## UNITED STATES OF AMERICA 116 FERC ¶62,188 FEDERAL ENERGY REGULATORY COMMISSION

Flambeau Hydro, LLC

Project No. 9184-013

#### ORDER ISSUING SUBSEQUENT LICENSE

(September 5, 2006)

#### **INTRODUCTION**

1. On June 10, 2005, pursuant to Part I of the Federal Power Act (FPA), Flambeau Hydro, LLC (Flambeau) filed an application for a subsequent license to continue to operate the existing 1,076-kilowatt (kW) Danbury Project No. 9184. The project is located on the Yellow River in Burnett County, Wisconsin. The project does not occupy federal land. As discussed below, I am issuing a subsequent license for the project.

#### **BACKGROUND**

2. The Commission issued the original license for the project on June 10, 1987,<sup>3</sup> for a period expiring on June 9, 2007.<sup>4</sup>

<sup>&</sup>lt;sup>1</sup> 16 U.S.C. §§ 791a – 825r (2000).

<sup>&</sup>lt;sup>2</sup> The project is located on the Yellow River, a tributary of the St. Croix River, a navigable waterway; it is connected to the interstate distribution grid; and was constructed in 1949. Since the project is located on a stream over which Congress has Commerce Clause jurisdiction, it affects interstate commerce, and it includes post-1935 construction, it is required to be licensed under section 23(b)(1) of the FPA. 16 U.S.C. § 817(1) (2000).

 $<sup>^3</sup>$  39 FERC ¶ 62,294 (1987). The original license was issued to the Northwestern Wisconsin Electric Company. In 2001, the license was transferred to Flambeau. 94 FERC ¶ 62,059.

<sup>&</sup>lt;sup>4</sup> This project was required to have been licensed as of 1949, when post-1935 construction of the project commenced. Therefore, when the Commission licensed the project in 1987, it backdated the license to 1957, consistent with Commission practice, thus allowing the maximum possible license term (50 years), while giving the licensee 20 years to operate under the license before it expired. 39 FERC ¶ 62,294 at 63,644.

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- 3. Notice of the application was published in the Federal Register on June 21, 2005. A timely notice of intervention (which did not include any comments) was filed by the Wisconsin Department of Natural Resources (Wisconsin DNR). Wisconsin DNR does not oppose issuance of a subsequent license.
- 4. On February 7, 2006, the Commission issued public notice that the project was ready for environmental analysis and solicited comments, recommendations, terms and conditions, and prescriptions. The U.S. Department of the Interior (Interior) filed recommendations.<sup>6</sup>
- 5. An environmental assessment (EA) was prepared by Commission staff and issued on June 9, 2006. The EA contains background information, analysis of impacts, and support for related license articles. The Wisconsin Historical Society filed comments on the EA. The U.S. Geological Survey (USGS) also filed a letter stating it had no comment.
- 6. The motion to intervene, comments, and recommendations have been fully considered in determining whether, and under what conditions, to issue this license.

#### PROJECT DESCRIPTION

- 7. The Danbury Project consists of a 48-foot-long and 30-foot-high concrete spillway with three bays equipped with steel slide gates connected to a 300-foot-long earthen dike that impounds a 255-acre reservoir known as the Danbury Flowage. The project has two powerhouses. Two 26-foot-long penstocks lead to Plant 1, which is integral to the dam and contains two generating units with a total installed capacity of 476 kW. Plant 1 discharges water into the bypassed reach immediately downstream of the dam. A 2,500-foot-long power canal that conveys water from the project impoundment to a 95-foot-long penstock that leads to Plant 2 which, contains a 600-kW generating unit that discharges water into a 200-foot-long tailrace. Plant 2 bypasses a 2,600-foot-long reach of the Yellow River. Project power is transmitted to the regional grid via a 2,350-foot-long transmission line from Plant 1 and a 150-foot-long transmission line from Plant 2. A more detailed project description is contained in ordering paragraph (B)(2).
- 8. With the exception of the project's two transmission lines, the proposed project boundary encloses the facilities described above as well as the reservoir up to a pool

<sup>&</sup>lt;sup>5</sup> The motion was timely, unopposed, and therefore is automatically granted. 18 C.F.R. § 385.214(c)(1) (2006).

<sup>&</sup>lt;sup>6</sup> Interior also filed a subsequent letter clarifying its recommendations.

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elevation of 930.21 feet National Geodetic Vertical Datum (NGVD). As discussed below, this order requires Flambeau to submit for Commission approval a revised project boundary that includes the two transmission lines and a canoe portage at the project.

- 9. The current license requires Flambeau to operate the project in a run-of-river mode from April 15 through June 15, and allows for limited peaking the remainder of the year, as well as temporary modification of run-of-river operation during operating emergencies beyond the control of the licensee, and for short periods upon mutual agreement between the licensee, the Wisconsin DNR, and the U.S. Fish and Wildlife Service. The current license also requires Flambeau to release seasonal minimum flows of 50 cubic feet per second (cfs) from December 1 through February 28, and 123 cfs from March 1 through November 30, or inflow whichever is less. The minimum flows are released from Plant 1 into the bypassed reach. The project is manually operated.
- 10. Flambeau currently voluntarily operates the project in run-of-river mode year round, maintaining a target reservoir elevation of 929.21 feet NGVD from April through October, and 928.11 feet NGVD from November through March. Flambeau states that the lowering of the reservoir elevation from November through March is to help maintain a seasonally lowered target water elevation in the upstream Little Yellow Lake and Yellow Lake. Flambeau also currently adheres to a voluntary ramping schedule for the seasonal change in target reservoir elevations that consists of a drawdown period to lower the elevation beginning on November 1 and ending by November 20 of each year, and a spring raising of the water elevation beginning after ice-out and ending no later than one week after ice-out or April 1 of each year, whichever is later.
- 11. Flambeau proposes to continue to operate the project in a run-of-river mode year round, maintain the current seasonal target reservoir elevations, release seasonal minimum flows ranging from 50 to 123 cfs as required in the current license, and continue its current ramping schedule for the target reservoir elevations.

#### WATER QUALITY CERTIFICATION

12. Under section 401(a)(1) of the Clean Water Act (CWA), the Commission may not issue a license authorizing the construction or operation of a hydroelectric project

<sup>&</sup>lt;sup>7</sup> Peaking operation has historically been used only when needed to meet regional energy needs. Temporary modifications to run-of-river operation may occur as needed during heavy rain events or snowmelt for flood control purposes.

<sup>&</sup>lt;sup>8</sup> 33 U.S.C. § 1341(a)(1) (2000).

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unless the state water quality certifying agency either has issued water quality certification (certification) for the project or has waived certification by failing to act on a request for certification within a reasonable period of time, not to exceed one year. Section 401(d) of the CWA provides that the certification shall become a condition of any federal license that authorizes construction or operation of the project.<sup>9</sup>

- 13. On June 13, 2005, Flambeau requested water quality certification from the Wisconsin DNR. Wisconsin DNR received Flambeau's request on June 16, 2005, and issued certification for the project on June 15, 2006. The certification contains 23 conditions, including requirements for run-of-river operation, seasonal target reservoir elevations as proposed by Flambeau, water level and quality monitoring, the collection of aquatic species information, woody debris management, exotic species monitoring, and erosion monitoring. The certification also requires plans for operation outage response, reservoir drawdown management, and hazardous substance spill prevention. Article 401 of this license requires the licensee to file these plans for Commission approval.
- 14. Staff disagrees with the following three certification conditions: collecting information on aquatic species found on the trashrack and in the tailrace; monitoring reservoir water quality; and monitoring the shoreline of the project reservoir and tailrace for erosion. Specifically: (1) no entrainment or impingement issues have been identified at the project; (2) the available water quality data indicate that state water quality standards are currently being met in the vicinity of the project and, given the run of river operation of the project along with a minimal impoundment fluctuation, there would be little operationally that could be done to improve water quality; and (3) there have been no erosion issues identified at the project, and bank erosion, which can be exacerbated by water level fluctuations, is minimized at projects with run-of-river operation and reservoir elevation limits, especially where recreational boating activity is not significant, as is the case here. These certification conditions, however, are mandatory, and are set forth in Appendix A of this order and incorporated into the license by Ordering Paragraph D.
- 15. Regarding the certification condition that requires a maximum reservoir elevation fluctuation range of  $\pm 0.3$  feet NGVD (Condition D); this license requires Interior's somewhat more stringent 10(j) recommendation to maintain a maximum reservoir elevation fluctuation range of  $\pm 0.25$  feet NGVD. As noted on page 14 of the EA, water level fluctuations can negatively affect fishes that inhabit and spawn in near-shore areas through stranding, disruption of spawning, and egg desiccation.

<sup>&</sup>lt;sup>9</sup> 33 U.S.C. § 1341(d) (2000).

<sup>&</sup>lt;sup>10</sup> Article 402

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16. Flambeau has not objected to either measure, and staff assumes that maintaining the impoundment within either range is equally feasible from an operation standpoint. As such, the more stringent fluctuation limit of  $\pm 0.25$  feet NGVD should provided a measure of additional protection for near-shore aquatic species at minimal operational cost.

#### COASTAL ZONE MANAGEMENT ACT

- 17. Under section 307(c)(3)(A) of the Costal Zone Management Act (CZMA),<sup>11</sup> the Commission cannot issue a license for a project within or affecting a state's costal zone unless the state CZMA agency concurs with the license applicant's certification of consistency with the state's CZMA program, or the agency's concurrence is conclusively presumed by its failure to act within 180 days of its receipt of the applicant's certification.
- 18. The Wisconsin Department of Administration stated that the Danbury Project would not be reviewed for consistency because it is not within a Wisconsin county that is contiguous with Lakes Michigan or Superior. Therefore, no consistency certification is required.

#### SECTION 18 FISHWAY PRESCRIPTIONS

19. Section 18 of the FPA<sup>13</sup> provides that the Commission shall require the construction, maintenance, and operation by a licensee of such fishways as may be prescribed by the Secretary of the Interior or the Secretary of Commerce, as appropriate. By letter filed April 3, 2006, Interior requested that the Commission reserve its authority to prescribe the construction, operation, and maintenance of fishways. Consistent with Commission policy, Article 407 of this license reserves the Commission's authority to require fishways that may be prescribed by Interior for the Danbury Project.

<sup>&</sup>lt;sup>11</sup> 16 U.S.C. § 1456(3)(A) (2000).

<sup>&</sup>lt;sup>12</sup> January 17, 2006 Email from Michael Friis, Program Manager and Non-point Source Pollution/Public Access Programs Coordinator, Wisconsin Coastal Program, placed in the public record on January 19, 2006.

<sup>&</sup>lt;sup>13</sup> 16 U.S.C. § 811 (2000).

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#### THREATENED AND ENDANGERED SPECIES

- 20. Section 7(a)(2) of the Endangered Species Act of 1973,<sup>14</sup> requires federal agencies to ensure their actions are not likely to jeopardize the continued existence of federally listed threatened and endangered species, or result in the destruction or adverse modification of their designated critical habitat.
- 21. The federally threatened bald eagle is known to occur at the project, and the federally endangered Karner blue butterfly and gray wolf are likely to occur in the vicinity of the project. The EA concluded that relicensing the project with a staff-recommended threatened and endangered species protection plan would not be likely to adversely affect the Karner blue butterfly, gray wolf, and bald eagle. The EA recommended the plan include, at a minimum, measures to monitor for and protect bald eagle and Karner blue butterfly habitat. The EA notes that managing project lands for these two species would also benefit any gray wolf at the project. In a letter filed June 28, 2006, Interior concurred with this determination. Article 408 of this license requires Flambeau to prepare and implement a threatened and endangered species protection plan as recommended by the EA.

#### NATIONAL HISTORIC PRESERVATION ACT ISSUES

- 22. Under section 106 of the National Historic Preservation Act (NHPA), <sup>15</sup> and its implementing regulations, <sup>16</sup> federal agencies must take into account the effect of any proposed undertaking on properties listed or eligible for listing in the National Register (defined as historic properties) and to afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on the undertaking.
- 23. To satisfy these responsibilities, on December 30, 1993, the Commission executed a Programmatic Agreement (PA) with the Wisconsin State Historic Preservation Officer, the Michigan State Historic Preservation Officer, and the Advisory Council on Historic Preservation for managing historic properties that may be affected by relicensing projects in the state of Wisconsin and adjacent portions of Michigan. Execution of the PA demonstrates the Commission's compliance with section 106 of NHPA.

<sup>&</sup>lt;sup>14</sup> 16 U.S.C. § 1536(a) (2000).

<sup>&</sup>lt;sup>15</sup> 16 U.S.C. § 470 et seq.(2000).

<sup>&</sup>lt;sup>16</sup> 36 C.F.R. Part 800 (2005).

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- 24. The PA requires the licensee to prepare and implement a historic resources management plan (HRMP) for the term of any subsequent license issued for the project. Article 411 of this license requires Flambeau to implement the PA and file its HRMP with the Commission within one year of license issuance.
- 25. In order to develop the HRMP, however, Flambeau needs to complete the appropriate project-specific surveys. In its letter filed July 17, 2006, the Wisconsin Historical Society, serving as the State Historic Preservation Officer (SHPO), correctly notes that this survey work has not been completed, and that Flambeau needs to complete an archeological survey of the impoundment area and an architectural/historical survey. In its application, Flambeau proposes to conduct a Phase 1 archive and literature search for cultural, historical, and archaeological data pertaining to the project location, and Phase II and III procedures if necessary. These surveys must be done in consultation with the SHPO. After the SHPO has reviewed and commented on the results of the surveys, Flambeau must file the results, along with the SHPO's comments, with the Commission. Thus, Article 410 of this license requires Flambeau to conduct and report on the necessary archeological and architectural/historical surveys within 6 months of license issuance.
- 26. In the interim, the PA requires that Flambeau comply with 36 C.F.R. Part 800 sections 4-6, with respect to any proposed ground-disturbing activities that occur prior to HRMP approval. These sections address the identification of historic properties, and the assessment and resolution of adverse effects, all through consultation with the SHPO.

## RECOMMENDATIONS OF FEDERAL AND STATE FISH AND WILDLIFE AGENCIES

- 27. Section 10(j)(1) of the FPA<sup>17</sup> requires the Commission, when issuing a license, to include conditions based on recommendations by federal and state fish and wildlife agencies submitted pursuant to the Fish and Wildlife Coordination Act, <sup>18</sup> to "adequately and equitably protect, mitigate damages to, and enhance fish and wildlife (including related spawning grounds and habitat)" affected by the project.
- 28. A single section 10(j) recommendation was timely filed by Interior on April 3, 2006. Interior recommends that Flambeau operate the project in a run-of-river mode with a  $\pm 0.25$ -foot variance in pool elevation so that flows measured downstream of the project

<sup>&</sup>lt;sup>17</sup> 16 U.S.C. § 803(j)(1) (2000).

<sup>&</sup>lt;sup>18</sup> 16 U.S.C. §§ 661, et seq (2000).

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approximate inflow into the reservoir. The certification (Appendix A) requires the project to be operated in a run-of-river mode and Article 402 requires the project impoundment to be maintained within a  $\pm$  0.25-foot range.

#### **OTHER ISSUES**

#### Ramping Schedule

- 29. Flambeau proposes to continue to follow a ramping schedule in the fall and spring for maintaining a seasonal target reservoir elevation of 929.21 feet NGVD from April through October, and 928.11 feet NGVD from November through March. Flambeau states that the lower reservoir elevation of 928.11 feet NGVD from November through March, as required in the water quality certification (Condition D), is to help maintain a seasonal target water elevation in the upstream Little Yellow Lake and Yellow Lakes. The ramping schedule consists of a drawdown period to lower the elevation beginning on November 1 and ending by November 20 of each year, and a spring raising of the water elevation beginning after ice-out and ending by one week after ice-out, or April 1, of each year, whichever is later.
- 30. The proposed ramping should provide ample opportunity for organisms in near-shore areas to avoid stranding during the fall drawdown, and the timing of the spring increase in reservoir elevation would ensure that the rise in reservoir levels is completed prior to the critical spawning season of fish species, which begins in mid-April. Accordingly, Article 403 of this license requires this ramping schedule for maintaining seasonal target reservoir elevations.

#### Operation Compliance Monitoring Plan

- 31. Flambeau proposes to continue to operate the project manually, with operators increasing or decreasing flows through the turbines and/or over the spillway to ensure the target reservoir elevation is maintained.
- 32. The water quality certification requires Flambeau to demonstrate compliance with run-of-river operation by installing and maintaining automatic water level sensors that continuously measure and record headwater and tailwater elevations, and by maintaining staff gauges that are visible to the public in the impoundment and tailwaters (Condition E). The certification also requires a three-year test period to determine Flambeau's ability to maintain compliance with the certification's operational conditions (Condition T). After the 3-year test period, if the Wisconsin DNR determines that Flambeau has not been able to document compliance, and Flambeau has not proposed an acceptable alternative to monitor compliance, the certification requires that Flambeau consult with

- the U.S. Geological Survey (USGS) to install and maintain two USGS-type gauges in the Yellow River, one upstream of the project reservoir and one in the project tailrace (Condition E), and to keep the gauges in serviceable condition (Condition G).
- 33. Although the monitoring measures that the certification requires would help ensure compliance with the required mode of project operation, the EA found that additional measures would be more thorough in ensuring compliance with the operational requirements. These measures include specifying of the location of the headwater and tailwater sensors and staff gauges and the frequency of required maintenance or calibration of this equipment, as well as a procedure for releasing flows during emergency shutdowns. Accordingly, Article 404 requires Flambeau to file an operation compliance monitoring plan that includes this additional detail.

#### <u>Upstream Water Level Maintenance Consultation</u>

- 34. The project impoundment extends approximately 5.6 miles upstream from the dam. Situated upstream of the project impoundment is the 255-acre Little Yellow Lake which is located approximately 1.6 miles downstream of the 2,294-acre Yellow Lake. Little Yellow Lake and Yellow Lake are separated by a natural restriction approximately 65 feet across, and spanned by the Ulrich Bridge. During high flow periods, this natural restriction reduces downstream river flow between Yellow Lake and Little Yellow Lake. The excess flow is then stored in Yellow Lake resulting in an increase in water surface level. As a result, residents along the shoreline of Yellow and Little Yellow Lakes, and the projects impoundment, have experienced intermittent problems with water level fluctuations stemming from large rain events in which shoreline property is flooded due to the inability of the lakes to convey water downstream at the same rate that they are receiving inflow from run-off.
- 35. In November, 2002 the Commission's Chicago regional office issued an environmental report in response to an allegation of noncompliance related to water level fluctuations filed by residents of Little Yellow Lake and Yellow Lake as well as the Wisconsin DNR. The report concluded that the narrows at the Ulrich Bridge and other sites along the Yellow River may be the cause of the fluctuations and suggested that the licensee conduct a hydraulic study. In 2003, due to a recurrence of the water level fluctuation issue, Flambeau and the Yellow Lakes and River Association (YLRA) contracted Polaris Group, Inc. to conduct a hydraulic modeling study of the Yellow River system between Yellow and Little Yellow Lakes and the downstream Danbury Project to determine the cause of the fluctuations and identify potential solutions.

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- 36. The results of the hydraulic study<sup>19</sup> showed that the water level fluctuations in Little Yellow Lake and Yellow Lake are due to the reduced flow capacity in the Yellow River caused by the narrows between the two lakes as well as seasonal weed growth in the Danbury project impoundment. Although the study concluded that the Danbury Project can do little operationally to alleviate upstream water level fluctuations, some of the options considered for improving the carrying capacity of the Yellow River included dredging of sediment, removing weed growth in the middle section of the project impoundment, and raising the water level at the dam during low flow periods.
- 37. In its license application, Flambeau proposes to form a committee comprised of representatives of the YLRA and Wisconsin DNR that would meet twice a year, once in the fall and once in the spring, to review operating procedures for the Danbury Project and recommend measures to help maintain target water level elevations upstream of the project.
- 38. Flambeau's proposal to form an operating committee will allow for the continued evaluation of the upstream water level fluctuation issue and the discussion of any changes in project operations, such as alternative flow releases, target reservoir elevations, or dredging or weed removal in the impoundment, that may be necessary to maintain upstream target water level elevations. Accordingly, Article 405 of this license requires Flambeau to consult with YLRA and Wisconsin DNR twice a year regarding upstream water level maintenance and to report on such consultation, including a summary of participant comments and a discussion of any measures recommended for the Danbury Project to help lessen upstream water level fluctuations.

#### Woody Debris Management Plan

- 39. Certification Condition I requires that Flambeau pass woody debris downstream of the project in a reasonably safe manner, but does not specify a method or frequency for this action.
- 40. The EA notes that passing woody debris can enhance aquatic habitat downstream of projects and recommends a woody debris management plan that specifies the frequency and methods used to pass the woody debris to ensure that the debris is handled in a safe and effective manner. Accordingly, Article 406 of this license requires the preparation and filing of a woody debris management plan.

<sup>&</sup>lt;sup>19</sup> See exhibit E-2 of the license application, Yellow River Hydraulic Study, February 2004.

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#### Canoe Portage

41. The EA notes that the project provides a canoe portage that extends from the power canal upstream of the Plant 2 forebay, down into the tailrace of Plant 2. This is the only available portage for canoeists traveling downstream past the project and it is important that it be maintained and available for public use. Article 203 requires the revised project boundary to include the canoe portage to ensure the facility is maintained over the license term, and Article 409 requires the continued maintenance of the portage and appropriate signage.

#### **ADMINISTRATIVE CONDITIONS**

#### A. Annual Charges

42. The Commission collects annual charges from licensees for the administration of the FPA. Article 201 of this license addresses the collection of funds for administration of the FPA. Under the regulations currently in effect, projects such as this with authorized installed capacity of less than or equal to 1,500 kW will not be assessed an annual charge. Since the authorized installed capacity of the Danbury Project is 1,076 kW, no annual charges will be assessed.

#### **B.** Exhibit F Drawings

43. The Commission requires licensees to file sets of approved project drawings on microfilm and in electronic file format. Article 202 of this license requires the filing of these drawings.

### C. Exhibit G Drawing

44. On January 10, 2005, Flambeau filed, in response to a staff additional information request, a revised exhibit G drawing. The exhibit G-1drawing shows the project boundary with three latitude and longitude control points, and is stamped by a Registered Land Surveyor as required. However, the exhibit G-1 drawing does not show within the project boundary the entire length of the 2,350-foot transmission line from Plant 1, nor does it show the 150-foot-long transmission line from Plant 2 needed to deliver project power to the interconnected grid. Exhibit G-1 also labels the two project transmission lines which are connected to the sub-station as "Transmission Lines Owned By Northwestern Wisconsin Electric Company."

<sup>&</sup>lt;sup>20</sup> The original license for the project includes the two 2.4-kilovolt transmission lines connecting Plant 1 and Plant 2 to the interconnected grid. 39 FERC ¶ 62,294.

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- 45. The Commission's test for a primary line is that the line is used solely to transmit power from the licensed project to a load center, and that without the line there would be no way to transmit all the project power to market. Under this test, the line leading from a project ceases to be a primary line at the point it is no longer used solely to transmit power from the project to the interconnected grid. Whether the primary transmission line is owned by someone other than the licensee does not eliminate this requirement. Consequently, I am including the transmission lines in this license and requiring Flambeau, in Article 203 of this license, to file an appropriately revised exhibit G. In addition, standard license Article 5 requires Flambeau to obtain sufficient rights in the line to operate and maintain it in accordance with the license.
- 46. In addition, the exhibit G drawing does not show the project's canoe portage. Article 203 therefore requires that the exhibit G drawing include the canoe portage.

#### D. Use and Occupancy of Project Lands and Waters

47. Requiring a licensee to obtain prior Commission approval for every use or occupancy of project land would be unduly burdensome. Therefore, Article 412 of this license allows the licensee to grant permission, without prior Commission approval, for the use and occupancy of project lands for such minor activities as landscape planting. Such uses must be consistent with the purposes of protecting and enhancing the scenic, recreational, and environmental values of the project.

#### STATE AND FEDERAL COMPREHENSIVE PLANS

48. Section 10(a)(2)(A) of the FPA,<sup>22</sup> requires the Commission to consider the extent to which a project is consistent with federal or state comprehensive plans for improving, developing, or conserving a waterway or waterways affected by the project.<sup>23</sup> Staff identified and reviewed 11 comprehensive plans that are relevant to this project.<sup>24</sup> No conflicts were found.

<sup>&</sup>lt;sup>21</sup> See, e.g., Vermont Electric Generation & Transmission Cooperative, Inc. and North Hartland, LLC, 104 FERC ¶ 61,151 at P 8 (2003) and the orders cited there.

<sup>&</sup>lt;sup>22</sup> 16 U.S.C. § 803(a)(2)(A) (2000).

<sup>&</sup>lt;sup>23</sup> Comprehensive plans for this purpose are defined at 18 C.F.R. § 2.19 (2005).

<sup>&</sup>lt;sup>24</sup> The list of applicable plans can be found in section IX of the EA for the project.

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#### APPLICANT'S PLANS AND CAPABILITIES

- 49. Section 10(A)(2)(c) of the FPA<sup>25</sup> requires the Commission to consider the electricity consumption improvement program of the applicant, including its plans, performance, and capabilities for encouraging or assisting its customers to conserve electricity cost-effectively, taking into account the published policies, restrictions, and requirements of state regulatory authorities. Flambeau sells power to Northwestern Wisconsin Power Electric Company (Northwestern), a utility. Northwestern promotes conservation of electricity use by its customers.
- 50. Commission staff concludes that given the limits of its ability to influence users of the electricity generated by the project, Flambeau complies with section 10(A)(2)(c) of the FPA. I accept staff's finding.

#### NEED FOR POWER

51. The Danbury Project is located in the Midwest Reliability Organization region of the North American Electric Reliability Council (NERC). According to NERC, summer peak demand in the region is expected to increase at an average rate of 2 percent per year during the period from 2005-2014. Staff concludes that the project's power, displacement of nonrenewable fossil-fired generation, and contribution to the region's diversified generation mix, will help meet the need for power in the region.

#### SAFE MANAGEMENT, OPERATION, AND MAINTENANCE

52. Staff has reviewed Flambeau's management, operation, and maintenance of the Danbury Project and the project's operation reports and concludes that the dam and other project works are safe and that there is no reason to believe that Flambeau cannot continue to safely manage, operate, and maintain these facilities under a subsequent license.

#### PROJECT ECONOMICS

53. In determining whether a proposed project will be best adapted to a comprehensive plan for developing a waterway for beneficial public purposes, the Commission considers a number of public interest factors, including the economic benefit of the project power. Under the Commission's approach to evaluating the economics of hydropower projects, as articulated in *Mead Corp.*, <sup>26</sup> the Commission uses current costs

(continued)

<sup>&</sup>lt;sup>25</sup> 16 U.S.C. § 803(A)(2)(c) (2000).

<sup>&</sup>lt;sup>26</sup>72 FERC ¶ 61,027 (1995).

to compare the costs of the project and likely alternative power with no forecasts concerning potential future inflation, escalation, or deflation beyond the license issuance date. The basic purpose of the Commission's economic analysis is to provide a general estimate of the potential power benefits and the costs of a project, and of reasonable alternatives to project power. The estimate helps to support an informed decision concerning what is in the public interest with respect to a proposed license.

- 54. In applying this analysis to the Danbury Project, we have considered two options: Flambeau's proposal and the project as licensed herein. As proposed by Flambeau, the levelized annual cost of operating the project would be about \$143,320, or \$37.28/MWh. The annual power value, for the estimated annual generation of 3,844 MWh, would be \$132,500, or \$34.47/MWh. To determine whether the proposed project is currently economically beneficial, staff subtracts the project's cost from the value of the power the project produces. Therefore, in the first year of operation, the project would cost \$10,810, or \$2.81/MWh more than the likely alternative cost of power.
- 55. If licensed herein with mandatory conditions and staff measures, <sup>28</sup> the project would produce an average of 3,844 MWh of energy annually at a levelized cost of about \$148,700, or \$38.69/MWh. The annual value of the project's power would be about \$132,500, or \$34.47/MWh. Therefore, in the first year of operation, the project would cost \$16,200, or \$4.22/MWh more than currently available alternative power.<sup>29</sup>
- 56. In considering public interest factors, the Commission takes into account that hydroelectric projects offer unique operational benefits to the electric utility system (ancillary service benefits). These benefits include their capability to provide an almost instantaneous load-following response to dampen voltage and frequency instability on the transmission system, system-power-factor-correction through condensing operations, and a source of power available to help in quickly putting fossil-fuel based generating stations back on line following a major utility system or regional blackout.

<sup>&</sup>lt;sup>27</sup> The alternative power cost of \$34.47/MWh is based on information posted on the Midwest Independent System Operator web site at <a href="http://www.midwestiso.org">http://www.midwestiso.org</a>.

<sup>&</sup>lt;sup>28</sup> The staff environmental measures include plans for operation compliance monitoring, woody debris management, and threatened and endangered species protection.

<sup>&</sup>lt;sup>29</sup> Project economics have been revised to include the additional cost of the certification conditions.

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- 57. Although our analysis shows that the project as licensed herein would cost more to operate than our estimated cost of alternative power, it is the applicant who must decide whether to accept this license and any financial risk that entails.
- 58. Although staff does not explicitly account for the effects inflation may have on the future cost of electricity, the fact that hydropower generation is relatively insensitive to inflation compared to fossil-fueled generators is an important economic consideration for power producers and the consumers they serve. This is one reason project economics is only one of the many public interest factors the Commission considers in determining whether or not, and under what conditions, to issue a license.

#### COMPREHENSIVE DEVELOPMENT

- 59. Sections 4(e) and 10(a)(1) of the FPA,<sup>30</sup> require the Commission to give equal consideration to power development purposes and to the purposes of energy conservation, the protection, mitigation of damage to, and enhancement of fish and wildlife, the protection of recreational opportunities, and the preservation of other aspects of environmental quality. Any license issued shall be such as in the Commission's judgment will be best adapted to a comprehensive plan for improving or developing a waterway or waterways for all beneficial public uses. The decision to license this project, and the terms and conditions included herein, reflect such consideration.
- 60. The EA for the Danbury Project contains background information, analysis of impacts, and support for related license articles. I conclude, based on the record of this proceeding, including the EA and comments thereon, that licensing the Danbury Project as described in this order would not constitute a major federal action significantly affecting the quality of the human environment. The project will be safe if operated and maintained in accordance with the requirements of this license.
- 61. Based on my independent review and evaluation of the project, recommendations from resource agencies, and the no-action alternative, as documented in the EA, I have selected the proposed Danbury Project, with the staff-recommended measures including the certification conditions because they are mandatory, and find that it is best adapted to a comprehensive plan for improving or developing the Yellow River.
- 62. I selected this alternative because: (1) issuance of the subsequent license will serve to maintain a beneficial and dependable source of electric energy; (2) the required environmental measures will protect fish and wildlife resources, water quality,

<sup>&</sup>lt;sup>30</sup> 16 U.S.C. § 797(e) and 803(a)(1).

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recreational resources, and historic properties; (3) the 1,076 kW of electric energy generated from this renewable resource would continue to offset the use of fossil-fueled generating plants, thereby conserving nonrenewable resources and reducing atmospheric pollution.

#### LICENSE TERM

63. The Commission's general policy is to establish 30-year terms for projects with little or no redevelopment, new construction, or new capacity, or environmental mitigation and enhancement measures; 40-year terms for projects with a moderate amount of such activities; and 50-year terms for projects with extensive measures. This license authorizes no new construction or new capacity, and only a minor amount of new environmental measures. Consequently, a 30-year license term for the Danbury Project is appropriate. Because the term of the current license does not expire until June 9, 2007, this license order is not effective until June 10, 2007.

#### *The Director orders:*

- (A) This license is issued to Flambeau Hydro, LLC (licensee), for a period of 30 years, effective June 10, 2007, to operate and maintain the Danbury Project. This license is subject to the terms and conditions of the FPA, which is incorporated by reference as part of this license, and subject to the regulations the Commission issues under the provisions of the FPA.
  - (B) The project consists of:
- (1) All lands, to the extent of the licensee's interests in those lands, enclosed by the project boundary shown by the exhibit G drawing filed on February 6, 2006:

Exhibit G Drawing	FERC No. 9184-	<u>Description</u>
1	1001	Project Boundary Map

(2) Project works consisting of: (1) a 30-foot-high gravity-type earth dam with a 48-foot-wide, three-bay concrete spillway section equipped with six steel slide gates; (2) a 300-foot-long earthen dike that connects to the north side of the spillway; (3) a 255-acre reservoir; (4) a forebay structure with two steel slide gates; (5) a powerhouse (Plant 1)

<sup>&</sup>lt;sup>31</sup> For this reason, the various deadlines in the license articles are measured from the June 10, 2007 effective date, rather than from the order issuance date.

containing two generating units with a total installed capacity of 476 kW; (6) two 26-foot-long, 5.75-foot-diameter penstocks leading to Plant 1; (7) a 2,350-foot-long, 2.4-kV transmission line; (8) a power canal headworks structure with stoplogs; (9) a 53-foot-wide, 2,500-foot-long power canal; (10) a powerhouse (Plant 2) containing one generating unit with a capacity of 600 kW; (11) a 95-foot-long, 8-foot-diameter penstock leading to Plant 2; (12) a 200-foot-long tailrace; (13) a 150-foot-long, 2.4-kV transmission line; and (14) appurtenant facilities.

The project works generally described above are more specifically shown and described by those portions of exhibits A and F shown below:

Exhibit A: Pages A-1 and A-9 filed on June 10, 2005.

The following exhibit F drawings filed on June 10, 2005:

Exhibit F Drawings	FERC No. 9184-	<u>Description</u>
1	1002	Plant 1 Powerhouse & Spillway 1 Plan
2	1003	Plant 1 Powerhouse & Spillway Elevation
3	1004	Plant 1 Section "A-A"
4	1005	Plant 1 Sections "B-B" & "C-C"
5	1006	Plant 2 Forebay & Powerhouse Elevations
6	1007	Plant 2 Forebay, Penstock, & Powerhouse Plans
7	1008	Plant 2 Forebay, Penstock, & Powerhouse Section E-E

- (3) All of the structures, fixtures, equipment or facilities used to operate or maintain the project and located within the project boundary, all portable property that may be employed in connection with the project, and all riparian or other rights that are necessary or appropriate in the operation or maintenance of the project.
- (C) The exhibits A and F described above are approved and made part of the license. The exhibit G drawing filed on February 6, 2006, does not conform to Commission regulations and is not approved.

- (D) This license is subject to the conditions submitted by the Wisconsin Department of Natural Resources under section 401(a)(1) of the Clean Water Act, 33 U.S.C. § 1431(a)(1), as those conditions are set forth in appendix A to this order.
- (E) The following sections of the FPA are waived and excluded from the license for this minor project:
- 4(b), except the second sentence; 4(e), insofar as it relates to approval of plans by the Chief of Engineers and the Secretary of the Army; 6, insofar as it relates to public notice and to the acceptance and expression in the license of terms and conditions of the FPA that are waived here; 10(c), insofar as it relates to depreciation reserves; 10(d); 10(f); and 14, except insofar as the power of condemnation is reserved; 15; 16; 20; and 22.
- (F) This license is subject to the articles set forth in Form L-12 (October 1975), entitled "Terms and Conditions of License for Constructed Minor Project Affecting the Interests of Interstate or Foreign Commerce" (*see* 54 FPC 1817), and the following additional articles:
- Article 201. Administrative Annual Charges. The licensee shall pay the United States annual charges, as determined in accordance with the provisions of the Commission's regulations in effect from time to time, for the purpose of reimbursing the United States for the cost of administration of Part I of the Federal Power Act. The authorized installed capacity for that purpose is 1,076 kilowatts. Under the regulations currently in effect, projects with authorized installed capacity of less than or equal to 1,500 kilowatts will not be assessed annual charges.
- Article 202. Exhibit Drawings. Within 45 days of the effective date of this license, the licensee shall file the approved exhibit F drawings in aperture card and electronic file formats.
- a) Three sets of the approved exhibit drawings shall be reproduced on silver or gelatin 35mm microfilm. All microfilm shall be mounted on type D (3-1/4" X 7-3/8") aperture cards. Prior to microfilming, the FERC Project Drawing Number (*i.e.*, P-1234-### through P-1234-###) shall be shown in the margin below the title block of the approved drawing. After mounting, the FERC Drawing Number shall be typed on the upper right corner of each aperture card. Additionally, the Project Number, FERC Exhibit (*i.e.*, F-1, etc.), Drawing Title, and date of this license shall be typed on the upper left corner of each aperture card.

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Two of the sets of aperture cards shall be filed with the Secretary of the Commission, ATTN: OEP/DHAC. The third set shall be filed with the Commission's Division of Dam Safety and Inspections Chicago Regional Office.

b) The licensee shall file two separate sets of exhibit drawings in electronic raster format with the Secretary of the Commission, ATTN: OEP/DHAC. A third set shall be filed with the Commission's Division of Dam Safety and Inspections Chicago Regional Office. Exhibit F drawings must be identified as critical energy infrastructure information (CEII) material under 18 CFR §388.113(c). Each drawing must be a separate electronic file, and the file name shall include: FERC Project-Drawing Number, FERC Exhibit, Drawing Title, date of this license, and file extension in the following format [P-1234-###, F-1, Description, MM-DD-YYYYY.TIF]. Electronic drawings shall meet the following format specification:

IMAGERY - black & white raster file

FILE TYPE – Tagged Image File Format, (TIFF) CCITT Group 4

RESOLUTION – 300 dpi desired, (200 dpi min)

DRAWING SIZE FORMAT – 24" X 36" (min), 28" X 40" (max)

FILE SIZE – less than 1 MB desired

Article 203. Exhibit G Drawings. Within 60 days of the effective date of this license, the licensee shall file, for Commission approval: (1) a revised exhibit G-1 project boundary drawing enclosing the entire length of the transmission line from Plant 1 and Plant 2 to the interconnected grid as well as the project canoe portage; and (2) the revised exhibit G-1 drawing shall not include the label "Transmission Lines Owned By Northwestern Wisconsin Electric Company." The exhibit G-1 drawing shall be filed pursuant to 18 CFR sections 4.39 and 4.41.

<u>Article 401</u>. Commission Approval and Reporting.

(a) Requirement to File Plans for Commission Approval

The Wisconsin Department of Natural Resources (Wisconsin DNR) water quality certification filed on August 10, 2006 (issued June 15, 2006) and attached to this order as Appendix A requires the licensee to develop certain plans without reference to prior Commission approval. Each such plan shall also be submitted to the Commission for approval. These plans are listed below.

Certification Condition No. (Appendix A of this license order)	Plan Name	Due Date
F	Outage response plan	Within 30 days of the effective
		date of the license
J	Reservoir drawdown	60 days in advance of all non-
	management plan	emergency reservoir drawdowns
		that will begin after the June 10,
		2007 effective date of this license
Q	Hazardous substance spill	Within 5 months of the effective
	prevention, control, and	date of the license
	countermeasures plan	

The licensee shall submit to the Commission documentation of its consultation, copies of comments and recommendations made in connection with the plan, and a description of how the plan accommodates the comments and recommendations. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information. The Commission reserves the right to make changes to any plan submitted. Upon Commission approval the plan becomes a requirement of the license, and the licensee shall implement the plan or changes in project operations or facilities, including any changes required by the Commission.

#### (b) Requirement to File Documentation of Completion

The licensee shall file with the Commission the following reports or notifications required by the Certification according to the schedule set forth below.

Certification Condition No. (Appendix A of this license order)	Report Name	Due Date
Н	Annual summary report on entrainment and impingement	By December 31 of each year beginning December 31, 2007
M	Annual exotic species monitoring report	By December 31 of each year beginning December 31, 2007

Certification Condition No. (Appendix A of this license order)	Report Name	Due Date
N	Erosion monitoring report	By December 31 of each inspection year (3-year intervals) beginning December 31, 2007
T	Annual operation compliance	Annually beginning June 10,
	report	2007

Article 402. Target Reservoir Elevations. The licensee shall maintain a target reservoir elevation of 929.21  $\pm$  0.25 feet NGVD from April through October, and 928.11  $\pm$  0.25 feet NGVD from November through March of each year.

The target reservoir elevations may be temporarily modified if required by operating emergencies beyond the control of the licensee, and for short periods for project maintenance purposes, upon mutual agreement between the licensee, the Wisconsin Department of Natural Resources, and the U.S. Fish and Wildlife Service. If the target reservoir elevations are so modified, the licensee shall notify the Commission as soon as possible, but no later than 10 days after each such incident.

Article 403. Ramping Schedule. The licensee shall adhere to a ramping schedule for maintaining the seasonal target reservoir elevations for the protection of aquatic and recreational resources in the impoundment and downstream of the project in the Yellow River. The licensee shall begin ramping down to a target reservoir elevation of 928.11 feet NGVD by November 1 of each year, completing ramping down by November 20 of each year. The licensee shall begin ramping up to a target reservoir elevation of 929.21 feet NGVD in the spring after ice out of each year, completing ramping up by one week after ice out or April 1 of each year, whichever is later.

The ramping schedule may be temporarily modified if required by operating emergencies beyond the control of the licensee, and for short periods for project maintenance purposes, upon mutual agreement between the licensee, the Wisconsin Department of Natural Resources, and the U.S. Fish and Wildlife Service. If the ramping schedule is so modified, the licensee shall notify the Commission as soon as possible, but no later than 10 days after each such incident.

Article 404. Operation Compliance Monitoring Plan. Within six months of the effective date of this license, the licensee shall file for Commission approval an operation compliance monitoring plan that has been prepared in consultation with Wisconsin

Department of Natural Resources (Wisconsin DNR) and the U.S. Fish and Wildlife Service (FWS). The plan shall include how compliance with the run-of-river operation mode, required by water quality certification Condition C in appendix A of this order, will be documented by the licensee, including measuring inflows and outflows from the project and how this information will be provided to the resource agencies, if requested.

The operation compliance monitoring plan shall include provisions to monitor: (1) reservoir water surface elevations; and (2) all continuous flows according to certification conditions C and D in appendix A of this order. The plan shall detail the mechanisms and structures that would be used, including any periodic maintenance and calibration necessary for any installed devices or gauges, to ensure that the devices work properly, and shall specify how often reservoir and continuous flow releases will be recorded and reported to the Wisconsin DNR. The plan shall specify: (1) the location of the headwater and tailwater sensors; (2) the frequency of required maintenance or calibration of these sensors; (3) the frequency of reporting of water levels to Wisconsin DNR and FWS; and (4) procedures for releasing flows during emergency shutdowns.

The plan shall also include documentation of agency consultation, including copies of agency comments and recommendations on the plan, and specific descriptions of how the agencies' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for agencies to comment and make recommendations, before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the plan. The operation compliance monitoring plan shall not be implemented until the licensee is notified by the Commission that the plan is approved. Upon Commission approval, the licensee shall implement the plan, including any changes required by the Commission.

Article 405. Upstream Water Level Maintenance Consultation. The licensee shall consult with the Yellow Lake and River Association and Wisconsin Department of Natural Resources twice a year, once in the fall and once in the spring, to review operating procedures for the Danbury Project and discuss measures at the project that could help maintain target water level elevations upstream. The licensee shall file a report with the Commission on the consultation meetings by July 31 and December 31 of each year, beginning December 31, 2007. The report must include a summary of participant comments and discuss any measures recommended at the Danbury Project to help lessen upstream water level fluctuations.

If the results of the meetings indicate that changes in project operations, such as alternative flow releases, target reservoir elevations, or dredging or weed removal in the

impoundment, are necessary to maintain upstream target water level elevations, the Commission may direct the licensee to modify operations accordingly.

Article 406. Woody Debris Passage Plan. Within six months of the effective date of this license, the licensee shall file for Commission approval, a plan to pass woody debris according to water quality certification Condition I in Appendix A of this order. The plan shall be prepared after consultation with the Wisconsin Department of Natural Resources and specify the frequency and methods to be used for woody debris passage.

The licensee shall include with the plan documentation of agency consultation, including copies of agency comments and recommendations on the draft plan, and specific descriptions of how the agency's comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agency to comment and to make recommendations, before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the plan. The woody debris passage plan shall not be implemented until the licensee is notified that the plan is approved. Upon approval, the licensee shall implement the plan according to the approved schedule, including any changes required by the Commission.

Article 407. Reservation of Authority to Prescribe Fishways. Authority is reserved to the Commission to require the licensee to construct, operate, and maintain, or to provide the construction, operation, and maintenance of such fishways as may be prescribed by the Secretary of Interior pursuant to section 18 of the Federal Power Act.

Article 408. Threatened and Endangered Species Protection Plan. Within six months of the effective date of this license, the licensee shall file for Commission approval a plan to protect threatened and endangered species habitat at the project. The plan shall be prepared after consultation with the Wisconsin Department of Natural Resources and the U.S. Fish and Wildlife Service.

At a minimum, the plan shall include:

- (1) measures for protecting bald eagle, Karner blue butterfly, and other federally listed threatened and endangered species and their habitat;
- (2) guidelines for managing vegetation, habitat, ground-disturbing activities, and maintenance activities consistent with certification Condition R.

The plan shall also include documentation of agency consultation, including copies of agency comments and recommendations on the plan, and specific descriptions of how the agencies' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for agencies to comment and make recommendations, before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the plan. The threatened and endangered species plan shall not be implemented until the licensee is notified that the plan is approved. Upon approval, the licensee shall implement the plan according to the approved schedule, including any changes required by the Commission.

Article 409. Canoe Portage. The licensee shall maintain the existing canoe portage at the project and provide signage directing the public to the portage facility. Within 3 months of the effective date of this license, the licensee shall file an as-built drawing of the canoe portage and photographs of the portage signage.

Article 410. Historic Resource Surveys. Within 6 months of the effective date of this license, the licensee, in consultation with the State Historic Preservation Officer (SHPO), shall conduct an archeological survey of the project area and an architectural/historical survey as defined in sections I.A-C of the Programmatic Agreement referenced in Article 411 of this license. For compliance purposes the survey results and SHPO's comments shall be filed with the Commission for approval.

<u>Article 411</u>. Programmatic Agreement and Historic Resources Management Plan. The licensee shall implement the "Programmatic Agreement Among the Federal Energy Regulatory Commission, the Advisory Council on Historic Preservation, and the State of Wisconsin, State Historic Preservation Officer, and the State of Michigan, State Historic Preservation Officer, For Managing Historic Properties That May Be Affected By New And Amended Licenses Issuing For The Continued Operation Of Existing Hydroelectric Projects in the State of Wisconsin and Adjacent Portions Of The State of Michigan", executed on December 30, 1993. Pursuant to the requirements of this Programmatic Agreement, the licensee shall file for Commission approval, a historic resources management plan (HRMP) for the project within one year of the effective date of this license. The Commission reserves the authority to require changes to the HRMP at any time during the term of the license. If the Programmatic Agreement is terminated prior to Commission approval of the HRMP, the licensee shall obtain approval from the Commission and the Wisconsin State Historic Preservation Officer, before engaging in any ground-disturbing activities or taking any other action that may affect any historic properties within the project's area of potential effect.

Article 412. Use and Occupancy. (a) In accordance with the provisions of this article, the licensee shall have the authority to grant permission for certain types of use and occupancy of project lands and waters and to convey certain interests in project lands and waters for certain types of use and occupancy, without prior Commission approval. The licensee may exercise the authority only if the proposed use and occupancy is consistent with the purposes of protecting and enhancing the scenic, recreational, and other environmental values of the project. For those purposes, the licensee shall also have continuing responsibility to supervise and control the use and occupancies, for which it grants permission, and to monitor the use of, and ensure compliance with the covenants of the instrument of conveyance for, any interests that it has conveyed, under this article.

If a permitted use and occupancy violates any condition of this article or any other condition imposed by the licensee for protection and enhancement of the project's scenic, recreational, or other environmental values, or if a covenant of a conveyance made under the authority of this article is violated, the licensee shall take any lawful action necessary to correct the violation. For a permitted use or occupancy, such action includes, as necessary, canceling the permission to use and occupy the project lands and waters and requiring the removal of any non-complying structures and facilities.

(b) The types of use and occupancy of project lands and water for which the licensee may grant permission without prior Commission approval are: (1) landscape plantings; (2) non-commercial piers, landings, boat docks, or similar structures and facilities that can accommodate no more than 10 watercraft at a time and where said facility is intended to serve single-family type dwellings; (3) embankments, bulkheads, retaining walls, or similar structures for erosion control to protect the existing shoreline; and (4) food plots and other wildlife enhancement.

To the extent feasible and desirable to protect and enhance the project's scenic, recreational, and other environmental values, the licensee shall require multiple use and occupancy of facilities for access to project lands or waters. The licensee shall also ensure, to the satisfaction of the Commission's authorized representative, the use and occupancies for which it grants permission are maintained in good repair and comply with applicable state and local health and safety requirements.

Before granting permission for construction of bulkheads or retaining walls, the licensee shall: (1) inspect the site of the proposed construction; (2) consider whether the planting of vegetation or the use of riprap would be adequate to control erosion at the site; and (3) determine that the proposed construction is needed and would not change the basic contour of the reservoir shoreline.

To implement this paragraph (b), the licensee may, among other things, establish a program for issuing permits for the specified types of use and occupancy of project lands and waters, which may be subject to the payment of a reasonable fee to cover the licensee's costs of administering the permit program. The Commission reserves the right to require the licensee to file a description of its standards, guidelines, and procedures for implementing this paragraph (b) and to require modification of those standards, guidelines, or procedures.

(c) The licensee may convey easements or rights-of-way across, or leases of, project lands for: (1) replacement, expansion, realignment, or maintenance of bridges or roads where all necessary state and federal approvals have been obtained; (2) storm drains and water mains; (3) sewers that do not discharge into project waters; (4) minor access roads; (5) telephone, gas, and electric utility distribution lines; (6) non-project overhead electric transmission lines that do not require erection of support structures within the project boundary; (7) submarine, overhead, or underground major telephone distribution cables or major electric distribution lines (69-kV or less); and (8) water intake or pumping facilities that do not extract more than one million gallons per day from a project reservoir.

No later than January 31 of each year, the licensee shall file three copies of a report briefly describing for each conveyance made under this paragraph (c) during the prior calendar year, the type of interest conveyed, the location of the lands subject to the conveyance, and the nature of the use for which the interest was conveyed.

(d) The licensee may convey fee title to, easements or rights-of-way across, or leases of project lands for: (1) construction of new bridges or roads for which all necessary state and federal approvals have been obtained; (2) sewer or effluent lines that discharge into project waters, for which all necessary federal and state water quality certification or permits have been obtained; (3) other pipelines that cross project lands or waters but do not discharge into project waters; (4) non-project overhead electric transmission lines that require erection of support structures within the project boundary, for which all necessary federal and state approvals have been obtained; (5) private or public marinas that can accommodate no more than 10 watercraft at a time and are located at least one-half mile (measured over project waters) from any other private or public marina; (6) recreational development consistent with an approved report on recreational resources of an exhibit E; and (7) other uses, if: (i) the amount of land conveyed for a particular use is five acres or less; (ii) all of the land conveyed is located at least 75 feet, measured horizontally, from project waters at normal surface elevation; and (iii) no more than 50 total acres of project lands for each project development are conveyed under this clause (d)(7) in any calendar year.

At least 60 days before conveying any interest in project lands under this paragraph (d), the licensee must submit a letter to the Director, Office of Energy Projects, stating its intent to convey the interest and briefly describing the type of interest and location of the lands to be conveyed (a marked exhibit G map may be used), the nature of the proposed use, the identity of any federal or state agency official consulted, and any federal or state approvals required for the proposed use. Unless the Director, within 45 days from the filing date, requires the licensee to file an application for prior approval, the licensee may convey the intended interest at the end of that period.

- (e) The following additional conditions apply to any intended conveyance under paragraph (c) or (d) of this article: (1) before conveying the interest, the licensee shall consult with federal and state fish and wildlife or recreation agencies, as appropriate, and the State Historic Preservation Officer; (2) before conveying the interest, the licensee shall determine that the proposed use of the lands to be conveyed is not inconsistent with any approved report on recreational resources of an exhibit E; or, if the project does not have an approved report on recreational resources, that the lands to be conveyed do not have recreational value; (3) the instrument of conveyance must include the following covenants running with the land: (i) the use of the lands conveyed shall not endanger health, create a nuisance, or otherwise be incompatible with overall project recreational use; (ii) the grantee shall take all reasonable precautions to ensure that the construction, operation, and maintenance of structures or facilities on the conveyed lands will occur in a manner that will protect the scenic, recreational, and environmental values of the project; and (iii) the grantee shall not unduly restrict public access to project waters; and (4) the Commission reserves the right to require the licensee to take reasonable remedial action to correct any violation of the terms and conditions of this article, for the protection and enhancement of the project's scenic, recreational, and other environmental values.
- (f) The conveyance of an interest in project lands under this article does not in itself change the project boundaries. The project boundaries may be changed to exclude land conveyed under this article only upon approval of revised exhibit G drawings (project boundary maps) reflecting exclusion of that land. Lands conveyed under this article will be excluded from the project only upon a determination that the lands are not necessary for project purposes, such as operation and maintenance, flowage, recreation, public access, protection of environmental resources, and shoreline control, including shoreline aesthetic values. Absent extraordinary circumstances, proposals to exclude lands conveyed under this article from the project shall be consolidated for consideration when revised exhibit G drawings would be filed for approval for other purposes.
- (G) The licensee shall serve copies of any Commission filing required by this order on any entity specified in this order to be consulted on matters related to the filing. Proof of service on these entities must accompany the filing with the Commission.

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(H) This order is final unless a request for rehearing is filed within 30 days from the date of its issuance, as provided in section 313(a) of the FPA and 18 C.F.R. § 385.713 (2006). The filing of a request for rehearing does not operate as a stay of the effective date of this license or of any other date specified in this order, except as specifically ordered by the Commission. The licensee's failure to file a request for rehearing shall constitute acceptance of this order.

J. Mark Robinson Director Office of Energy Projects

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Form L-12 (October, 1975)

#### FEDERAL ENERGY REGULATORY COMMISSION

# TERMS AND CONDITIONS OF LICENSE FOR CONSTRUCTED MINOR PROJECT AFFECTING THE INTERESTS OF INTERSTATE OR FOREIGN COMMERCE

<u>Article 1</u>. The entire project, as described in this order of the Commission, shall be subject to all of the provisions, terms, and conditions of the license.

Article 2. No substantial change shall be made in the maps, plans, specifications, and statements described and designated as exhibits and approved by the Commission in its order as a part of the license until such change shall have been approved by the Commission: Provided, however, That if the Licensee or the Commission deems it necessary or desirable that said approved exhibits, or any of them, be changed, there shall be submitted to the Commission for approval a revised, or additional exhibit or exhibits covering the proposed changes which, upon approval by the Commission, shall become a part of the license and shall supersede, in whole or in part, such exhibit or exhibits theretofore made a part of the license as may be specified by the Commission.

Article 3. The project area and project works shall be in substantial conformity with the approved exhibits referred to in Article 2 herein or as changed in accordance with the provisions of said article. Except when emergency shall require for the protection of navigation, life, health, or property, there shall not be made without prior approval of the Commission any substantial alteration or addition not in conformity with the approved plans to any dam or other project works under the license or any substantial use of project lands and waters not authorized herein; and any emergency alteration, addition, or use so made shall thereafter be subject to such modification and change as the Commission may direct. Minor changes in project works, or in uses of project lands and waters, or divergence from such approved exhibits may be made if such changes will not result in a decrease in efficiency, in a material increase in cost, in an adverse environmental impact, or in impairment of the general scheme of development; but any of such minor changes made without the prior approval of the Commission, which in its judgment have produced or will produce any of such results, shall be subject to such alteration as the Commission may direct.

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**Article 4**. The project, including its operation and maintenance and any work incidental to additions or alterations authorized by the Commission, whether or not conducted upon lands of the United States, shall be subject to the inspection and supervision of the Regional Engineer, Federal Energy Regulatory Commission, in the region wherein the project is located, or of such other officer or agent as the Commission may designate, who shall be the authorized representative of the Commission for such purposes. The Licensee shall cooperate fully with said representative and shall furnish him such information as he may require concerning the operation and maintenance of the project, and any such alterations thereto, and shall notify him of the date upon which work with respect to any alteration will begin, as far in advance thereof as said representative may reasonably specify, and shall notify him promptly in writing of any suspension of work for a period of more than one week, and of its resumption and completion. The Licensee shall submit to said representative a detailed program of inspection by the Licensee that will provide for an adequate and qualified inspection force for construction of any such alterations to the project. Construction of said alterations or any feature thereof shall not be initiated until the program of inspection for the alterations or any feature thereof has been approved by said representative. The Licensee shall allow said representative and other officers or employees of the United States, showing proper credentials, free and unrestricted access to, through, and across the project lands and project works in the performance of their official duties. The Licensee shall comply with such rules and regulations of general or special applicability as the Commission may prescribe from time to time for the protection of life, health, or property.

Article 5. The Licensee, within five years from the date of issuance of the license, shall acquire title in fee or the right to use in perpetuity all lands, other than lands of the United States, necessary or appropriate for the construction maintenance, and operation of the project. The Licensee or its successors and assigns shall, during the period of the license, retain the possession of all project property covered by the license as issued or as later amended, including the project area, the project works, and all franchises, easements, water rights, and rights or occupancy and use; and none of such properties shall be voluntarily sold, leased, transferred, abandoned, or otherwise disposed of without the prior written approval of the Commission, except that the Licensee may lease or otherwise dispose of interests in project lands or property without specific written approval of the Commission pursuant to the then current regulations of the Commission. The provisions of this article are not intended to prevent the abandonment or the retirement from service of structures, equipment, or other project works in connection with replacements thereof when they become obsolete, inadequate, or inefficient for further service due to wear and tear; and mortgage or trust deeds or judicial sales made

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thereunder, or tax sales, shall not be deemed voluntary transfers within the meaning of this article.

**Article 6**. The Licensee shall install and thereafter maintain gauges and streamgaging stations for the purpose of determining the stage and flow of the stream or streams on which the project is located, the amount of water held in and withdrawn from storage, and the effective head on the turbines; shall provide for the required reading of such gauges and for the adequate rating of such stations; and shall install and maintain standard meters adequate for the determination of the amount of electric energy generated by the project works. The number, character, and location of gauges, meters, or other measuring devices, and the method of operation thereof, shall at all times be satisfactory to the Commission or its authorized representative. The Commission reserves the right, after notice and opportunity for hearing, to require such alterations in the number, character, and location of gauges, meters, or other measuring devices, and the method of operation thereof, as are necessary to secure adequate determinations. The installation of gauges, the rating of said stream or streams, and the determination of the flow thereof, shall be under the supervision of, or in cooperation with, the District Engineer of the United States Geological Survey having charge of stream-gaging operations in the region of the project, and the Licensee shall advance to the United States Geological Survey the amount of funds estimated to be necessary for such supervision, or cooperation for such periods as may be mutually agreed upon. The Licensee shall keep accurate and sufficient records of the foregoing determinations to the satisfaction of the Commission, and shall make return of such records annually at such time and in such form as the Commission may prescribe.

<u>Article 7</u>. The Licensee shall, after notice and opportunity for hearing, install additional capacity or make other changes in the project as directed by the Commission, to the extent that it is economically sound and in the public interest to do so.

Article 8. The Licensee shall, after notice and opportunity for hearing, coordinate the operation of the project, electrically and hydraulically, with such other projects or power systems and in such manner as the Commission may direct in the interest of power and other beneficial public uses of water resources, and on such conditions concerning the equitable sharing of benefits by the Licensee as the Commission may order.

<u>Article 9</u>. The operations of the Licensee, so far as they affect the use, storage and discharge from storage of waters affected by the license, shall at all times be controlled by such reasonable rules and regulations as the Commission may prescribe for the protection of life, health, and property, and in the interest of the fullest practicable conservation and utilization of such waters for power purposes and for other

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beneficial public uses, including recreational purposes, and the Licensee shall release water from the project reservoir at such rate in cubic feet per second, or such volume in acre-feet per specified period of time, as the Commission may prescribe for the purposes hereinbefore mentioned.

**Article 10**. On the application of any person, association, corporation, Federal agency, State or municipality, the Licensee shall permit such reasonable use of its reservoir or other project properties, including works, lands and water rights, or parts thereof, as may be ordered by the Commission, after notice and opportunity for hearing, in the interests of comprehensive development of the waterway or waterways involved and the conservation and utilization of the water resources of the region for water supply or for the purposes of steam-electric, irrigation, industrial, municipal or similar uses. The Licensee shall receive reasonable compensation for use of its reservoir or other project properties or parts thereof for such purposes, to include at least full reimbursement for any damages or expenses which the joint use causes the Licensee to incur. Any such compensation shall be fixed by the Commission either by approval of an agreement between the Licensee and the party or parties benefiting or after notice and opportunity for hearing. Applications shall contain information in sufficient detail to afford a full understanding of the proposed use, including satisfactory evidence that the applicant possesses necessary water rights pursuant to applicable State law, or a showing of cause why such evidence cannot concurrently be submitted, and a statement as to the relationship of the proposed use to any State or municipal plans or orders which may have been adopted with respect to the use of such waters.

Article 11. The Licensee shall, for the conservation and development of fish and wildlife resources, construct, maintain, and operate, or arrange for the construction, maintenance, and operation of such reasonable facilities, and comply with such reasonable modifications of the project structures and operation, as may be ordered by the Commission upon its own motion or upon the recommendation of the Secretary of the Interior or the fish and wildlife agency or agencies of any State in which the project or a part thereof is located, after notice and opportunity for hearing.

Article 12. Whenever the United States shall desire, in connection with the project, to construct fish and wildlife facilities or to improve the existing fish and wildlife facilities at its own expense, the Licensee shall permit the United States or its designated agency to use, free of cost, such of the Licensee's lands and interests in lands, reservoirs, waterways and project works as may be reasonably required to complete such facilities or such improvements thereof. In addition, after notice and opportunity for hearing, the Licensee shall modify the project operation as may be reasonably prescribed by the Commission in order to permit the maintenance and operation of the fish and wildlife facilities constructed or improved by the United States under the provisions of this article.

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This article shall not be interpreted to place any obligation on the United States to construct or improve fish and wildlife facilities or to relieve the Licensee of any obligation under this license.

Article 13. So far as is consistent with proper operation of the project, the Licensee shall allow the public free access, to a reasonable extent, to project waters and adjacent project lands owned by the Licensee for the purpose of full public utilization of such lands and waters for navigation and for outdoor recreational purposes, including fishing and hunting: Provided, That the Licensee may reserve from public access such portions of the project waters, adjacent lands, and project facilities as may be necessary for the protection of life, health, and property.

Article 14. In the construction, maintenance, or operation of the project, the Licensee shall be responsible for, and shall take reasonable measures to prevent, soil erosion on lands adjacent to streams or other waters, stream sedimentation, and any form of water or air pollution. The Commission, upon the request or upon its own motion, may order the Licensee to take such measures as the Commission finds to be necessary for these purposes, after notice and opportunity for hearing.

Article 15. The Licensee shall clear and keep clear to an adequate width lands along open conduits and shall dispose of all temporary structures, unused timber, brush, refuse, or other material unnecessary for the purposes of the project which results from the clearing of lands or from the maintenance or alteration of the project works. In addition, all trees along the periphery of project reservoirs which may die during operations of the project shall be removed. All clearing of the lands and disposal of the unnecessary material shall be done with due diligence and to the satisfaction of the authorized representative of the Commission and in accordance with appropriate Federal, State, and local statutes and regulations.

Article 16. If the Licensee shall cause or suffer essential project property to be removed or destroyed or to become unfit for use, without adequate replacement, or shall abandon or discontinue good faith operation of the project or refuse or neglect to comply with the terms of the license and the lawful orders of the Commission mailed to the record address of the Licensee or its agent, the Commission will deem it to be the intent of the Licensee to surrender the license. The Commission, after notice and opportunity for hearing, may require the Licensee to remove any or all structures, equipment and power lines within the project boundary and to take any such other action necessary to restore the project waters, lands, and facilities remaining within the project boundary to a condition satisfactory to the United States agency having jurisdiction over its lands or the Commission's authorized representative, as appropriate, or to provide for the continued operation and maintenance of nonpower facilities and fulfill such other obligations under

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the license as the Commission may prescribe. In addition, the Commission in its discretion, after notice and opportunity for hearing, may also agree to the surrender of the license when the Commission, for the reasons recited herein, deems it to be the intent of the Licensee to surrender the license.

Article 17. The right of the Licensee and of its successors and assigns to use or occupy waters over which the United States has jurisdiction, or lands of the United States under the license, for the purpose of maintaining the project works or otherwise, shall absolutely cease at the end of the license period, unless the Licensee has obtained a new license pursuant to the then existing laws and regulations, or an annual license under the terms and conditions of this license.

<u>Article 18</u>. The terms and conditions expressly set forth in the license shall not be construed as impairing any terms and conditions of the Federal Power Act which are not expressly set forth herein.

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#### APPENDIX A

### WISCONSIN DEPARTMENT OF NATURAL RESOURCES CERTIFICATION UNDER SECTION 401 OF THE FEDERAL CLEAN WATER ACT ISSUED June 15, 2006, AND FILED ON August 10, 2006

- A. The licensee shall comply with all federal, state, and local permit requirements.
- B. The licensee shall meet the most current water quality standards adopted under s. 281.15, Wis. Stats. and 33 USC 1313, as well as any revised water quality standards that may be adopted over the term of the license.
- C. The licensee shall operate the Danbury Hydroelectric Project in a run-of-river mode. The licensee shall act at all times to minimize fluctuation of the reservoir surface elevation by maintaining a discharge from the Project so that, at any point in time, flows, as measured immediately downstream from the tailrace, approximate the sum of inflows to the project reservoir. Project operation may be temporarily modified if required by operating emergencies beyond the licensee's control or for short periods with the Department's approval. If project operation is temporarily modified due to circumstances beyond the licensee's control, the licensee must make all reasonable attempts to return to authorized operation as soon as possible.
- D. The licensee shall maintain a target reservoir elevation of 929.21 ± 0.3 feet NGVD from April through October and 928.11 NGVD from November through March. A min flow of 50 cfs must be released in the bypassed reach from December through February, and must be increased to 123 cfs or inflow, whichever is less, from March through November. The licensee shall act at all times to minimize fluctuations in headwater elevation, and the allowable range of reservoir level should not be used on a daily basis. If the reservoir elevation is temporarily modified due to uncontrollable circumstances, the licensee shall notify the Department's office in Park Falls, Wisconsin as soon as possible, but no later than 5 days after each incident. Within one year of issuance of the Water Quality Certification the licensee ( with DNR staff involvement and public participation) shall evaluate the reservoir elevation issue as it relates to dam operation using the results of the "Yellow River Hydraulic Study" of 2004 to evaluate and recommend possible solutions to the water level problems observed in Yellow lake.

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E. The licensee shall demonstrate compliance with the requirements in Paragraphs C and D in the following manner. The licensee shall install and maintain automatic water level sensors that continuously measure and record headwater and tailwater elevation. The licensee shall also maintain staff gauges that are visible to the public in the impoundment and tailwaters of both hydroplants along with a daily log record of project operation. Operators should record in the project log daily staff gauge readings, generation, flow releases through the powerhouse and spillway updated whenever changes are made, the daily minimum and maximum discharge through the project as calculated from accurate measurements of gate openings and the ratings curves for all outlets, comments to explain circumstances for equipment adjustments (e.g. snow melt, heavy precipitation, etc.), and a detailed description of the duration and circumstances of unexpected outages that interrupt flow through the turbines. All project log records, including comments, should be keypunched into electronic spreadsheet format. The electronic data should be permanently archived and provided to the resource agencies upon request.

Performance standards to demonstrate compliance with run-of-river operation will follow a phased approach, first by using operational data (i.e. headwater elevation, tailwater elevation, generation, tailrace discharge, spillway discharge) and descriptive definitions, then if necessary, by comparing inflow and discharge measurements from gauge stations. The objective of run-of-river operation is to maintain a stable reservoir elevation and to match discharge as closely as possible to inflow at each project. In managing reservoir levels operators should strive to minimize variations from the target elevation within the allowable range. The allowable band of  $\pm 0.3$  feet around the target reservoir level should not be used on a daily basis. Similarly, under run-of-river operation, changes in discharge through the turbines and spillway should follow the rate of changing inflow. Operators should adjust turbine and gate settings to achieve smooth transitions when inflow increases and decreases. Small adjustments made more often are generally preferred over larger adjustments made less frequently. Minimizing the percent change in discharge during periods of stable inflow is also important. Cycling a turbine on and off in response to changing reservoir level would not meet the Department's expectations for run-of-river operation at these projects. Because individual turbines can pass a substantial proportion of the streamflow in the system, cycling a unit on and off would cause unacceptable fluctuations in discharge. Run-of-river operation that closely mimics the natural hydrograph will minimize adverse impacts of project operations on aquatic resources and recreation.

If the Department determines, at the end of the 3-year test period required by Condition T below, that the licensee has not documented its ability to meet the descriptive compliance standard outlined in the preceding paragraph, and that the licensee has not proposed acceptable alternatives to achieve the compliance standard, then the licensee shall consult with the U. S. Geological Survey (USGS) to install and maintain two USGS-type gauges in the Yellow River, one upstream of the project reservoir and one in the riverine tailwaters immediately downstream from the tailrace. The gauges must be operational within one year from the end of the 3-year test period. The gauges shall be equipped with the "telemark" type system, with sufficient memory to allow instantaneous and short-term data retrieval via phone lines or the Internet. Discharge from the Danbury Hydro Project shall differ no more than  $\pm 10\%$  from inflow to the Project reservoir in concurrent measurements after appropriate corrections for travel time, gains and losses between the gauges, and measurement error. Appropriate corrections shall be determined in consultation with the Department and USGS within one year following activation of the new gauges.

- F. Within six months of license issuance, the licensee shall prepare an Outage Response Plan in consultation with the Department to ensure that discharge is promptly restored following unexpected outages that interrupt flow through the turbines.
- G. The licensee shall maintain all operational monitoring equipment in serviceable condition and calibrate, repair, or replace it as necessary. The licensee shall retain all electronic and paper records of project operations for the life of the project. The licensee shall allow the Department to access the project and its operational records at any time to monitor compliance with certification conditions.
- H. The Licensee shall collect detailed information on all aquatic species (fish, reptiles, amphibians, waterfowl, furbearers, etc.) found on the trash rack and in the tailrace pool immediately below the powerhouse. Records should include species, size (length), date, time, and general condition of the organism (i.e. alive, injured, freshly dead, or decomposed). The trash rack and tailrace pool should be visually inspected at least weekly. The licensee shall compile all records in a summary report submitted to the Department by December 31 each year.
- I. To the extent practicable the licensee shall pass downstream all woody and organic debris that accumulates near the trash racks. For the purposes of this condition, large wood is defined as any natural woody material greater than 3 feet long by 4 inches in diameter. Smaller wood and other organic material can be deposited in the tailrace. Wood and organic debris should be conveyed

downstream on a regular basis similar to the rate of accumulation to avoid depositing large volumes at one time. All trash and other synthetic materials shall be removed before organic material is transported downstream, and all trash shall be disposed by approved methods.

- J. The licensee shall submit to the Department a reservoir drawdown management plan at least 60 days in advance of all non-emergency reservoir drawdowns scheduled for any activity which requires that the reservoir elevation is lowered below 928.11 feet NGVD, including maintenance, inspection, renovation, resource management, etc. The drawdown management plan shall include detailed information on the objectives of the drawdown, seasonal timing, scheduled dates for drawdown and refill, drawdown and refill rates, minimum pool elevation, duration at drawdown level, minimum discharge during reservoir refill, agency and public notification procedures, and a discussion of the alternatives that the licensee evaluated to avoid a reservoir drawdown.
- K. The licensee shall monitor water quality of the reservoir three times annually within 3 weeks of ice-out and in July and August. A profile of dissolved oxygen concentration and temperature shall be recorded at one-meter intervals from surface to bottom in the deepest portion of the reservoir. Water samples should be collected at a depth of 1.0 meter at the same site. Secchi disk depth should be measured with each sample collection, and water samples should be analyzed for total phosphorus, chlorophyll a, and true color (Pt-Co units) using procedures approved by the U.S. Environmental Protection Agency. The limit of detection for the total phosphorus analysis should not exceed 7 micrograms per liter.
- L. The licensee shall retain all lands owned in fee within the project boundary.
- M. The licensee shall annually inspect the entire shoreline of the project waters for purple loosestrife (*Lythrum salicaria*) and other exotic species and map distribution and relative abundance. Inspections should be scheduled in August while plants are flowering so purple loosestrife can be readily identified. The licensee should submit a report of the monitoring results to the Department by December 31 each year. If the Department deems it necessary to initiate or expand efforts to control purple loosestrife or other exotic species in the Yellow River, the licensee shall provide reasonable cooperation in those efforts.
- N. The licensee shall monitor the shoreline of the project reservoir and tailrace for erosion, and if necessary, prepare an erosion control plan in consultation with the Department. Inspections should be conducted at three-year intervals in spring before vegetation develops, so eroded areas can be readily identified. The licensee

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shall submit to the Department a report of monitoring results by December 31 in the year of each inspection.

- O. Before engaging in any activity that may introduce zebra mussels into project waters, the licensee shall provide or demand (through contract clause or other binding agreement) evidence of effective decontamination of barges, tools, boats, construction equipment, or other items capable of transferring water containing larval or adult zebra mussels. Effective decontamination may include steam-cleaning, chemical treatment, physical treatment, or other suitable procedures.
- P. To continue the current practice of introducing cinders to seal leakage at project structures, the licensee must request and obtain a conditional grant of exemption to permit beneficial use of low hazard substances under Section 289.43(8) of Wisconsin Statutes. Within six months of license issuance, the licensee should initiate consultations with staff in the Waste Management Program at the Department's Service Center in Superior, Wisconsin on procedures to request an exemption from regulation. The licensee shall not deposit into the Yellow River any deleterious substances and materials, such as plastic sheeting, carpeting, carpet padding, weighted feed sacks, and manure, for sealing leakage or for any other purpose.
- Q. Within one year of license issuance, the licensee shall prepare a Hazardous Substance Spill Prevention, Control, and Countermeasures Plan for the Danbury Hydroelectric Station.
- R. The licensee shall cooperate with the Department to implement reasonable resource management practices, including but not limited to measures for controlling exotic populations, restoring endangered or threatened populations, and protecting or enhancing water quality, fish and wildlife populations, and their habitat.
- S. The licensee shall notify the Department and the public at least two weeks in advance of any scheduled activity that will substantially change reservoir elevation or discharge from normal project operations, including the full-range gate tests that FERC requires.
- T. A three-year test period shall be used to determine the licensee's ability to maintain compliance with the above conditions. The licensee shall prepare and submit annual reports to the Department documenting its ability to maintain operational compliance standards and, if necessary, its proposals to achieve the compliance standards.

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- U. At least 60 days before undertaking any proposed change to the project or its operation, which would have a significant or material effect on the findings, conclusions, or conditions of this certification, the licensee shall submit the proposal to the Department for review and written approval.
- V. The Department may request, at any time, that FERC consider modifications to the license to assure compliance with Wisconsin Water Quality Standards.
- W. On the date of submittal to the Commission, the licensee shall provide to the Department a complete copy of any application to transfer this license, including all attachments and schedules.