

163 FERC ¶ 62,100

**UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION**

Wisconsin Public Service Corporation

Project No. 1966-054

ORDER ISSUING NEW LICENSE

(Issued May 17, 2018)

INTRODUCTION

1. On March 28, 2016, Wisconsin Public Service Corporation (Wisconsin Public Service) filed, pursuant to sections 4(e) and 15 of the Federal Power Act (FPA),¹ an application for a new license to continue operation and maintenance of the Grandfather Falls Hydroelectric Project No. 1966 (Grandfather Falls Project or project). The 17.24-megawatt (MW) project is located on the Wisconsin River, 12 miles upstream of the City of Merrill in Lincoln County, Wisconsin.²
2. As discussed below, this order issues a new license for the Grandfather Falls Project. Under the new license, the project does not occupy any federal lands.

BACKGROUND

3. The Commission's predecessor, the Federal Power Commission, issued the original license for the Grandfather Falls Project on February 26, 1951, with an effective date of January 1, 1938, that expired on December 31, 1987.³ The Commission issued a

¹ 16 U.S.C. §§ 797(e) and 808 (2012).

² The Wisconsin River is a navigable waterway of the United States from its source, Lac Vieux Desert (located partly in Michigan and partly in Wisconsin), downstream to its junction with the Mississippi River near the City of Prairie du Chien, Wisconsin. *Wisconsin Public Service Corp. v. F.P.C.*, 147 F.2d 743, 748 (7th Cir. 1945); cert. den. 325 U.S. 880 (1945). Therefore, section 23(b)(1) of the FPA, 16 U.S.C. §817(1) (2012), requires the project to be licensed.

³ *Wisconsin Public Service Corp.* 10 F.P.C. 757 (1951).

new license for the project on April 14, 1988, with an effective date of April 1, 1988, which expired on March 31, 2018.⁴ Since then, Wisconsin Public Service has operated the project under an annual license pending the disposition of the new license application.

4. On March 1, 2017, the Commission issued a public notice that was published in the *Federal Register* accepting the application for filing, indicating the application was ready for environmental analysis, and setting April 30, 2017, as the deadline for filing motions to intervene, protests, comments, recommendations, preliminary terms and conditions, and preliminary fishway prescriptions.⁵ The Wisconsin Department of Natural Resources (Wisconsin DNR) and River Alliance of Wisconsin (River Alliance) filed notices of intervention.⁶

5. The U.S. Department of Interior (Interior) filed comments, recommendations, and preliminary terms and conditions in response to the March 1, 2017 notice. River Alliance and the National Park Service (Park Service) also filed recommendations in response to the notice. Wisconsin Public Service filed reply comments on June 13, 2017.

6. Commission staff issued an environmental assessment (EA) on January 24, 2018, analyzing the effects of the proposed project and alternatives to it.⁷ River Alliance, the U.S. Environmental Protection Agency (EPA), Wisconsin Public Service, and the Park Service filed comments on the EA.

7. The interventions, comments, recommendations, and conditions have been fully considered in determining whether, and under what conditions, to issue this license.

⁴ *Wisconsin Public Service*, 43 FERC ¶ 62,042 (1988).

⁵ 82 Fed. Reg. 12,809 (March 7, 2017). The Commission's Rules of Practice and Procedure provide that if a filing deadline falls on a Saturday, Sunday, holiday, or other day when the Commission is closed for business, the filing deadline does not end until the close of business on the next business day. 18 C.F.R. § 385.2007(a)(2) (2017). Because the 60-day filing deadline fell on a Sunday (i.e., April 30, 2017), the filing deadline was extended until the close of business on Monday, May 1, 2017.

⁶ Under Rule 214(a) of the Commission's Rules of Practice and Procedure, Wisconsin DNR and River Alliance became parties to the proceeding upon timely filing of their notices of intervention. 18 C.F.R. § 385.214(c) (2017).

⁷ The EA also considered the effects of relicensing the Tomahawk Hydroelectric Project No. 1940.

PROJECT DESCRIPTION

A. Project Area

8. The Grandfather Falls Project is located on the Wisconsin River in Lincoln County, in north central Wisconsin. The Wisconsin River originates in Lac View Desert, a spring-fed lake on the border of Wisconsin and the Upper Peninsula of Michigan, and extends 430 miles south to where it joins the Mississippi River. The Wisconsin River has about 390 smaller tributaries and nine major tributaries: the Tomahawk, Rib, Eau Claire, Big Eau Claire, Yellow, Lemonweir, Baraboo, Pine, and Kickapoo Rivers.

B. Project Facilities

9. The Grandfather Falls Project includes the 36-foot-high, 762-foot-long, reinforced concrete Grandfather Falls Dam that impounds a 340-acre reservoir at a normal full pond elevation of 1,397.1 feet National Geodetic Vertical Datum (NGVD) 1929. The reservoir extends 5.5 miles upstream to the Grandmother Falls Hydroelectric Project No. 2180.

10. Starting from the west end of the dam, a spillway section with seven Tainter gates spans the Wisconsin River and bifurcates the river into the bypassed reach immediately downstream of the spillway and the project's intake canal located on the eastern-most side of the river. Water diverted into the intake canal flows under the canal bridge, which spans the eastern bank of the Wisconsin River, to the northeastern-most dam embankment and provides access to the spillway. Water flows south through the intake canal for approximately three-quarters of a mile, then reaches the intake structure where it is channeled into two steel penstocks connected to surge tanks with internal risers. The water then enters a 67-foot-wide, 53-foot-long, 46-foot-high powerhouse containing two vertical-shaft turbine-generator units with a combined nameplate rated capacity of 17.24 MW and then is released back into the Wisconsin River at the southern base of the bypassed reach. Water is discharged from the powerhouse to the Wisconsin River via draft tubes into a bedrock excavated tailrace. The normal tailwater elevation of the project is 1,302.2 feet NGVD. Project power is transmitted from the powerhouse through two 6.9-kilovolt (kV) generator leads and two circuit breakers and step-up transformers to a 46-kV electrical line that is connected to an adjacent non-project substation via an approximately 300-foot-long overhead power line. The project is estimated to generate an average of 72,031.72 megawatt hours (MWh) annually.

11. There are eight project recreation facilities: (1) the Grandfather Falls flowage boat landing (flowage boat landing), located on the western shore of the project reservoir, just south of the County Road E bridge; (2) the Rock Falls boat landing, located on the eastern shore near the middle of the project reservoir; (3) the Grandfather Falls intake access (intake access), located off of State Highway 107 on the east side of the Wisconsin River; (4) the Grandfather Falls Dam access (dam access), located off State Highway 107; (5) the Grandfather Falls tailrace access (tailrace access), located off of State

Highway 107, immediately downstream of the powerhouse; (6) a 500-foot-long portage trail around the project dam; (7) 4.8 miles of the Ice Age National Scenic Trail (Ice Age Trail);⁸ and (8) a scenic overlook, located on the east side of the project's reservoir.

C. Project Boundary

12. The existing project boundary encloses the dam, powerhouse, penstocks, reservoir, power canal, tailrace, appurtenant facilities, bypassed reach, and the eight project recreation facilities. The project boundary extends about 1 mile downstream of the powerhouse.

13. Wisconsin Public Service proposes to modify the project boundary by removing 2,053 acres of hardwood forest located along the east and west sides of the reservoir and downstream of the powerhouse. The project boundary is discussed further below.

D. Current Project Operation

14. The project operates in a peaking mode with a maximum 1-foot daily fluctuation between elevations 1396.1 and 1397.1 feet NGVD, as required by Article 405 of the current license.⁹ The project is automated and remotely operated from Wisconsin Public Service's Energy Supply and Control Center located at Green Bay, Wisconsin, which is staffed 24 hours per day, 365 days per year. During normal peaking operation, the reservoir is drawn down from the maximum pond elevation during the day and refilled at night, providing one peaking cycle per day.

15. Water releases from the Tomahawk and Grandmother Falls Hydroelectric Projects, and the non-power dam at Spirit Lake,¹⁰ which are located upstream of the Grandfather Falls Project, are coordinated with water releases from the Grandfather Falls Project to ensure that adequate water is available in the Wisconsin River during seasonal low-flow periods.

⁸ The 4.8-mile-long section is part of the Park Service's approximately 1,000-mile-long Ice Age Trail, but the segment is not Park Service land. Wisconsin Public Service operates and maintains the 4.8-mile-long section without assistance from the Park Service.

⁹ *Wisconsin Public Service*, 45 FERC ¶62,157 (1988).

¹⁰ The non-powered Spirit Dam is located on the Spirit River about 1 mile upstream of the confluence of the Spirit and Wisconsin Rivers. Spirit Dam and reservoir are project facilities of the Wisconsin River Headwaters Project No. 2113.

16. Article 403 of the current license requires Wisconsin Public Service to maintain a minimum flow of 400 cfs or inflow, whichever is less, downstream of the project tailrace. The 400-cfs minimum flow may include a minimum flow of 50 cfs that is released into the Grandfather Falls bypassed reach, as required by Article 404 of the current license.

PROPOSED OPERATION AND ENVIRONMENTAL MEASURES

17. Wisconsin Public Service proposes to continue to operate the project in a peaking mode, with the current daily impoundment fluctuation limit of 1 foot or less from the normal pool elevation of 1,397.1 feet NGVD.

18. To protect water quality and fishery resources, Wisconsin Public Service proposes to continue to maintain the minimum project outflow of 400 cfs or inflow, whichever is less, as measured downstream of the project tailrace.

19. To protect fishery resources in the Grandfather Falls bypassed reach, Wisconsin Public Service proposes to continue to release a minimum flow of 50 cfs in the bypassed reach.

20. To document that the 400-cfs minimum flow, which can include the 50-cfs minimum flow, is being provided, Wisconsin Public Service proposes to continue to monitor minimum flow. A weir located immediately downstream of the spillway gates allows 50 cfs to be released into the bypassed reach, while the remainder would continue to be monitored via spillway gate openings at the dam and turbine generation data collected in the powerhouse.

21. To protect fishery resources in the reservoir during planned and emergency drawdowns, Wisconsin Public Service proposes to implement the Reservoir Drawdown Management Plan (Reservoir Drawdown Plan), filed on October 28, 2016.

22. To annually fund aquatic enhancement measures that would be identified each year, Wisconsin Public Service proposes to implement the Aquatic Resource Fund Management Plan (Aquatic Resource Fund), filed on October 28, 2016.

23. To document that project operation is in compliance with the license's operating requirements, Wisconsin Public Service proposes to implement the Operation Monitoring Plan, filed on October 28, 2016.

24. To guide the handling of woody debris that accumulates on the project's trashracks, Wisconsin Public Service proposes to implement the Woody Debris Management Plan (Woody Debris Plan), filed on October 28, 2016.

25. To minimize the spread of invasive species, Wisconsin Public Service proposes to implement the Invasive Species Management Plan for terrestrial invasive species, filed on

October 28, 2016, which includes provisions for: (1) invasive plant monitoring; (2) training staff on invasive plant identification; and (3) educational signage.

26. To manage wildlife, recreation, and land use at the project, Wisconsin Public Service proposes to implement the Comprehensive Land and Wildlife Management Plan (Wildlife Management Plan), filed on October 28, 2016, which contains provisions for: (1) operating and maintaining existing recreation facilities at the project; (2) managing wildlife, including bald eagles and wood turtles; (3) protecting the federally listed northern long-eared bat and gray wolf; (4) shoreline management; (5) fire control measures; (6) forest insect and disease control programs; and (7) wetland management.

27. To enhance recreation resources at the project, Wisconsin Public Service proposes to implement the Recreation Plan, filed on October 28, 2016, which contains provisions for: (1) operating and maintaining project recreation facilities; (2) removing rocks upstream of the flowage boat landing; (3) adding a seasonal portable toilet at the flowage boat landing, dam access, intake access, and tailrace access; (4) providing up to three 4-hour whitewater flow releases of 1,500 cfs each year; (5) monitoring use of the whitewater flow releases; (6) constructing a path from the Ice Age Trail to downstream of the Grandfather Falls Dam; (7) installing directional signage at the bypassed reach; (8) installing an information kiosk at the dam access; and (9) developing a whitewater information webpage.

28. To protect cultural and historic resources, Wisconsin Public Service proposes to implement the statewide programmatic agreement (PA) for Wisconsin, executed in 1993,¹¹ and the proposed Historic Properties Management Plan (HPMP)¹² to protect historic properties.

SUMMARY OF LICENSE REQUIREMENTS

29. This license, which authorizes 17.24 MW of renewable energy generation capacity, requires most of the proposed measures noted above with the staff-recommended modifications and additional measures described below, along with the

¹¹ The full name of the PA is Programmatic Agreement Among the Federal Energy Regulatory Commission, the Advisory Council on Historic Preservation, 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.

¹² The HPMP was filed on October 28, 2016. Wisconsin State Historic Preservation Office (SHPO) approved the HPMP in a letter filed on February 9, 2016.

conditions included in Wisconsin DNR's water quality certification (certification) (Appendix A). The license does not include Wisconsin Public Service's proposed: (1) Aquatic Resource Fund; and (2) Wildlife Management Plan, with the exception of the following components: (a) the northern long-eared bat avoidance and protection measures, and (b) using the U.S. Fish and Wildlife Service's (FWS) May 2007 *National Bald Eagle Management Guidelines*.

30. To thoroughly document that project operation is in compliance with the license's operating requirements, the license requires Wisconsin Public Service to modify its proposed Operation Monitoring Plan, to include: (1) a description of how project facilities will be operated to provide the whitewater boating flow releases; and (2) detailed descriptions of the methods and procedures that will be used to monitor the whitewater flow releases.

31. To minimize the spread of invasive species, the license requires Wisconsin Public Service to modify its proposed Invasive Species Management Plan, to include: (1) a description of the methods proposed for monitoring invasive aquatic plants within the reservoir; (2) the proposed frequency of monitoring; and (3) the proposed criteria to be used to determine when control measures will be implemented.

32. To protect roosting northern long-eared bats, the license requires Wisconsin Public Service to modify its proposed northern long-eared bat protection measures to include a restriction on cutting trees that are equal to or greater than 3 inches in diameter from April 1 through October 31.

33. To protect bald eagles nesting within the project boundary, the license requires Wisconsin Public Service to develop a bald eagle management plan.

34. To maintain and enhance recreation resources at the project, the license requires Wisconsin Public Service to modify its proposed Recreation Plan, to: (1) release, each year, up to one 4-hour scheduled whitewater flow of 1,800 cfs, between May 1 and May 31 and up to two 4-hour scheduled whitewater flows of 1,500 cfs to 1,800 cfs, between May 1 and June 21 in the bypassed reach; (2) remove the provision for the Park Service to provide information about the hazards in the bypassed reach from the proposed information kiosk at the dam access site, and instead include a description of the characteristics of the bypassed reach and general safety guidelines; (3) remove the provision to include the results of the 2014 recreation flow study on the proposed whitewater boating webpage; and (4) include an annual reporting provision on whitewater boating use in the bypassed reach for the first 3 years of scheduled recreation flow releases.

WATER QUALITY CERTIFICATION

35. Under section 401(a)(1) of the Clean Water Act (CWA),¹³ the Commission may not issue a license authorizing the construction or operation of a hydroelectric project unless the state water quality certifying agency either has issued water quality 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.¹⁴

36. On March 17, 2017, Wisconsin Public Service applied to Wisconsin DNR for certification for the Grandfather Falls Project, which Wisconsin DNR received on March 20, 2017. Wisconsin DNR issued a certification for the project on January 16, 2018, which includes the conditions set forth in Appendix A of this order. This license incorporates all the conditions required by Wisconsin DNR's certification into the license by ordering paragraph D.

COASTAL ZONE MANAGEMENT ACT

37. Under section 307(c)(3)(A) of the Coastal Zone Management Act (CZMA),¹⁵ the Commission cannot issue a license for a project within or affecting a state's coastal 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 six months of its receipt of the applicant's certification.

38. On February 10, 2016, Wisconsin Public Service requested concurrence from the Wisconsin Coastal Resources Management Program to confirm that a consistency review for the project is unnecessary because it is not located in Wisconsin's designated coastal area. In email correspondence,¹⁶ the Wisconsin Coastal Resources Management Program states that the Grandfather Falls Project is outside of Wisconsin's coastal zone and unlikely to affect coastal resources. Therefore, no consistency certification is required.

¹³ 33 U.S.C. § 1341(a)(1) (2012).

¹⁴ 33 U.S.C. § 1341(d) (2012).

¹⁵ 16 U.S.C. § 1456(c)(3)(A) (2012).

¹⁶ The license application, filed on March 28, 2016, contains the email correspondence dated February 22, 2016 from the Wisconsin Coastal Resources Management Program.

SECTION 18 FISHWAY PRESCRIPTION

39. Section 18 of the FPA¹⁷ 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.

40. Neither agency filed a fishway prescription, or a reservation of authority to prescribe fishways, under section 18 of the FPA for the project.

THREATENED AND ENDANGERED SPECIES

41. Section 7(a)(2) of the Endangered Species Act of 1973 (ESA)¹⁸ 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.

42. There are two listed terrestrial species that are known to occur within Lincoln County: (1) federally endangered gray wolf (*Canis lupus*); and (2) federally-threatened northern long-eared bat (*Myotis septentrionalis*).

A. Gray Wolf

43. Staff determined in the EA,¹⁹ that relicensing the project, as proposed with the staff-recommended measures, would have no effect on the gray wolf. Therefore, no further consultation under the ESA is required for this species.

B. Northern Long-Eared Bat

44. FWS listed the northern long-eared bat as a threatened species under the ESA, and then issued a 4(d) rule for this species in January 2016 (i.e., Programmatic biological opinion).²⁰ The 4(d) rule focuses on preventing the effects of disturbances to known northern long-eared bat hibernacula and the effects of tree removal on roosting northern long-eared bats, including maternity colonies, located within the zone associated with the

¹⁷ 16 U.S.C. § 811 (2012).

¹⁸ 16 U.S.C. § 1536(a) (2012).

¹⁹ EA at 71.

²⁰ Section 4(d) of the ESA directs FWS to issue regulations deemed “necessary and advisable to provide for the conservation of threatened species.” 16 U.S.C. § 1533(d).

spread of white-nose syndrome. Under the 4(d) rule, a take that is incidental to tree removal is permitted if it: (1) occurs more than 0.25 mile from a known, occupied hibernacula; or (2) avoids cutting or destroying known, occupied maternity roost trees or any trees within a 150-foot radius around a known, occupied maternity tree during the pup season (June 1 to July 31).

45. In the EA,²¹ Commission staff determined that although there is no known documentation of northern long-eared bat populations within the project boundary, FWS's Information for Planning and Consultation system indicates that the bat has the potential to occur within Lincoln County.²² Staff further concluded that the northern long-eared bat could be affected by tree removal related to Wisconsin Public Service's proposed construction of a path from the Ice Age Trail, which will require the removal of up to 25 trees, and the proposed maintenance of the canoe portages, which will require periodic clearing of vegetation that may include bat habitat.

46. To protect the northern long-eared bat, Wisconsin Public Service proposes to follow FWS's Final 4(d) rule, which includes limiting tree removal during the maternity roost season for the bat. To reduce the likelihood of disturbing the northern long-eared bat, staff recommended in the EA that that Wisconsin Public Service's proposed schedule for limiting cutting, trimming, and removal of trees for protecting the bat also include prohibiting the cutting, trimming, or removal of trees 3 inches or greater in diameter from April 1 through October 31 unless the trees pose an immediate threat to human life or property.

47. In its comments on the EA, Wisconsin Public Service states that staff's recommended additional timing restrictions for tree cutting extends beyond that proposed by Wisconsin Public Service and the identical timeframe in FWS' Programmatic biological opinion. Wisconsin Public Service states that the additional timing restrictions will require long lead times to implement what is otherwise routine maintenance. Wisconsin Public Service recommends that it either be allowed to remove trees under the Programmatic biological opinion or that the license include a provision for allowing tree removal during the time period on a limited, case-specific basis after consultation with FWS if tree removal within the project boundary is necessary from April 1 through May 31 and August 1 through October 31.

48. In Wisconsin, the northern long-eared bats emerge from their hibernaculum in late April and early May, and leave their roosts to seek winter hibernation sites in late

²¹ EA at 70-71.

²² *Id.* at 69-70.

October and early November.²³ Therefore, staff's recommended timeframe to restrict tree removal (i.e., April 1 through October 31) would provide additional protection for the bats during spring emergence and breeding times. As discussed in the EA,²⁴ the restricted timeframe for tree removal is intended to mitigate any project effects on potential roosting and/or maternity roosting habitats within the project boundary. However, to avoid potential maintenance delays caused by the extended tree removal restrictions, Wisconsin Public Service may consult with, and receive agreement, from FWS prior to the removal of trees that are 3 inches or greater in diameter during the following dates: April 1 through May 31 and August 1 through October 31.²⁵ Commission staff also determined that while continued operation and maintenance of the project may affect the northern long-eared bat, any incidental take that may result is not prohibited per the conservation measures for the species issued by FWS under section 4(d) of the ESA.²⁶ Article 408 requires Wisconsin Public Service to restrict cutting trees from April 1 through October 31.

NATIONAL HISTORIC PRESERVATION ACT

49. Under section 106 of the National Historic Preservation Act (NHPA)²⁷ and its implementing regulations,²⁸ federal agencies must take into account the effect of any

²³ Wisconsin Department of Natural Resources, Bureau of Natural Heritage Conservation, *Northern Long-eared bat (Myotis septentrionalis) Species Guidance*, <http://dnr.wi.gov/files/PDF/pubs/er/ER0700.pdf>.

²⁴ EA at 70-71.

²⁵ FWS Final 4(d) rule for the northern long-eared bat requires consultation for tree removal from June 1- July 31 if tree removal occurs within 150 feet of a known occupied maternity roost tree. Because there are no known maternity roost trees, Wisconsin Public Service will not have to consult with FWS from June 1 to July 31.

²⁶ On January 24, 2018, staff requested concurrence with this determination on the northern long-eared bat in writing within 30 days, noting that if FWS did not respond within 30 days, staff will presume that the determination is informed by the best available information and that our responsibilities under 7(a)(2) with respect to the northern long-eared bat are fulfilled through FWS' January 5, 2016, Programmatic biological opinion. FWS did not respond to Commission staff's request for concurrence.

²⁷ Section 106 of the NHPA of 1966, as amended, 54 U.S.C. § 306108, Pub. L. No. 113-287, 128 Stat. 3188 (2017).

²⁸ 36 C.F.R. Part 800 (2017).

proposed undertaking on properties listed or eligible for listing in the National Register of Historic Places (National Register), defined as historic properties, and afford the Advisory Council on Historic Preservation (Advisory Council) a reasonable opportunity to comment on the undertaking. This generally requires the Commission to consult with the SHPO to determine whether and how a proposed action may affect historic properties, and to seek ways to avoid or minimize any adverse effects.

50. To satisfy these responsibilities for licensing actions in Wisconsin and Michigan, the Commission executed a statewide PA with the Advisory Council, the Wisconsin SHPO, and the Michigan SHPO on December 16, 1993.²⁹ Execution of the PA demonstrates the Commission's compliance with section 106 of the NHPA.

51. The PA requires Wisconsin Public Service to implement its HPMP, filed on October 28, 2016, for the term of the license. Article 412 requires Wisconsin Public Service to implement the PA and HPMP.

RECOMMENDATIONS OF FEDERAL AND STATE FISH AND WILDLIFE AGENCIES PURSUANT TO SECTION 10(j) OF THE FPA

52. Section 10(j)(1) of the FPA³⁰ requires the Commission, when issuing a license, to include conditions based on recommendations submitted by federal and state fish and wildlife agencies pursuant to the Fish and Wildlife Coordination Act³¹ to "adequately and equitably protect, mitigate damages to, and enhance fish and wildlife (including related spawning grounds and habitat)" affected by the project.

53. In response to the March 1, 2017, public notice that the project was ready for environmental analysis, on April 28, 2017, Interior filed three recommendations under section 10(j). Two of the recommendations are outside the scope of section 10(j) and are discussed in the next section.

54. The recommendation that is within the scope of 10(j) would require Wisconsin Public Service to develop a plan to monitor compliance with project operation that employs mechanisms to document inflow to, and discharge from, the project, including in

²⁹ The PA is implemented for all hydroelectric projects in Wisconsin and Michigan's Upper Peninsula that may affect properties included in, or eligible for, the National Register.

³⁰ 16 U.S.C. § 803(j)(1) (2012).

³¹ 16 U.S.C. §§ 661 *et seq.* (2012).

the Grandfather Falls bypassed reach and in the project tailrace. The recommendation is not included in this license for the reasons discussed below.

55. If the Commission believes that any section 10(j) recommendation may be inconsistent with the purposes and requirements of Part I of the FPA or other applicable law, section 10(j)(2) requires the Commission and the agencies to attempt to resolve any such inconsistency, giving due weight to the recommendations, expertise, and statutory responsibilities of such agencies.³² If the Commission still does not adopt a recommendation, it must explain how the recommendation is inconsistent with Part I of the FPA or other applicable law and how the conditions imposed by the Commission adequately and equitably protect, mitigate damages to, and enhance fish and wildlife resources.

56. As discussed in the EA,³³ Commission staff made an initial determination that Interior's recommendation may be inconsistent with the comprehensive planning standard of section 10(a)(1) and the public interest standard of section 4(e) of the FPA. The EA determined that Wisconsin Public Service's proposed operation monitoring plan, with provisions for using the project's current reservoir elevation and minimum flow monitoring equipment, would be sufficient to document operational compliance. Therefore, Interior's recommendation for an operation monitoring plan that would also require documenting inflows to the project would have no added benefits.³⁴ By letter issued January 24, 2018, staff advised Interior of its preliminary determination and invited Interior to request a meeting, telephone or video conference, or other additional procedure to attempt to resolve the preliminary determination of inconsistency. In response, FWS on behalf of Interior, filed a letter on March 7, 2018, stating that they do not request a meeting, telephone or video conference, or other additional procedure to attempt to resolve the preliminary determination of inconsistency, and have no further comments. Consistent with staff's recommendation in the EA, the license requires Wisconsin Public Service's proposed operation monitoring plan (Article 402). Therefore, the inconsistency between Interior's recommended operation monitoring plan and the FPA remains unresolved.

57. In accordance with section 10(j)(2)(B) of the FPA, the operation compliance monitoring plan and other fisheries measures required by this license (e.g., Articles 401,

³² 16 U.S.C. § 803(j)(2) (2012).

³³ EA at 144-146.

³⁴ *Id.* at 44 and 45.

403, and 404), will adequately and equitably protect, mitigate damages to, and enhance fish and wildlife resources affected by this project.

SECTION 10(a)(1) OF THE FPA

58. Section 10(a)(1) of the FPA³⁵ requires that any project for which the Commission issues a license be best adapted to a comprehensive plan for improving or developing a waterway or waterways for the use or benefit of interstate or foreign commerce; for the improvement and utilization of waterpower development; for the adequate protection, mitigation, and enhancement of fish and wildlife; and for other beneficial public uses, including irrigation, flood control, water supply, recreation, and other purposes.

59. The remaining two 10(j) recommendations filed by Interior are not specific measures to protect, mitigate damages to, or enhance fish and wildlife, and therefore are considered under the broad public interest standard of section 10(a)(1) of the FPA.³⁶

A. Annual Meetings with FWS

60. Interior recommends that Wisconsin Public Service consult with FWS on matters affecting fish and wildlife throughout the term of the new license. As the stated purpose of the meeting is general in nature, it is unclear how holding such an annual meeting would specifically benefit fish and wildlife resources affected by the project. Moreover, if there are unforeseen or unanticipated adverse project effects on fish and wildlife resources during the license term, FWS could petition the Commission to reopen the license to consider additional measures pursuant to Standard Article 15 of Form L-3. Therefore, there is no need to require that Wisconsin Public Service annually consult with FWS.

B. Aquatic Resource Fund

61. Wisconsin Public Service proposes to establish an Aquatic Resource Fund which would provide up to \$13,500 annually for aquatics and terrestrial-related activities at the

³⁵ 16 U.S.C. § 803(a)(1) (2012).

³⁶ The two recommendations outside the scope of 10(j) are: (1) consultation with FWS on matters affecting fish and wildlife throughout the term of any new license; and (2) consultation with FWS and Park Service on decisions regarding protection and enhancement management activities in the Wisconsin River, including the annual selection of projects or tasks proposed for the Aquatic Resources Fund.

Grandfather Falls Project. The types of activities to be funded would be decided annually by Wisconsin Public Service, Wisconsin DNR, and FWS. Wisconsin Public Service included the following examples of types of activities that could be funded: (1) an aquatic plant point-intercept survey; (2) the release of *Galerucella* beetles in nearshore areas of the project reservoir to control invasive plants; (3) the control of Eurasian water milfoil using herbicides; (4) a fish survey; and (5) water quality monitoring.

62. Interior recommends that Wisconsin Public Service consult with either FWS or the Park Service on decisions regarding the selection of tasks proposed to be funded.

63. In its comments on the EA, River Alliance recommends the Aquatic Resource Fund and states that other hydropower projects in Wisconsin have had settlement agreements that included aquatic resource funding.³⁷

64. As discussed in the EA,³⁸ continued operation of the Grandfather Falls Project, with the staff-recommended measures, would provide sufficient protection for the aquatic resources in project-affected waters without the need for the Aquatic Resource Fund. Moreover, as noted in the EA, the Commission's Policy Statement on Hydropower Licensing Settlements states that it is the Commission's preference that licenses include protection, mitigation, and enhancement measures with a clear nexus to the project, rather than broad, open-ended funding measures, like those proposed in the Aquatic Resource Fund.³⁹ Finally, there is no evidence that the types of activities that are mentioned for potential funding under the proposed Aquatic Resource Fund are needed to address a project effect. For these reasons, this license does not include this measure.

C. Project Operation and Reservoir Fluctuations

65. Under current project operation, water quality parameters (i.e., pH, temperature, and dissolved oxygen (DO)), are consistent with state standards, and in many instances, DO levels are well above the minimum state standard for DO of 5.0 milligrams per

³⁷ River Alliance cites as examples the Wilderness Shores Settlement Agreement on the Menominee River and the Lower Chippewa River Settlement Agreement on the Chippewa River. These settlements each involved several hydropower projects, including the Big Quinnesec Falls Project No. 1980 on the Menominee River and the Holcombe Project No. 1982 on the Chippewa River.

³⁸ EA at 58-59.

³⁹ Settlements in Hydropower Licensing Proceedings under Part I of the Federal Act, 116 FERC ¶ 61,270 (2006).

liter.⁴⁰ To protect water quality and aquatic resources in the project reservoir and in the Wisconsin River downstream of the project, Wisconsin Public Service proposes to continue maintaining the Grandfather Falls reservoir within a maximum daily fluctuation of 1.0 foot or less from the normal pool elevation of 1,397.1 feet NGVD. In the EA, staff recommended that the project continue to operate in this manner.⁴¹ Thus, Article 401 requires Wisconsin Public Service to operate the project with a maximum daily fluctuation of 1.0 foot or less in the Grandfather Falls reservoir.

D. Reservoir Drawdowns

66. Reservoir drawdowns have the potential to adversely affect aquatic resources in the project reservoir and in the Wisconsin River downstream from the project's powerhouse and dam. Wisconsin Public Service proposes to implement a Reservoir Drawdown Plan for the project to protect aquatic resources during any scheduled or unscheduled maintenance activities and emergency drawdowns. As discussed in the EA,⁴² while reservoir drawdowns have historically been infrequent, future reservoir drawdowns for maintenance activities could be more likely under a new license given the age of the project facilities. The proposed Reservoir Drawdown Plan includes procedures for minimizing adverse effects on aquatic resources in the project reservoir and downstream, including a drawdown rate of no greater than one foot per day; methods for passing minimum flows downstream during drawdowns; and a reservoir refill plan, schedule, and refill rate. In the EA, staff recommended that the proposed Reservoir Drawdown Plan be included in the license.⁴³ Thus, Article 407 requires Wisconsin Public Service to implement the proposed Reservoir Drawdown Plan.

E. Minimum Flow in Project Tailrace

67. Wisconsin Public Service proposes to continue to provide a minimum project outflow of 400 cfs from the powerhouse into the project tailrace to protect aquatic resources in the Wisconsin River downstream from the project.⁴⁴ As discussed in the

⁴⁰ EA at 39-40.

⁴¹ *Id.* at 134.

⁴² *Id.* at 40-42.

⁴³ *Id.* at 134.

⁴⁴ The minimum flow of 50 cfs from the bypassed reach (Article 404) can be contributed to meeting the 400-cfs minimum flow in the project tailrace.

EA,⁴⁵ the current release of 400 cfs into the project tailrace supports an active sport fishery in the project-affected reach of the Wisconsin River downstream from the project. In the EA, staff recommended that the minimum flow of 400 cfs into the project tailrace be continued in the license.⁴⁶ Thus, Article 403 requires Wisconsin Public Service to provide a minimum flow of 400 cfs downstream of the project tailrace and Article 402 requires monitoring of the minimum flow.

F. Minimum Flow in the Bypassed Reach

68. Wisconsin Public Service proposes to continue providing a minimum flow of 50 cfs in the bypassed reach of the Wisconsin River to protect aquatic resources. As discussed in the EA,⁴⁷ the 50-cfs minimum flow in the bypassed reach protects water quality, and provides spawning, nursing, and rearing habitat for several fish species, including the smallmouth bass, a dominant fish species in the bypassed reach. Therefore, in the EA, staff recommended that a 50-cfs minimum flow in the bypassed reach be continued in the license.⁴⁸ Thus, Article 404 requires Wisconsin Public Service to provide a minimum flow of 50 cfs in the bypassed reach and Article 402 requires monitoring of the minimum flow.

G. Woody Debris Management

69. Wisconsin Public Service proposes a Woody Debris Plan that would require it to continue to sluice woody debris after it is removed from the project trashracks, and place the debris back into the Wisconsin River downstream of the project. As discussed in the EA,⁴⁹ placing the large woody debris downstream of the project benefits aquatic resources because the large woody debris can provide aquatic habitat in the Wisconsin River. In the EA, staff recommended that the Woody Debris Plan be included in the license.⁵⁰ Article 406 requires Wisconsin Public Service to implement the Woody Debris Plan.

⁴⁵ EA at 35-36, 39-40, and 58.

⁴⁶ *Id.* at 134.

⁴⁷ *Id.* at 39-40 and 49-50.

⁴⁸ *Id.* at 134.

⁴⁹ *Id.* at 59.

⁵⁰ *Id.* at 134.

H. Invasive Species Management Plan

70. Terrestrial and aquatic invasive plants, including Eurasian water milfoil, honeysuckle, multiflora rose, and reed canary grass, occur within the project boundary. Invasive plants can displace native plant species, adversely affect water quality, and interfere with access to recreation facilities.

71. Wisconsin Public Service's proposed Invasive Species Management Plan includes measures for monitoring terrestrial invasive plants, but does not include measures for aquatic invasive plants. Due to the variety of invasive plants at the project, in the EA,⁵¹ staff recommended that the plan be modified to include the following: (1) monitoring methods to be used for aquatic invasive species; (2) the frequency of monitoring; and (3) criteria to be used to determine when control measures would be implemented. Article 409 requires Wisconsin Public Service to implement the proposed Invasive Species Management Plan with the additional staff-recommended measures.

I. Wood Turtle

72. Wood turtles, which are present in Lincoln County, inhabit the edge of wooded riparian corridors near open water, wooded upland habitats adjacent to open meadows, and forest openings. Wisconsin Public Service proposes to consult with Wisconsin DNR prior to conducting ground disturbing activities within habitat suitable for wood turtles. The measure is included in Wisconsin Public Service's proposed Wildlife Management Plan.

73. As discussed in the EA,⁵² staff determined that project operation and maintenance would not affect the wood turtle because it is not known to be present within the project boundary. For this reason, this license does not require the proposed Wildlife Management Plan or the measures to protect the wood turtles.

J. Bald Eagle Protection

74. Bald eagles are known to nest on the northern and southern ends of the project reservoir. Wisconsin Public Service's proposed construction of a connecting path from the Ice Age trail to a whitewater boating put-in site on the bypassed reach could disturb eagles during nest building, incubation, and fledging. Wisconsin Public Service proposes to follow FWS's National Bald Eagle Management Guidelines and consult with FWS if

⁵¹ *Id.* at 65-66.

⁵² *Id.* at 67.

the existing nests are encountered during project maintenance or construction. This measure is included in Wisconsin Public Service's proposed Wildlife Management Plan.

75. In the EA,⁵³ Commission staff recommended that Wisconsin Public Service develop a bald eagle management plan with measures to avoid or mitigate effects to nesting bald eagles within the project boundary. Staff determined that the plan would help ensure that any effects to bald eagles and their habitats caused by project operation or maintenance would be minimized. Article 410 requires the bald eagle management plan.

K. Recreation Plan

76. Recreation facilities at the project include the flowage boating area, Rock Falls boat landing, intake access, dam access, tailwater access, Ice Age Trail, portage trail, and scenic overlook. To enhance recreation opportunities, Wisconsin Public Service proposes to implement a Recreation Plan that contains provisions for: (1) continuing to operate and maintain existing recreation facilities; (2) removing rocks upstream of the flowage boat landing to improve access to the landing; (3) adding a portable toilet at the flowage boat landing, dam access, intake access, and tailrace access from Memorial Day to Labor Day; (4) providing up to three, 4-hour scheduled whitewater flow releases of 1,500 cfs into the bypassed reach between May 1 and June 21 each year, with a 2-hour ramp-up and a 2-hour ramp-down period; (5) monitoring the use of the flow releases; (6) constructing a path from the Ice Age Trail to an alternative put-in location downstream of the dam; (7) installing directional signage for boaters along the bypassed reach; (8) installing an informational kiosk at the dam access; and (9) developing a webpage with whitewater flow information.

77. In the EA,⁵⁴ staff determined that Wisconsin Public Service's proposed Recreation Plan would enhance recreation resources at the project and recommended that the proposed plan be implemented. However, staff also recommended certain modifications to measures in the Recreation Plan, as discussed below.

Recreation Flow Releases

78. To provide additional whitewater recreation opportunities in the project area, Wisconsin Public Service proposes to provide up to three, 4-hour scheduled recreation flow releases of 1,500 cfs, between May 1 and June 21 each year in the bypassed reach.

⁵³ *Id.* at 68-69 and 143-144.

⁵⁴ *Id.* at 82.

Interior and the Park Service recommend providing four recreation flow releases of 2,000 cfs, with a ramping rate of 10 percent between May 1 and June 30 each year. River Alliance recommends providing five recreation flow releases of 2,000 cfs, with an unspecified ramping rate, per year.

79. Currently, the bypassed reach is accessible for whitewater boating during flows provided by upstream run-off in spring months, typically in April and May; however, there is no information available concerning the amount of flow and the flows are unpredictable; therefore, boaters are unable to effectively plan for boating trips. In the EA,⁵⁵ Commission staff determined that there is a need for scheduled and predictable whitewater recreation opportunities in the project area. In evaluating the proposed and recommended whitewater flow releases, staff considered, among other things, the availability of sufficient inflows to the project to provide whitewater flow releases and potential adverse effects of the whitewater flows on fishery resources, including spawning smallmouth bass in the bypassed reach.

80. Although the Park Service's and River Alliance's recommended flow release schedule would provide flows that would appeal to more advanced boaters, those recommended flows would adversely affect smallmouth bass spawning in the bypassed reach. Further, staff determined that inflow to the project naturally decreases during summer months, reducing the likelihood that 2,000 cfs would be available for recreation flow releases.⁵⁶

81. In the EA,⁵⁷ staff determined that Wisconsin Public Service's proposal to limit flow releases from May 1 to June 21 would be beneficial because the flows would not affect spawning smallmouth bass, which typically occurs after June 21. However, in the EA,⁵⁸ staff recommended its alternative of providing up to one release of 1,800 cfs for 4 hours between May 1 and May 31 each year, and two 4-hour, 1,500-cfs releases before June 21, rather than Wisconsin Public Service's proposal of three, 4-hour scheduled releases of 1,500 cfs. In the EA,⁵⁹ staff determined that 1,800 cfs would provide an optimal whitewater boating experience, while 1,500 cfs would provide flows appropriate

⁵⁵ *Id.* at 87-89.

⁵⁶ *Id.*

⁵⁷ *Id.* at 87.

⁵⁸ *Id.*

⁵⁹ *Id.* at 87-89.

for novice through advanced whitewater boaters. Because the available flows naturally diminish during the summer, providing a one 4-hour recreation flow release of 1,800 cfs between May 1 and May 31 would increase the likelihood that the flow would be available. In addition, two 4-hour, 1,500-cfs releases before June 21 would provide opportunities for a range of whitewater boating skill levels. However, based on comments on the EA, staff recommends revising the staff alternative to provide a broader range of whitewater flow releases, as discussed below.

82. In its comments on the EA, the Park Service reduced its recommended whitewater flow release, based on flow availability during May and June, to three releases of 1,800 cfs each year. In addition, the Park Service states that the flow releases in June could be shortened if inflows are not sufficient to allow for the full 4-hour flow release duration.

83. As discussed in the EA,⁶⁰ seasonal inflows to the project in June would only support about 2 hours of 1,800 cfs releases for whitewater boating. Therefore, the Park Service's revised recommendation would, in most years, only minimally expand existing whitewater opportunities.

84. However, staff recommends revising the staff alternative recommended in the EA to provide for a range of recreation flow releases. Providing one flow release of 1,800 cfs in May, and up to two flow releases of 1,500 to 1,800 cfs between May 1 and June 21, based on available inflows, would allow for flexibility in scheduling the flow releases to maximize the duration of the release, as well as the quality of the whitewater boating experience. Therefore, Article 411 requires the revised staff-recommended whitewater flow releases for the Recreation Plan.

85. In comments on the EA, Wisconsin Public Service requests that the license include a contingency plan in the event that project inflow is insufficient to sustain a 4-hour recreation flow release. In the EA,⁶¹ staff discussed the benefit of implementing a contingency plan whereby Wisconsin Public Service would shorten the peak flow release period to 3 hours if sufficient flows are available, rather than cancelling the event. However, in the event that flows are not available to sustain a 3-hour recreation flow release, Wisconsin Public Service should cancel the event and notify the public via the project's whitewater boating webpage and information kiosk at the access site. Therefore, Article 411 requires this staff-recommended measure as a provision for the Recreation Plan.

⁶⁰ *Id.*

⁶¹ *Id.* at 89 and 139.

86. In the EA,⁶² staff recommended that an operation compliance monitoring plan for the project include provisions to monitor the whitewater releases required by the license. Article 402 includes this provision.

Ramping Rates

87. As stated above, Interior and the Park Service recommend a 10 percent ramping rate between May 1 and June 30 each year. Staff determined in the EA⁶³ that with a 10 percent ramping rate, it would take 10 hours to reach the desired flow, totaling 20 hours of ramping for a 4-hour event, and would not provide any practical benefit given the short duration of the recreation flow event. In addition, the 10 percent ramping rate would not reduce the stranding of fish in the bypassed reach compared to Wisconsin Public Service's proposed 2-hour ramp-up and ramp-down rate. Therefore, staff concluded that providing a 2-hour ramp-up and ramp-down rate, as proposed by Wisconsin Public Service, would maximize the number of times that recreationists can paddle the bypassed reach while avoiding negative effects on aquatic resources. Therefore, Article 405 requires a 2-hour ramp-up and ramp-down rate, as proposed by Wisconsin Public Service.

88. River Alliance recommends that Wisconsin Public Service inspect the bypassed reach for stranded fish and other aquatic life after each recreation flow release. Staff concluded in the EA⁶⁴ that Wisconsin Public Service's proposed ramping rates would be sufficient to prevent stranding of aquatic resources, and that there would be no need to inspect the bypassed reach for stranded fish. Therefore, this license does not require inspections of the bypassed reach.

Monitoring

89. As a provision in its proposed Recreation Plan, Wisconsin Public Service proposes to monitor recreation use at all project sites, including whitewater recreation, using the Licensed Hydropower Development Recreation Report (FERC Form-80). The Park Service and Interior recommend including a sign-in sheet for whitewater boaters on the kiosk to monitor use. The Park Service and Interior also recommend preparing an annual report on whitewater recreation use for the first 3 years of the scheduled releases, and subsequently every 6 years in conjunction with the FERC Form-80. The agencies

⁶² *Id.* at 81-89.

⁶³ *Id.* at 89.

⁶⁴ *Id.* at 56-57 and 97.

recommend distributing the report to the Park Service's Midwest Great Lakes Hydropower Coordinator and American Whitewater.

90. Staff determined in the EA⁶⁵ that providing a sign-in sheet for boaters on the kiosk would be useful for documenting whitewater boating use for the above mentioned report, especially during the first 3 years of implementing the scheduled releases. Therefore, staff recommended modifying Wisconsin Public Service's proposed kiosk measure to include a visible sign-in sheet and an explanation of the importance and rationale of paddlers signing in at each release. Staff also concluded that modifying the proposed webpage to state the importance of signing in would encourage boaters to comply, thereby allowing Wisconsin Public Service to better monitor recreation use at the whitewater recreation facilities.

91. Staff also concluded in the EA⁶⁶ that developing a report on whitewater recreation use that would summarize the numbers of participants at the scheduled recreation flow releases and describe any phenomena that may have affected participation levels (e.g., high normal flows or inclement weather), and distributing it to the above-listed entities, would help evaluate the effectiveness of the releases and quality of the whitewater boating experience, thereby informing ways to improve future scheduled releases. Article 411 requires the above staff-recommended modifications for the Recreation Plan.

Additional Whitewater Recreation Measures

92. Wisconsin Public Service proposes, as part of its Recreation Plan, to post the schedule for the whitewater releases on its website by April 1 of each year. In the EA,⁶⁷ staff determined that posting the release schedule would help boaters plan their trips, but also recommended posting the release schedule at the whitewater boating kiosk. Article 411 requires the proposed Recreation Plan to be modified to include these measures.

93. To address public safety for whitewater boating at the bypassed reach, Wisconsin Public Service proposes, as part of its Recreation Plan, to include on the proposed kiosk safety warnings for boating the bypassed reach and a Park Service phone number that would provide information on potential hazards within the bypassed reach. In the EA,⁶⁸ staff determined that providing the information would help boaters familiarize themselves

⁶⁵ *Id.* at 94-96.

⁶⁶ *Id.* at 90.

⁶⁷ *Id.* at 96.

⁶⁸ *Id.* at 94-97.

with the whitewater resource before entering the water. However, Wisconsin Public Service's proposal to include a Park Service telephone contact to obtain information about the hazards in the bypassed reach may not be effective. Staff determined that providing a visual depiction of the bypassed reach displayed on the kiosk, along with a brief description of any particular hazards within the bypassed reach, would ensure that boaters have accurate information, rather than being provided information via phone with no visual cues.

94. Therefore, staff recommended modifying Wisconsin Public Service's proposed kiosk to include: (1) a picture and description of the rock ledge between reaches 2 and 3; (2) a description of the characteristics of the bypassed reach; and (3) posting recreation flow release information for scheduled events each year on the kiosk, which would be located at the whitewater put-in site. Staff also concluded that modifying the proposed webpage to offer the same information proposed for the kiosk would inform boaters of flow conditions. Article 411 requires the above staff-recommended modifications to the Recreation Plan.

95. Wisconsin Public Service proposes as part of its Recreation Plan, and the Park Service and Interior recommend, that Wisconsin Public Service post the 2014 whitewater study, including the results of the preferred 2,000-cfs recreation flow release. As discussed in the EA,⁶⁹ staff determined that including the full report from the 2014 whitewater study would not serve a practical purpose, as it would not inform boaters of flow conditions or prepare them for a trip to the bypassed reach. Therefore, this license does not require the 2014 whitewater study be posted on the webpage.

96. In comments on the EA, the Park Service recommends including a reference to American Whitewater's website on the kiosk. However, the Park Service did not specify what project-related information would be available on American Whitewater's website that the project itself could not otherwise provide, or how specifically the information on the website would have a project-related benefit for whitewater boaters. Therefore, this license does not require the measure.

97. In comments on the EA, River Alliance states that Wisconsin Public Service should update its existing recreation brochure and locate it in off-site locations where the public would be able to access it. As stated in the EA,⁷⁰ the brochure would be unnecessary, because the information in the brochure would be redundant to the

⁶⁹ *Id.* at 96.

⁷⁰ *Id.* at 97.

information provided by the proposed information kiosk and whitewater boating website. Therefore, this license does not require the measure.

L. Ice Age National Scenic Trail

98. The 4.8-mile-long segment of the Ice Age Trail that passes through the Grandfather Falls Project includes about 3 miles of State Highway 107 and the County Road E bridge, which hikers use to cross the Wisconsin River. Instead of using the state highway and county road to cross the Wisconsin River, the Park Service and Interior recommend either: (1) the construction of a pedestrian crossing over the Grandfather Falls Project's dam infrastructure; or (2) the construction of a pedestrian bridge over the bypassed channel of the Wisconsin River. In comments on the EA, the Park Service reiterates its recommendation for Wisconsin Public Service to provide an alternative "off-road" river crossing to be used instead of the existing, "unofficial" route on the public highway and county bridge. The Park Service notes that the purpose of the National Trails System Act of 1968 is to provide continuous, extended routes, and that connecting routes, such as State Highway 107, are considered temporary until more appropriate "off-road" alignments become available.

99. In the EA,⁷¹ staff concluded that there is no evidence that an alternative river crossing is needed. Given that there are widened road shoulders on the highway and bridge for hikers, the existing route provides a sufficient river crossing. In addition, nearly 45 percent of the Ice Age Trail follows similar highway and county roads. Therefore, staff concluded that there would be no project-related benefit to constructing an alternative river crossing, and, as such, this license does not require an alternative river crossing.

M. Shoreline Management

100. As part of Wisconsin Public Service's Wildlife Management Plan, Wisconsin Public Service proposes to conduct visual inspections of the shoreline every 6 years, in conjunction with the FERC Form-80, and to remove or halt any non-conforming structures and/or uses that are identified within the project boundary. The Park Service and Interior recommend the visual inspections of the shoreline every 6 years, in conjunction with the FERC Form-80. River Alliance recommends a provision for a 200-foot-wide, no-cut shoreline buffer zone in which only diseased wood would be removed to protect the shoreline/riparian zone.

⁷¹ *Id.* at 98.

101. In the EA,⁷² staff concluded that the standard land use article included in all licenses would require Wisconsin Public Service to monitor project property for non-conforming structures to ensure that no unauthorized project and non-project uses or occupancies occur within the project boundary. Therefore, staff determined that including a separate license condition requiring the measure to conduct visual inspections every 6 years would be redundant and unnecessary. Further, River Alliance did not provide any evidence that project operation and maintenance is causing an adverse effect within the 200 feet of the shoreline. Therefore, staff did not recommend the buffer zone.

102. In comments on the EA, the Park Service recommends that a 200-foot-wide, no-cut buffer zone, with the exception of diseased wood, be established. The Park Service states that the ecological integrity of rivers and lakes are dependent upon a protected, natural shoreline, such as a riparian buffer. Further, the Park Service states that the land adjacent to the west side of the river provides a wilderness aesthetic view valuable to hikers and whitewater kayakers along this segment of the river. In comments on the EA, River Alliance continues to recommend a 200-foot-wide, no-cut buffer zone remain with the project boundary.

103. The Park Service and River Alliance have not provided any new evidence of adverse effects along the shoreline, as a result of project operation and maintenance, or that without a buffer zone, the viewshed of the project's shoreline would change. The license includes the standard land use article (Article 413) requiring Wisconsin Public Service to monitor project property for non-conformance structures, which should address non-project uses or occupancies that may affect the viewshed. Therefore, this license does not require a visual inspection of the shoreline every 6 years, in conjunction with the FERC Form-80; or a 200-foot-wide shoreline buffer zone.

N. Forest Management

104. There are currently over 2,900 acres of forest land within the project boundary. Wisconsin Public Service's proposed management practices for this land include: (1) implementing forest management practices consistent with Wisconsin DNR's Public Forest Lands Handbook 2416.5; (2) reporting tree damage, diseases, and other pests to Wisconsin DNR; (3) reporting unusual tree damage or insect outbreaks to Wisconsin DNR's Forest Health Specialist; and (4) consulting with Wisconsin DNR and the local fire entity regarding fire prevention and detection if needed. The proposed measures are part of Wisconsin Public Service's Wildlife Management Plan.

⁷² *Id.* at 100.

105. As discussed below, forested lands within the project boundary under the current license are not being included in the project boundary under the new license because the lands no longer serve a project-related purpose. Therefore, this license does not require the proposed Wildlife Management Plan or forest management practices.

O. Project Boundary

106. Wisconsin Public Service proposes to remove 2,053 acres of hardwood forest located east of Highway 107 from the project boundary. Because the area to be removed from the project boundary is used for non-project related forestry activities and hunting, and would not be needed for project operation and maintenance or to comply with the conditions of the license, staff concluded in the EA⁷³ that the proposed adjustments of the project boundary would be consistent with the Commission's regulations regarding lands that should be enclosed within a project boundary.

107. The existing project boundary also includes: 886 acres of hardwood forest located on the west side of the bypassed reach that are used for non-project related forestry activities and hunting; the bypassed reach; and a 0.1-acre island owned by BLM that is about 1,000 feet downstream of the tailrace access area, which are similarly not needed to fulfill the requirements of the license. In the EA,⁷⁴ staff determined that these lands and waters should also be removed from the project boundary, with the exception of the project's recreation facilities, including the Ice Age Trail, scenic overlook, intake access, portage trail, and proposed alternative put-in and access trail from the Ice Age Trail.

108. In comments filed on the EA, Wisconsin Public Service states that the amount of acreage, 886 acres,⁷⁵ is incorrect and should instead be 877 acres. Also, Wisconsin Public Service filed revised Exhibit G drawings that removes the 2,053 acres of forest.

⁷³ *Id.* at 99 and 141.

⁷⁴ *Id.* at 99.

⁷⁵ The amount of acreage, 886 acres, was discussed during a teleconference held on October 23, 2017. The summary of the teleconference was filed on October 26, 2017.

109. In its comment on the EA, the Park Service disagrees with staff's recommendation to remove the hardwood forest located on the west side of the bypassed reach from the project boundary. The Park Service recommends that land on the west side of the bypassed reach be retained in the project boundary in order to maintain the aesthetic view for recreationists.

110. In its comments on the EA, River Alliance states that Wisconsin Public Service's proposed removal of 2,053 acres and staff's recommended removal of the additional hardwood forest located on the west side of the bypassed reach from the project boundary could adversely affect aquatic resources because the land could be used for future development. River Alliance recommends that the EA analyze the cumulative effects resulting from the removal of the land on fish and wildlife habitats, water quality, and aesthetics.

111. The Park Service does not provide any additional information that would indicate that shoreline or aesthetic resources at the project are at risk of being altered. Also, River Alliance's assertion that the land would be developed is speculative, and it provides no specific information on how the removal of land from the project would result in cumulative adverse effects on fish and wildlife habitats, water quality, or aesthetics. Therefore, this license does not recommend keeping the forest on the west side of the bypassed reach or the 2,053 acres of hardwood forest located east of Highway 107 in the project boundary.

112. Although the revised Exhibit G drawings modify the project boundary and removed the 2,053 acres of forested land from the project boundary, the revised Exhibit G drawings still include the 886 acres of hardwood forest located on the west side of the bypassed reach, the bypassed reach, and the 0.1-acre island owned by BLM, which are not necessary for project operation, maintenance, or other project-related activities. Therefore, this license does not incorporate Wisconsin Public Service's revised Exhibit G drawings, filed on February 21, 2018.

113. Article 204 requires Wisconsin Public Service to file revised Exhibit G drawings that remove the 2,053 acres of hardwood forest, located east of Highway 107; the bypassed reach; the 0.1-acre island owned by BLM that is downstream of the tailrace access area; and hardwood forest located on the west side of the bypassed reach, with the exception of the land associated with the portion of the Ice Age Trail within the project boundary, as well as the flowage boat landing, Rock Falls boat landing, intake access, dam access, tailrace access, portage trail, and scenic overlook.

P. Potential Increased Precipitation Effects on Project Operation

114. In its comments on the EA, EPA recommends that the EA consider the effects of potential future increases in precipitation, flooding, and temperatures on the project, and recommends that adaptive measures be implemented to address these concerns.

115. The EA analyzes project effects on aquatic resources based on observed⁷⁶ hydrologic and water quality conditions using a flow record that includes 30 years of monitoring. Standard Article 15 of Form L-3, which is reproduced at the end of this license, allows the Commission on its own motion or upon the recommendation of a fish and wildlife agency, to reopen the license to consider any changes to the project needed to mitigate unforeseen adverse effects on fish and wildlife resources. Therefore, there is no need to revise the EA's aquatic resources analysis or to include adaptive management requirements in this license.

ADMINISTRATIVE PROVISIONS

A. Annual Charges

116. The Commission collects annual charges from licensees for administration of the FPA. Article 201 provides for the collection of funds for administration of the FPA.

B. Exhibit A - Project Description

117. Commission regulations require that licensees file an Exhibit A that is a description of the project and includes, in part, the physical composition, dimensions, and general configuration of any dams, spillways, penstocks and powerhouses to be included as part of the project. In April 2017, Wisconsin Public Service replaced two wooden penstocks with two new similar sized steel penstocks under its existing license. Exhibit A, filed on October 28, 2016, does not include a description and dimensions of the two new steel penstocks. Therefore, Exhibit A is not approved. Article 202 requires Wisconsin Public Service to file a revised Exhibit A.

⁷⁶ *Id.* at 29-32.

C. Exhibit F Drawings

118. Commission regulations require that licensees file Exhibit F drawings that consist of general design drawings of the principal project works. The drawings must show all major project structures in sufficient detail to provide a full understanding of the project.⁷⁷ As noted above, in April 2017, Wisconsin Public Service replaced two wooden penstocks with two new similar sized steel penstocks under its existing license. The two new steel penstocks were not included in the Exhibit F drawings filed on October 28, 2016; therefore, the Exhibit F drawings are not approved. Article 203 requires Wisconsin Public Service Hydro to file revised Exhibit F drawings.

D. Amortization Reserve

119. The Commission requires that for new major licenses, non-municipal licensees set up and maintain an amortization reserve account upon license issuance. Article 205 requires the establishment of the account.

E. Headwater Benefits

120. Some projects directly benefit from headwater improvements that were constructed by other licensees, the United States, or permittees. Article 206 requires the licensee to reimburse such entities for these benefits if they were not previously assessed and reimbursed.

F. Use and Occupancy of Project Lands and Waters

121. Requiring a licensee to obtain prior Commission approval for every use and occupancy of project land would be unduly burdensome. Therefore, Article 413 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.

G. Modification of Project Facilities

122. Article 301 requires the licensee to coordinate with the Commission's Division of Dam Safety and Inspections – Chicago Regional Office about any proposed modifications resulting from environmental requirements that would affect project works, dam safety, or project operation.

⁷⁷ 18 C.F.R. § 4.41(g)(1) (2017).

STATE AND FEDERAL COMPREHENSIVE PLANS

123. Section 10(a)(2)(A) of the FPA,⁷⁸ 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.⁷⁹ Under section 10(a)(2)(A), staff identified and reviewed 13 comprehensive plans relevant to this project.⁸⁰ No conflicts were found.

APPLICANT'S PLANS AND CAPABILITIES

124. In accordance with sections 10(a)(2)(C) and 15(a) of the FPA,⁸¹ staff evaluated Wisconsin Public Service's record as a licensee for these areas: (A) conservation efforts; (B) compliance history and ability to comply with the new license; (C) safe management, operation, and maintenance of the project; (D) ability to provide efficient and reliable electric service; (E) need for power; (F) transmission services; (G) cost-effectiveness of plans; and (H) actions affecting the public. This order adopts staff's findings in each of the following areas:

A. Conservation Efforts

125. Section 10(a)(2)(C) of the FPA 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. Wisconsin Public Service provides funding to the Wisconsin Focus on Energy Program which is designed to assist residents of the State of Wisconsin in implementing energy savings to their homes, businesses, and community. The Wisconsin Focus on Energy Program is a coordinated group of programs among electric and natural gas utilities of Wisconsin designed to help citizens make energy choices that yield the most value for the energy while protecting the environment.

⁷⁸ 16 U.S.C. § 803(a)(2)(A) (2012).

⁷⁹ Comprehensive plans for this purpose are defined at 18 C.F.R. § 2.19 (2017).

⁸⁰ The list of applicable plans can be found in section 5.4 of the final EA.

⁸¹ 16 U.S.C. §§ 803(a)(2)(C) and 808(a) (2012).

B. Compliance History and Ability to Comply with the New License

126. Based on a review of Wisconsin Public Service's compliance with the terms and conditions of the existing license, Wisconsin Public Service's overall record of making timely filings and complying with its license is satisfactory. Therefore, Wisconsin Public Service can satisfy the conditions of a new license.

C. Safe Management, Operation, and Maintenance of the Project

127. Commission staff reviewed Wisconsin Public Service's record of management, operation, and maintenance of the Grandfather Falls Project pursuant to the requirements of Part 12 of the Commission's regulations and the Commission's Engineering Guidelines. Staff concludes that the dam and other project works are safe and that there is no reason to believe that Wisconsin Public Service cannot continue to safely manage, operate, and maintain these facilities under a new license.

D. Ability to Provide Efficient and Reliable Electric Service

128. Staff has reviewed Wisconsin Public Service's plans and its ability to operate and maintain the project in a manner most likely to provide efficient and reliable electric service. Staff's review indicates that Wisconsin Public Service regularly inspects the project's turbine-generator units to ensure they continue to perform in an optimal manner, schedules maintenance to minimize effects on energy production, and since the project has been in operation, has undertaken several initiatives to ensure the project is able to operate reliably into the future. Therefore, Wisconsin Public Service is capable of operating the project to provide efficient and reliable electric service in the future.

E. Need for Power

129. To assess the need for power, staff looked at the need for power in the operating region in which the project is located. The Grandfather Falls Project serves the Midcontinent Independent System Operator, Inc. (MISO) a sub-region entity of the Midwest Reliability Organization (MRO), a region of the North American Electric Reliability Corporation (NERC), by providing 17.24 MW of capacity for local and regional power demand. NERC annually forecasts electrical supply and demand on a national and regional level for a 10-year period. NERC's most recent annual supply and demand projection for the MISO sub-region indicates that generation resources are projected to fall below the target of a 15.2 percent Anticipated Reserve Margin (i.e., the primary metric used to evaluate the adequacy of projected generation resources to serve forecasted peak load) to an Anticipated Reserve Margin of 13.89 percent in 2022 and continue to decrease to 9.07 percent by the year 2026. MISO would require approximately 8 gigawatts of additional generation resources by the end of the 10-year forecast to be able to maintain its planning reserve margin of 15.2 percent (NERC, 2016). Therefore, the project's power will help meet the regional need for power.

F. Transmission Services

130. The Grandfather Falls Project Falls Project power is transmitted from the powerhouse through 6.9-kV generator leads and two circuit breakers and step up transformers to a common 46-kV electrical line that is connected to an adjacent non-project substation via an approximately 300-foot-long overhead power line.

G. Cost Effectiveness of Plans

131. Wisconsin Public Service does not propose to change project operation or add new project facilities, but it does propose measures to enhance environmental resources affected by the project and to create an organized whitewater boating opportunity in the bypassed reach. Based on Wisconsin Public Service's record as an existing licensee, these plans are likely to be implemented in a cost-effective manner.

H. Actions Affecting the Public

132. Wisconsin Public Service provided opportunities for public involvement in the development of its application for a new license for the Grandfather Falls Project. In addition, during the previous license period, Wisconsin Public Service operated the project in a manner that supported recreation opportunities for the surrounding community and visitors to the area.

PROJECT ECONOMICS

133. In determining whether to issue a new license for an existing hydroelectric project, the Commission considers a number of public interest factors, including the economic

benefits of project power. Under the Commission's approach to evaluating the economics of hydropower projects, as articulated in *Mead Corp.*,⁸² the Commission uses current costs 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. In applying this analysis to the Grandfather Falls Project, staff considered three options: the no-action alternative, Wisconsin Public Service's proposal, and the project as licensed herein.

134. Under the no-action alternative, the project would continue to operate as it does now. Based on an installed capacity of 17.24 MW, the Grandfather Falls Project generates an average of 72,031.72 MWh of electricity annually. The average annual cost of alternative power is about \$2,289,888 or \$31.79/MWh. The average annual cost of producing this power, including depreciation, operation and maintenance costs, and taxes is about \$2,250,991 or \$31.25/MWh. Overall, the project would produce power at a cost that is \$38,897, or \$0.54/MWh, less than the cost of alternative power.

135. As proposed by Wisconsin Public Service, the project would have an installed capacity of 17.24 MW and generate an average of 71,869.72 MWh of electricity annually. The average annual cost of alternative power would be about \$2,284,738 or \$31.79/MWh. The levelized annual cost of operating the project including depreciation, operation and maintenance costs, and taxes would be about \$2,268,927 or \$31.57/MWh. Overall, the project would produce power at a cost that is \$15,811, or \$0.22/MWh, less than the cost of alternative power.

136. As licensed herein with mandatory conditions and staff measures, the project will have an installed capacity of 17.24 MW and generate an average of 71,857.72 MWh of electricity annually. The average annual cost of alternative power will be about \$2,284,357, or \$31.79/MWh. The levelized annual cost of operating the project including depreciation, operation, and maintenance costs, and taxes will be about \$2,260,644, or \$31.46/MWh. Therefore, in the first year of operation, the project will cost \$23,713, or \$0.33/MWh, less than the cost of alternative power.

137. 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 the ability to help maintain the

⁸² 72 FERC ¶ 61,027 (1995).

stability of the power system, such as by quickly adjusting power output to respond to rapid changes in the system load; and to respond rapidly to a major utility system or regional blackout by providing a source of power to help restart fossil-fuel based generating stations and put them back on line.

COMPREHENSIVE DEVELOPMENT

138. Sections 4(e) and 10(a)(1) of the FPA⁸³ require the Commission to give equal consideration to the 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 must 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.

139. The EA for the project contains background information, analysis of effects, and support for related license articles. Based on the record of this proceeding, including the EA and the comments thereon, licensing the Grandfather Falls 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.

140. Based on staff's independent review and evaluation of the Grandfather Falls Project, recommendations from the resource agencies and other stakeholders, and the no-action alternative, as documented in the EA, the project as licensed herein, is best adapted to a comprehensive plan for improving or developing the Wisconsin River.

141. This alternative is selected because: (1) issuance of a new license will serve to maintain a beneficial and dependable source of electric energy; (2) the required environmental measures will protect or enhance fish and wildlife resources, water quality, recreation, and cultural resources; and (3) the 17.24 MW of electric capacity comes from a renewable resource that does not contribute to atmospheric pollution.

LICENSE TERM

142. Section 15(e) of the FPA⁸⁴ provides that any new license issued shall be for a term that the Commission determines to be in the public interest, but not less than 30 years or

⁸³ 16 U.S.C. §§ 797(e) and 803(a)(1) (2012).

⁸⁴ 16 U.S.C. § 808(e) (2012).

more than 50 years. On October 19, 2017, the Commission established a 40-year default license term policy for original and new licenses, effective as of October 26, 2017.⁸⁵ The Policy Statement provides for exceptions to the 40-year default license term under certain circumstances: (1) establishing a shorter or longer license term if necessary to coordinate license terms for projects located on the same river basin; (2) deferring to a shorter or longer license term explicitly agreed to in a generally-supported comprehensive settlement agreement; and (3) establishing a longer license term upon a showing by the license applicant that substantial voluntary measures were either previously implemented during the prior license term, or substantial new measures are expected to be implemented under the new license.

143. In a letter filed on December 19, 2017, Wisconsin Public Service stated that the replacement of both of the project's deteriorating and leaking woodstave penstocks with steel-coated penstocks in 2017 at a substantial cost warrants an exception to the 40-year default license term and on that basis, requests a 50-year license.⁸⁶

144. Because the two penstocks were replaced on account of deterioration and leakage, the replacement of the two penstocks is considered a maintenance activity. The Policy Statement specifically excludes "maintenance measures" from consideration under the third exception noted above.⁸⁷ Therefore, because none of the above exceptions apply in this case, a 40-year license for the Grandfather Falls Project is appropriate.

The Director Orders:

(A) This license is issued to Wisconsin Public Service Corporation (licensee) to operate and maintain the Grandfather Falls Hydroelectric Project, effective May 1, 2018, for a period of 40 years. This license is subject to the terms and conditions of the Federal Power Act (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.

⁸⁵ *Policy Statement on Establishing License Terms for Hydroelectric Projects*, 161 FERC ¶ 61,078 (2017) (Policy Statement); 82 Fed. Reg. 49,501 (2017).

⁸⁶ In its December 19, 2017 filing, Wisconsin Public Service noted that, "over time, the wood stave penstocks' condition deteriorated causing significant leakage during operation. The result was a loss of volume of water to the powerhouse."

⁸⁷ *Id.*

(B) The project consists of:

(1) All lands, to the extent of the licensee's interests in these lands, described in the project description and the project boundary discussion of this order.

(2) Project works consisting of: (1) the 340-acre Grandfather Falls reservoir at elevation 1,397.1 feet National Geodetic Vertical Datum 1929 and a usable storage capacity of 340 acre-feet; (2) a 36-foot-high, 762-foot-long reinforced concrete dam consisting of a 52-foot-long masonry retaining wall, a 263-foot-long concrete spillway section, a 147-foot-long non-overflow masonry dam, and a 300-foot-long rockfill embankment; (3) a 108-foot-long, 12-foot-wide timber (concrete pier supported) canal bridge that crosses the upstream end of the canal, three intake canal embankments totaling 3,400 feet in length, a 4,000-foot-long, 300-foot-wide intake canal and a 55.5-foot-wide intake structure; (4) two 55.5-foot-wide, 30.5-foot-high trashracks with clear bar spacing of 2.5 inches; (5) an 11-foot-diameter, 1,313-foot-long steel penstock that transitions into a 30-foot-long steel penstock and a 13-foot-diameter, 1,307-foot-long steel penstock that transitions into a 30-foot-long steel penstock; (6) a 51-foot-diameter surge tank with a 37.87-foot-high internal riser and a 39-foot-diameter surge tank with a 33.43-foot-high internal riser that are connected to the steel penstocks; (7) a 67-foot-wide, 53-foot-long, 46-foot-high powerhouse containing two generating units with a total installed capacity of 17.24 megawatts; (8) a 50-foot-long, 60-foot-wide bedrock excavated tailrace; (9) a 300-foot-long, 46-kilovolt overhead power line; and (10) appurtenant facilities.

(3) All of the structures, fixtures, equipment or facilities used to operate or maintain the project, 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, F, and G filed as part of the application for license do not conform to Commission regulations and are 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. § 1341(a)(1) (2012), as those conditions are set forth in Appendix A to this order.

(E) This license is also subject to the articles set forth in Form L-3, (October 1975), entitled "Terms and Conditions of License for Constructed Major Project Affecting Navigable Waters of the United States" (*see* 54 F.P.C. 1792 *et seq.*), as reproduced at the end of this order, and the following additional articles:

Article 201. Administrative Annual Charges. The licensee must pay the United States annual charges, effective the first day of the month in which the license becomes effective, and as determined in accordance with provisions of the Commission's

regulations in effect from time to time, for the purposes 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 17.24 megawatts.

Article 202. *Exhibit A.* Within 90 days of the date of issuance of this license, the licensee must file with the Commission, for approval, a revised Exhibit A that includes a general description and dimensions of the two new steel penstocks. The Exhibit A must comply with section 4.41 (b) of the Commission's regulations.

Article 203. *Exhibit F Drawings.* Within 45 days of the date of issuance of this license, the licensee must file with the Commission, for approval, revised Exhibit F drawings that include the two new similar sized steel penstocks. The Exhibit F drawings must comply with sections 4.39 and 4.41 (g) of the Commission's regulations.

Article 204. *Exhibit G Drawings.* Within 90 days of the date of issuance of this license, the licensee must file with the Commission, for approval, revised Exhibit G drawings that: (1) enclose within the project boundary all principal project works necessary for operation and maintenance of the project; (2) remove: (a) about 2,053 acres of hardwood forest from the project boundary, located east of Highway 107, (b) about 886 acres of hardwood forest located on the west side of the bypassed reach used for non-project related forestry and hunting activities, (c) the bypassed reach, and (d) a 0.1-acre island owned by the Bureau of Land Management located about 1,000 feet downstream of the tailrace access area; and (3) enclose all existing and new project recreation sites, as identified in Article 411. In addition, each Exhibit G drawing must be stamped by a registered land surveyor and comply with sections 4.39 and 4.41 (h) of the Commission's regulations.

Article 205. *Amortization Reserve.* Pursuant to section 10(d) of the Federal Power Act, a specified reasonable rate of return upon the net investment in the project must be used for determining surplus earnings of the project for the establishment and maintenance of amortization reserves. The licensee must set aside in a project amortization reserve account at the end of each fiscal year one half of the project surplus earnings, if any, in excess of the specified rate of return per annum on the net investment. To the extent that there is a deficiency of project earnings below the specified rate of return per annum for any fiscal year, the licensee must deduct the amount of that deficiency from the amount of any surplus earnings subsequently accumulated, until absorbed. The licensee must set aside one-half of the remaining surplus earnings, if any, cumulatively computed, in the project amortization reserve account. The licensee must maintain the amounts established in the project amortization reserve account until further order of the Commission.

The specified reasonable rate of return used in computing amortization reserves must be calculated annually based on current capital ratios developed from an average of 13 monthly balances of amounts properly included in the licensee's long-term debt and proprietary capital accounts as listed in the Commission's Uniform System of Accounts.

The cost rate for such ratios must be the weighted average cost of long-term debt and preferred stock for the year, and the cost of common equity must be the interest rate on 10-year government bonds (reported as the Treasury Department's 10-year constant maturity series) computed on the monthly average for the year in question plus four percentage points (400 basis points).

Article 206. Headwater Benefits. If the licensee's project was directly benefited by the construction work of another licensee, a permittee, or the United States on a storage reservoir or other headwater improvement during the term of the prior license (including extensions of that term by annual licenses), and if those headwater benefits were not previously assessed and reimbursed to the owner of the headwater improvement, the licensee must reimburse the owner of the headwater improvement for those benefits, at such time as they are assessed, in the same manner as for benefits received during the term of this new license. The benefits will be assessed in accordance with Part 11, Subpart B, of the Commission's regulations.

Article 301. Project Modification Resulting from Environmental Requirements. If environmental requirements under this license require modification that may affect the project works or operation, the licensee must consult with the Commission's Division of Dam Safety and Inspections—Chicago Regional Engineer. Consultation must allow sufficient review time for the Commission to ensure that the proposed work does not adversely affect the project works, dam safety, or project operation.

Article 401. Project Operation. The licensee must at all times maintain the Grandfather Falls Reservoir within a maximum daily fluctuation of 1.0 foot or less from the normal pool elevation of 1,397.1 feet National Geodetic Vertical Datum 1929.

The operational requirement may be temporarily modified if required by operating emergencies beyond the control of the licensee or for short periods upon mutual agreement between the licensee and Wisconsin Department of Natural Resources. If the operational requirement is so modified, the licensee must notify the Commission as soon as possible, but no later than 10 days, after each such incident.

Article 402. Operation Monitoring Plan. Within one year of the date of issuance of this license, the licensee must file with the Commission, for approval, a revised Operation Monitoring Plan that includes, at a minimum, the provisions of the Operation Monitoring Plan filed on October 28, 2016, and the following:

(1) a detailed description of how project facilities will be operated to provide the whitewater boating flow releases to the bypassed reach required by Article 411; and

(2) a detailed description of the methods and procedures that will be used to monitor the whitewater flow releases, including a description of the types and locations of all flow monitoring equipment, and the frequency that the whitewater boating flows will be measured to verify the accuracy of the monitoring equipment.

The Commission reserves the right to require changes to the plan. Upon Commission approval, the licensee must implement the plan, including any changes required by the Commission.

If there are any deviations with the operational requirements of the license, the licensee must notify the Commission as soon as possible, but no later than 10 days, after each such incident.

Article 403. *Minimum Flow Downstream of the Project Tailrace.* The licensee must operate the project to maintain a minimum flow of 400 cubic feet per second (cfs), or inflow, whichever is less, immediately downstream of the project tailrace to protect water quality and fishery resources in the Wisconsin River. The 50-cfs minimum flow release for the bypassed reach required by Article 404 may contribute to the 400-cfs, or inflow if less, requirement.

The minimum flow requirement may be temporarily modified if required by operating emergencies beyond the control of the licensee or for short periods upon mutual agreement between the licensee and Wisconsin Department of Natural Resources. If the minimum flow is so modified, the licensee must notify the Commission as soon as possible, but no later than 10 days, after each such incident.

Article 404. *Minimum Flow in the Bypassed Reach.* The licensee must operate the project to release a minimum flow of 50 cubic feet per second, or inflow, whichever is less, from Grandfather Falls Dam into the bypassed reach of the Wisconsin River.

The minimum flow requirement may be temporarily modified if required by operating emergencies beyond the control of the licensee or for short periods upon mutual agreement between the licensee and Wisconsin Department of Natural Resources. If the minimum flow is so modified, the licensee must notify the Commission as soon as possible, but no later than 10 days, after each such incident.

Article 405. *Ramping Rates.* The licensee must implement a 2-hour up-ramping and 2-hour down-ramping duration for each whitewater boating flow release provided to the Grandfather Falls bypassed reach, as required by Article 411.

Article 406. *Woody Debris Management Plan.* The Revised Woody Debris Management Plan, filed on October 28, 2016, is approved and made part of this license and may not be amended without prior Commission approval. Upon license issuance, the licensee must implement the Revised Woody Debris Management Plan.

Article 407. *Reservoir Drawdown Management Plan.* The Revised Reservoir Drawdown Management Plan, filed on October 28, 2016, is approved and made part of this license and may not be amended without prior Commission approval. Upon license issuance, the licensee must implement the Revised Reservoir Drawdown Management Plan.

Article 408. Northern Long-eared Bat Protection Measures. The licensee must implement the following measures to protect northern long-eared bat habitat:

(1) avoid the cutting, trimming, or destruction of trees of 3 inches or greater in diameter within the project boundary from April 1 through October 31, unless they pose an immediate threat to human life or property;

(2) if tree cutting, trimming or destruction is required for project construction or maintenance from April 1 through May 31 or August 1 through October 31, Wisconsin Public Service must consult with, and receive approval from, United States Fish and Wildlife Service prior to the proposed action; and

(3) where trees need to be removed, only remove trees between November 1 and March 31.

Article 409. Invasive Species Management Plan. Within one year of the date of issuance of this license, the licensee must file with the Commission, for approval, a revised Invasive Species Management Plan that includes the provisions of the Invasive Species Management Plan, filed on October 28, 2016, with the following additional provisions:

(1) a description of monitoring methods for aquatic invasive plant species;

(2) the frequency of monitoring for aquatic invasive plant species;

(3) the criteria to be used to determine when control measures would be implemented; and

(4) a schedule for filing monitoring reports with Wisconsin Department of Natural Resources (Wisconsin DNR).

The licensee must prepare the plan after consultation with Wisconsin DNR. The licensee must include with the plan documentation of consultation, copies of comments and recommendations on the completed plan after it has been prepared and provided to Wisconsin DNR, and specific descriptions of how Wisconsin DNR's comments are accommodated by the plan. The licensee must allow a minimum of 30 days for Wisconsin DNR to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing must include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the plan. Upon Commission approval, the licensee must implement the plan, including any changes required by the Commission.

Article 410. Bald Eagle Management Plan. Within one year of the date of issuance of this license, the licensee must file with the Commission, for approval, a Bald Eagle Management Plan to avoid and minimize effects of construction and maintenance of existing and new project recreation sites, as identified in Article 411, to nesting bald

eagles in the project boundary. The plan must include, but not necessarily be limited to, the following:

- (1) a description of the measures to avoid or mitigate for effects to nesting bald eagles within the project boundary; and
- (2) an explanation of how the plan considers United States Fish and Wildlife Service's (FWS) *2007 Bald Eagle Management Guidance*.

The licensee must prepare the revised plan after consultation with FWS. The licensee must include with the plan documentation of consultation, copies of comments and recommendations on the completed plan after it has been prepared and provided to FWS, and specific descriptions of how FWS's recommendations are accommodated by the plan. The licensee must allow a minimum of 30 days for FWS to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing must include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the plan. Upon Commission approval, the licensee must implement the plan, including any changes required by the Commission.

Article 411. Recreation Plan. Within one year of the date of issuance of this license, the licensee must file with the Commission, for approval, a revised Recreation Plan that includes the provisions of the Recreation Plan filed on October 28, 2016, with the exception of posting the 2014 recreation flow study on the whitewater boating webpage and the provision to post a National Park Service telephone contact on the information kiosk, and the following additional provisions:

(1) recreation flow releases, including one 4-hour scheduled whitewater flow release of 1,800 cubic feet per second (cfs), between May 1 and May 31, and two 4-hour scheduled releases of 1,500 to 1,800 cfs, between May 1 and June 21, each year;

(2) in the event that project inflow is insufficient to sustain the 4-hour recreation release, the flow release period may be shortened to 3 hours, rather than cancelling the event. However, in the event that flows cannot sustain a 3-hour recreation release, the event may be cancelled and the public must be notified via the project's whitewater boating webpage and information kiosk at the Grandfather Falls Dam access site;

(3) the proposed information kiosk, to be located at the whitewater put-in site, must include: (a) a map panel of the bypassed reach that includes a general description of the bypassed reach features, indicates the put-in and take-out locations and portage routes, (b) a picture and description of the rock ledge between reaches 2 and 3, (c) the schedule for the whitewater flow releases by April 1 of each year, (d) general whitewater boating safety guidelines, (e) a visible sign-in sheet and an explanation of the importance

and rationale of paddlers signing in before each release, and (f) the link for Wisconsin Public Service's whitewater boating webpage;

(4) modify the whitewater boating webpage to include the information posted at the kiosk;

(5) conceptual drawings for the proposed path from the Ice Age Trail to downstream of the Grandfather Falls Dam;

(6) notification to the National Park Service's Midwest Great Lakes Hydropower Coordinator and American Whitewater of the scheduled recreation flow release dates by April 1 each year; and

(7) an annual report of whitewater boating use that summarizes the numbers of users for each scheduled recreation flow release and describes any phenomena that may have affected participation levels (e.g., high normal flows or inclement weather) during each scheduled recreation flow release for the first 3 years of scheduled releases, and subsequently every six years in conjunction with the Licensed Hydropower Development Recreation Report.

The licensee must prepare the revised plan after consultation with the National Park Service and Wisconsin Department of Natural Resources. The licensee must include with the plan documentation of consultation, copies of comments and recommendations on the completed plan after it has been prepared and provided to the agencies, and specific descriptions of how the agencies' recommendations are accommodated by the plan. The licensee must allow a minimum of 30 days for the agencies to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing must include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the plan. Upon Commission approval, the licensee must implement the plan and schedule, including any changes required by the Commission.

Article 412. Programmatic Agreement and Historic Properties Management Plan. The licensee must implement the "Programmatic Agreement Among the Federal Energy Regulatory Commission, Advisory Council on Historic Preservation, 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 Continued Operation of Hydroelectric Projects in the State of Wisconsin and Adjacent Portions of the State of Michigan," executed on December 16, 1993, and including, but not limited to, the Historic Properties Management Plan (HPMP) for the project, filed on October 28, 2016, and approved herein. In the event that the Programmatic Agreement is terminated, the licensee shall continue to implement the provisions of its approved HPMP. The Commission reserves the authority to require changes to the HPMP at any time during the term of the license.

Article 413. 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, that action includes, if 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 type of use and occupancy of project lands and waters 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, that 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 will be adequate to control erosion at the site, and (3) determine that the proposed construction is needed and will not change the basic contour of the impoundment 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 impoundment. No later than January 31 of each year, the licensee shall file 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 5 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 file a letter with the Commission, 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 Commission's authorized representative, 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 lands and waters.

(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 will be filed for approval for other purposes.

(g) The authority granted to the licensee under this article shall not apply to any part of the public lands and reservations of the United States included within the project boundary.

(F) The licensee must serve copies of any Commission filing required by this order on any entity specified in the order to be consulted on matters relating to that filing. Proof of service on these entities must accompany the filing with the Commission.

(G) This order constitutes final agency action. Any party may file a request for rehearing of this order within 30 days from the date of its issuance, as provided in section 313(a) of the Federal Power Act, 16 U.S.C. § 8251 (2012), and section 385.713 of the Commission's regulations, 18 C.F.R. § 385.713 (2017). 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. The licensee's failure to file a request for rehearing must constitute acceptance of this order.

Terry L. Turpin
Director
Office of Energy Projects

Form L-3
(October, 1975)

FEDERAL ENERGY REGULATORY COMMISSION

**TERMS AND CONDITIONS OF LICENSE FOR CONSTRUCTED
MAJOR PROJECT AFFECTING NAVIGABLE
WATERS OF THE UNITED STATES**

Article 1. 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.

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

Article 6. In the event the project is taken over by the United States upon the termination of the license as provided in Section 14 of the Federal Power Act, or is transferred to a new licensee or to a nonpower licensee under the provisions of Section 15

of said Act, the Licensee, its successors and assigns shall be responsible for, and shall make good any defect of title to, or of right of occupancy and use in, any of such project property that is necessary or appropriate or valuable and serviceable in the maintenance and operation of the project, and shall pay and discharge, or shall assume responsibility for payment and discharge of, all liens or encumbrances upon the project or project property created by the Licensee or created or incurred after the issuance of the license: Provided, That the provisions of this article are not intended to require the Licensee, for the purpose of transferring the project to the United States or to a new licensee, to acquire any different title to, or right of occupancy and use in, any of such project property than was necessary to acquire for its own purposes as the Licensee.

Article 7. The actual legitimate original cost of the project, and of any addition thereto or betterment thereof, shall be determined by the Commission in accordance with the Federal Power Act and the Commission's Rules and Regulations thereunder.

Article 8. The Licensee shall install and thereafter maintain gages and stream-gaging 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 gages 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 gages, 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 gages, meters, or other measuring devices, and the method of operation thereof, as are necessary to secure adequate determinations. The installation of gages, 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 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.

Article 9. 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 10. 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.

Article 11. Whenever the Licensee is directly benefited by the construction work of another licensee, a permittee, or the United States on a storage reservoir or other headwater improvement, the Licensee shall reimburse the owner of the headwater improvement for such part of the annual charges for interest, maintenance, and depreciation thereof as the Commission shall determine to be equitable, and shall pay to the United States the cost of making such determination as fixed by the Commission. For benefits provided by a storage reservoir or other headwater improvement of the United States, the Licensee shall pay to the Commission the amounts for which it is billed from time to time for such headwater benefits and for the cost of making the determinations pursuant to the then current regulations of the Commission under the Federal Power Act.

Article 12. The United States specifically retains and safeguards the right to use water in such amount, to be determined by the Secretary of the Army, as may be necessary for the purposes of navigation on the navigable waterway affected; and 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 Secretary of the Army may prescribe in the interest of navigation, and 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 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 Secretary of the Army may prescribe in the interest of navigation, or as the Commission may prescribe for the other purposes hereinbefore mentioned.

Article 13. 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 14. In the construction or maintenance of the project works, the Licensee shall place and maintain suitable structures and devices to reduce to a reasonable degree the liability of contact between its transmission lines and telegraph, telephone and other signal wires or power transmission lines constructed prior to its transmission lines and not owned by the Licensee, and shall also place and maintain suitable structures and devices to reduce to a reasonable degree the liability of any structures or wires falling or obstructing traffic or endangering life. None of the provisions of this article are intended to relieve the Licensee from any responsibility or requirement which may be imposed by any other lawful authority for avoiding or eliminating inductive interference.

Article 15. 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 16. 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. 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 17. The Licensee shall construct, maintain, and operate, or shall arrange for the construction, maintenance, and operation of such reasonable recreational facilities, including modifications thereto, such as access roads, wharves, launching ramps, beaches, picnic and camping areas, sanitary facilities, and utilities, giving consideration

to the needs of the physically handicapped, and shall comply with such reasonable modifications of the project, as may be prescribed hereafter by the Commission during the term of this license upon its own motion or upon the recommendation of the Secretary of the Interior or other interested Federal or State agencies, after notice and opportunity for hearing.

Article 18. 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 19. 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 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 20. 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 21. Material may be dredged or excavated from, or placed as fill in, project lands and/or waters only in the prosecution of work specifically authorized under the license; in the maintenance of the project; or after obtaining Commission approval, as appropriate. Any such material shall be removed and/or deposited in such manner as to reasonably preserve the environmental values of the project and so as not to interfere with traffic on land or water. Dredging and filling in a navigable water of the United States shall also be done to the satisfaction of the District Engineer, Department of the Army, in charge of the locality.

Article 22. Whenever the United States shall desire to construct, complete, or improve navigation facilities in connection with the project, the Licensee shall convey to

the United States, free of cost, such of its lands and rights-of-way and such rights of passage through its dams or other structures, and shall permit such control of its pools, as may be required to complete and maintain such navigation facilities.

Article 23. The operation of any navigation facilities which may be constructed as a part of, or in connection with, any dam or diversion structure constituting a part of the project works shall at all times be controlled by such reasonable rules and regulations in the interest of navigation, including control of the level of the pool caused by such dam or diversion structure, as may be made from time to time by the Secretary of the Army.

Article 24. The Licensee shall furnish power free of cost to the United States for the operation and maintenance of navigation facilities in the vicinity of the project at the voltage and frequency required by such facilities and at a point adjacent thereto, whether said facilities are constructed by the Licensee or by the United States.

Article 25. The Licensee shall construct, maintain, and operate at its own expense such lights and other signals for the protection of navigation as may be directed by the Secretary of the Department in which the Coast Guard is operating.

Article 26. 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 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 27. 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.

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Article 28. 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.

APPENDIX A

Wisconsin Department of Natural Resources
Water Quality Certification Conditions
Issued January 16, 2018

1. The licensee shall obtain and comply with all federal, state, and local permits; if obtaining such permits does not conflict with FERC license requirements.
2. The licensee shall meet current State of Wisconsin water quality standards applying to this project.
3. The licensee shall allow the Department to inspect the project area at any time upon reasonable notification to monitor compliance with certification conditions.
4. The licensee shall work with the Department to ensure proper compliance with the state endangered species law.
5. When FERC issues the new license, the licensee shall consult with the Department concerning any changes or modifications to the following management plans: Aquatic Resource, Woody Debris, Invasive Species, Recreation, Operations and Drawdown Plan.
6. The Department may modify or revoke this certification if the project is not completed and maintained according to the terms of the certification, or if the Department determines the activity is detrimental to the public interest.
7. Your acceptance of this certification signifies that you have read, understood and agreed to follow all conditions of this certification.
8. This certification does not authorize any activities other than what is included in the FERC approved license articles and management plans.
9. Licensee development within the FERC project boundary shall conform to the local zoning ordinances and the standards for floodplain and shoreland development contained in Chapters NR 115, NR 116, NR 117, Wis Adm. Code, as long as these requirements do not conflict with FERC license requirements.
10. This State Water Quality Certification is valid for the term of the license. This State Water Quality Certification may be updated or modified throughout the term of the license, as deemed necessary by the Department.

Document Content(s)

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