through improvements to gaging. Installation of frazil ice booms should minimize frazil ice related flooding in Keshena, also a benefit.

In our review of the proposed action, we did not identify any significant impacts to the human environment should the Commission amend the license for the project as proposed. Only during construction of some of the proposed fish passage facilities might there be temporary impacts to water quality, aquatic resources, and recreation at the project. The magnitude of such an impact is unknown at this time, since no details were provided in the application regarding the type of facilities to be constructed. Conceptual plans would be filed with the Commission closer to the timing of facility installation that would allow for more in-depth review by Commission staff. We note here that installation of fish passage would likely require revisions to the approved exhibit drawings. Given the length of time that would pass prior to facility installation, we consider it best to require revised exhibit drawings, if needed, at the time of Commission staff's review of these detailed plans.

Similarly, a detailed plan for the ice boom installation would be filed for Commission approval. According to the licensee's schedule, the filing of such a plan would occur sometime before June 1, 2010. In the application before us, the licensee only notes that the current proposed location for the ice booms is on Tribal lands.

Approving this measure would mean that installation of the booms would be required and made part of the license. Thus, the booms would become project features. Given this fact and the schedule for installation in the near future, i.e., before 2010, the booms and the lands on which they are installed must be included within the project boundary, in accordance with standard Article 5 of the license. As such, we recommend requiring the licensee file revised exhibits F and G.

Although the licensee's proposed license articles 417 and 418 require the installation of upstream and downstream fish passage facilities, respectively, the language of the SA indicates that it has not yet been determined that installation of these facilities is feasible at the project. Ultimately, if upstream fish passage is considered infeasible, the funds for upstream fish passage would be used for continued support of trap and truck operations. Only beneficial effects are expected from installation of upstream and downstream fish passage facilities and continued support of trap and truck of lake sturgeon. With adoption of the licensee's proposed language (as new articles 417 and 418), actual facility construction would be required by the license. In the event that fish passage facilities are considered infeasible, the licensee would need to file an application to amend the license to remove these requirements.

The proposed modifications to article 409 would effectively require eradication of purple loosestrife at the project through 2016. We noted in Section 6.3 of this EA, that purple loosestrife is relatively widespread at the project and it may still be present at the project in 2016. Eradication efforts may be necessary after that time. We therefore recommend, modifying article 409 to require continued efforts beyond 2016 to eradicate purple loosestrife. Based on evidence presented in the annual reports proposed to be filed pursuant to article 415, the licensee may request the Commission eliminate this requirement at a later date.

Approval of the licensee's application, with the proposed environmental measures, would not constitute a major federal action significantly affecting the quality of the human environment and is in the public interest.

10.0 LITERATURE USED

Department of Interior. 1997. Conditions Filed Pursuant to Section 4(e) of the Federal Power Act. Filed on June 16, 1997. p. 31.

Federal Energy Regulatory Commission (FERC). 1993. Environmental Assessment for the Shawano Hydroelectric Project, issued February 17, 1993.

FERC. 2001. Order on Rehearing and Complaint, Approving Revised Exhibit G, and Setting Matter for Hearing, issued on March 15, 2001 (94 FERC ¶ 61,294). p. 12

Wolf River Hydro Limited Partnership. 2006. Application to Amend License and Request for Expedited Treatment.

Wolf River Hydro Limited Partnership. 2002. 2001 Report on Monitoring for Purple Loosestrife, filed on April 1, 2002.

11.0 PREPARED BY

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