UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Wisconsin Public Service Corporation) Project No. 2433-004

ORDER ISSUING NEW LICENSE
(Major Project)
(Issued May 7, 1997)

I. INTRODUCTION

Pursuant to Part I of the Federal Power Act (FPA), 16 U.S.C. 791 § et seq., applications for new licenses were filed with the Commission for continued operation and maintenance of four existing hydroelectric projects on the Menominee River in Michigan and Wisconsin. 1/ On October 11, 1996, Commission staff issued a final Environmental Impact Statement (EIS) that evaluated environmental resource impacts resulting from the continued operation of the four projects, and recommended specific measures to enhance these resources.

Concurrently with this order, I am issuing companion license orders for the remaining three Menominee River projects. I find that each of the projects with the environmental enhancement measures that I am requiring will be best adapted to the comprehensive development of the Menominee River.

II. BACKGROUND

Wisconsin Public Service Corporation (WPSC or licensee) filed for a new license, pursuant to Section 15 of the FPA, 16 U.S.C. § 807, for the continued operation of the 7.0-megawatt (MW) Grand Rapids Project, located on the Menominee River, 2/ in Marinette County, Wisconsin and Menominee County, Michigan. The project, as proposed by WPSC, would produce about 39.9 gigawatt-hours (GWh) of electricity annually. WPSC proposes no new capacity and no new construction at the Grand Rapids

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1/ The projects and license applicants are as follows:

Little Quinnesec Falls Project, No. 2536, Niagara of Wisconsin Paper Corporation; Chalk Hill Project, No. 2394, and White Rapids Project, No. 2357, Wisconsin Electric Power Company; and Grand Rapids Project, No. 2433, Wisconsin Public Service Corporation.

2/ The pertinent portion of the Menominee River is a navigable waterway of the United States. Section 23 (b) of the FPA, 16 U.S.C. § 817 (b), therefore, requires that the project be licensed. 3 FPC page 449 (1943).

Project. The original license for this project expired on December 31, 1993. 3/ Since then, WPSC has operated the project under annual license. 4/

Notice of the application was published on March 5, 1993. Four motions to intervene were filed in response to the notice; all were granted. 5/

The entities listed below filed untimely motions to intervene on the following dates: Michigan Hydro Relicensing Coalition and Izaak Walton League, which filed jointly on October 27, 1994; and River Alliance of Wisconsin, February 13, 1996. On December 15, 1994, WPSC requested that the Commission deny the jointly filed motions to intervene of Michigan Hydro Relicensing Coalition and Izaak Walton League. However, the Michigan Hydro Relicensing Coalition, the Izaak Walton League and River Alliance of Wisconsin have an interest in the proceeding that is not represented by any other party, and their late interventions will not delay or disrupt the proceeding.

No agency, organization, or individual filed a motion to intervene in opposition to the project. All comments received have been fully considered in determining whether or under what conditions to issue this license.

The Commission staff issued a draft EIS for this project on November 27, 1995. Comments on the draft EIS were addressed in the final EIS. Staff also prepared a Safety and Design Assessment, which is available in the Commission's public file for this project.

III. PROJECT DESCRIPTION

The existing Grand Rapids Project consists of: a 31-foot-high, 1,402-foot-long, concrete core earth fill dam; a reservoir with a surface area of 300 acres; a reinforced concrete

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3/ The Commission issued the original license for the Grand Rapids Project on August 20, 1965. See 58 FPC, ¶ 2771.

4/ See Section 15 (a)(1) of the FPA, 16 U.S.C. § 808 (a)(1).

5/ The entities listed below filed timely motions to intervene on the following dates: Wisconsin Department of Natural Resources (Wisconsin DNR), March 11, 1993; the Department of the Interior (Interior), April 8, 1993; Scott Paper Company, April 23, 1993; and Michigan Department of Natural Resources (Michigan DNR), April 26, 1993.

powerhouse containing five generating units with a total capacity of 7.0 megawatts (MW); a 3,200-foot-long power canal; and appurtenant facilities. The lands within the project boundary total about 2,832 acres, located in Wisconsin and Michigan.

The licensee has historically operated the project in a run-of-river mode, producing about 40.8 GWh of electricity annually. WPSC proposes to continue to operate the project in a run-of-river mode, generating about 39.9 GWh of electricity annually.

A more detailed project description is presented in ordering paragraph B(2).

IV. LICENSEE'S PLANS AND CAPABILITIES

In accordance with Sections 10 and 15 of the FPA, staff evaluated WPSC's record as a licensee for these areas: (1) conservation efforts; (2) ability to comply with the new license; (3) safe management, operation, and maintenance of the project; (4) ability to provide efficient and reliable electric service; (5) need for power; (6) transmission line improvements; (7) project modification; and (8) compliance record. I accept the staff's findings in each of these areas.

Here are the findings.

1. Conservation Efforts

WPSC is making a good faith effort to conserve electric energy by: (1) implementing least cost plans that meet the requirement of the Public Service Commission of Wisconsin (PSCW); (2) conducting on-site energy audit services; and (3) offering a financial assistance program that includes a combination of moderate interest loans, rebates, and shared savings. This efficiency program is augmented by a rate program that has all customers over 200 kW on time-of-use/demand rates, and it also offers these rates to 90 percent of the remaining customers.

2. Ability to Comply with the New License

WPSC's license application demonstrates its ability to comply with the articles, terms, and conditions of any license issued, and with other applicable provisions of the FPA.

WPSC has, or can acquire, the resources and expertise necessary to carry out and comply with all articles, terms, and conditions of a new license.

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

WPSC owns and operates the Grand Rapids Project. The project dam and appurtenant facilities are subject to Part 12 of the Commission's Regulations concerning project safety. Staff reviewed WPSC's management, operation, and maintenance of the project pursuant to the requirements of Part 12 and the associated Engineering Guidelines, including all applicable safety requirements such as warning signs and boat barriers, Emergency Action Plan, and Independent Consultant's Safety Inspection Report. Staff concludes that the project is being safely managed, operated, and maintained.

4. Ability to Provide Efficient and Reliable Electric Service

WPSC ensures the efficiency and reliability of its electrical service by implementing an equipment maintenance program. WPSC has conducted studies to determine the feasibility of increasing the generating capacity of the plant. The licensee has determined that it is not economically feasible to increase the project's generating capacity at this time. The studies show that water use at the project is fully developed and that no expansion of the project and no change in operating mode is justified. The project currently uses all river flows that are available 78 percent of the time.

After reviewing the record of the licensee and its ability to provide efficient and reliable electric service, staff concludes that WPSC has operated the project in an efficient manner and will continue to provide efficient and reliable electric service in the future.

5. Need for Power

To assess the need for power, staff reviewed WPSC's use of the project power to date and in the future, together with that of the operating region in which the project is located.

The Grand Rapids Project is located in the Mid-American Interconnected Network (MAIN) region of the North American Electric Reliability Council (NERC). NERC annually forecasts electrical supply and demand in the nation and the region for a

10-year period. NERC's most recent report 6/ on annual supply and demand projections shows that, for the period 1995-2004, loads in the MAIN area will keep pace with planned capacity additions, resulting in unchanged reserve margins. These margins, though relatively stable, will remain below 20 percent throughout the forecast period.

The Grand Rapids Project has historically generated an annual average of 40.8 GWh of low-cost power for WPSC. In addition, project power displaces nonrenewable fossil-fired generation and contributes to diversification of the generation mix in the MAIN area.

The present and future use of the project's power, its low cost, its displacement of nonrenewable fossil-fired generation and contribution to a diversified generation mix support a finding that the power from the Grand Rapids Project will help meet a need for power in the MAIN area in the short- and long-terms. 7/

6. Impact of Relicensing on the Licensee's Transmission System

Relicensing the project would not have an adverse effect on the licensee's transmission system. Failure to relicense the project would result in increased transmission losses of about 0.13 MW and a decrease in bus voltage because of the loss of project power generation. As a result, WPSC would incur a greater voltage drop during off-peak periods in remote portions of its service area. The existing transmission system is sufficient and no changes to service would occur regardless if the project is relicensed.

7. Whether the Licensee's Plans will be Achieved in a Cost-Efficient Manner

WPSC's plans to operate the project in a run-of-river mode and to implement various other environmental modifications. These plans can be achieved in a cost-effective manner. The project, as presently constructed and as the licensee proposes to operate it, fully develops and uses the economical hydropower potential of the site.

6/ Electric Supply and Demand 1995-2004, Summary of Electric Utility Supply and Demand Projections (June 1995).

7/ See final EIS at page 1-3.

8. Compliance Record

WPSC's overall record of making timely filings and compliance with its license has been satisfactory. WPSC has generally complied with the terms and conditions of its original license. As of April 5, 1995, WPSC had paid all annual charges for which it had been billed.

V. WATER QUALITY CERTIFICATION

Under Section 401(a)(1) of the Clean Water Act, 33 U.S.C. § 1341(a)(1), the Commission may not issue a license for a hydroelectric project unless the state certifying agency has either issued water quality certification for the project or has waived certification by failing to act on a request for certification within a reasonable time, not to exceed one year.

The Grand Rapids Project is located in the States of Michigan and Wisconsin. Because the powerhouse discharges into the Menominee River on the Michigan side of the boundary, the State of Michigan has Section 401 authority in this case.

WPSC, on July 22, 1991, requested water quality certification for the Grand Rapids Project from Michigan DNR. No reply was received within the one-year response period. Therefore, the Section 401 water quality certification is deemed waived for this project.

VI. COASTAL ZONE MANAGEMENT ACT

Under Section 307(c)(3)(A) of the Coastal Zone Management Act (CZMA), the Commission cannot issue a license for a hydroelectric power 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 (which has been approved by the Secretary of Commerce), or the agency's concurrence is conclusively presumed by its failure to act within 180 days of its receipt of the applicant's certification.

WPSC, on October 2, 1995, requested CZMA certification from the State of Wisconsin.

On June 3, 1996, Wisconsin Department of Administration (WDA) stated that, because it had not provided comments within the required time frame, federal consistency concurrence with the Wisconsin Coastal Management Program should be presumed.

WPSC also requested CZMA certification from the State of Michigan on October 2, 1995. Therefore, the review period ended on March 29, 1996. Michigan Department of Environmental Quality (Michigan DEQ) responded to WPSC's CZMA certification request on March 14, 1996. In its letter of March 14, 1996, Michigan DEQ concluded that, although the project is located outside of Michigan's coastal boundary, the operation at the facility directly affects coastal fishery resources and habitat by affecting spawning and nursery habitat of lake sturgeon. The agency, therefore, determined relicensing to be reviewable for federal consistency purposes and submitted the following conditions under which the relicensing would be consistent with the Michigan Coastal Management Program:

(1) the project is operated in run-of-river mode;

(2) flow rates through the spillway are consistent with the recommendations of the fish and wildlife agencies (134 cfs from June 1 through approximately mid-April, and 800 cfs from approximately mid-April through May 31); and,

(3) the facility is licensed in compliance with the terms and conditions of the state's 401 water quality certificate.

This order requires the project to operate in a run-of-river mode; and to release a minimum flow of 134 cfs from June 1 to the "spring spawning date," and 800 cfs from the "spring spawning date" through May 31. This order, however, does not require the licensee to meet state mandated Section 401 water quality certificate conditions because no Section 401 conditions were received and the Section 401 water quality certificate was deemed waived for this project.

Because the approved project will be licensed with conditions requested by the Michigan Department of Natural Resources for federal consistency purposes, I conclude that issuing this license with the assigned conditions will adequately protect and enhance coastal resources.

VII. SECTION 18 OF THE FPA - FISHWAY PRESCRIPTION

Section 18 of the FPA authorizes the Secretary of the Interior or the Secretary of Commerce to prescribe fishways at Commission-licensed projects. 8/

Interior, by letter dated December 1, 1994, filed the following measures pursuant to Section 18 for the Grand Rapids Project.

A. Fish Passage at the Powerhouse

1. Upstream Fish Passage

Interior prescribed that the licensee develop and implement, at its own expense, an upstream fish passage plan, developed in consultation with resource agencies. The plan, at a minimum, shall include these measures:

(1) the construction, operation, and maintenance of a permanent upstream fishway at the powerhouse of the Grand Rapids Project (the upstream fishway shall not become operational until safe downstream fish passage is assured);

(2) a monitoring plan to evaluate the effectiveness of the fishway, including provision to make reasonable modifications to improve the effectiveness of the fishway based on the results of the monitoring;

(3) an operation and maintenance plan and schedule for the fishway; and

(4) a provision that Interior personnel be allowed access to the project site and to pertinent records for the purpose of documenting compliance with the fishway prescription.

This prescription does not specify the type of fishway to be constructed and requires the licensee to conduct studies to identify a technically feasible facility to allow upstream passage of lake sturgeon. Therefore, staff conducted research to determine whether upstream fish passage facilities targeting lake sturgeon had ever been designed and successfully implemented at

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8/ Section 18 of the FPA states: "The Commission shall require the construction, maintenance, and operation by a licensee at its own expense...such fishways as may be prescribed by the Secretary of Commerce or the Secretary of the Interior, as appropriate."

other locations. The research, including discussions with known experts in the United States and Canada, revealed that no passage system had been successfully designed and tested. Staff concluded, based on existing information, that there appears to be no technically feasible method available to achieve upstream passage of this fish species.

Because Interior's recommendation did not specify that fishway facilities be installed at this project, staff concluded in the final EIS that Interior's upstream fish passage condition is not a valid Section 18 prescription. However, staff recommended that the Commission reserve Interior's authority to prescribe the installation of an upstream fishway for lake sturgeon at the Grand Rapids Project in the future.

In its November 15, 1996 comment letter on the final EIS, Interior withdrew its Section 18 prescription for upstream fish passage at the Grand Rapids Project. It did so in recognition that research on methods for passing lake sturgeon is ongoing, and therefore an upstream prescription is premature. This determination by Interior affirms staff's recommendation that it is not appropriate at this time to require upstream passage facilities at this project.

Therefore, I am not requiring the licensee to prepare a plan leading to the construction of upstream fish passage facilities at the Grand Rapids powerhouse. I am, however, including Article 408, which reserves Interior's authority to prescribe fishways in the future.

2. Downstream Fish Passage

Interior also prescribed that the licensee develop and implement, at its own expense, a downstream fish passage plan, developed in consultation with the resource agencies. The plan, at a minimum, shall include these measures:

(1) the construction, operation and maintenance of a permanent downstream fishway and associated bypass facility;

(2) a monitoring plan to evaluate the effectiveness of the fishway, including provision to make reasonable modifications to improve the effectiveness of the fishway based on the results of the monitoring;

(3) an operation and maintenance plan and schedule for the fishway; and

(4) a provision that Interior personnel be allowed access to the project site and to pertinent records for the purpose of documenting compliance with the fishway prescription.

Interior's plan also stipulates downstream fish passage measures that should be evaluated for applicability to the project, including modular inclined screens, punch plate screens, and louvers. These measures should be evaluated, in consultation with the agencies, for their engineering feasibility, including site-specific hydraulic characteristics and effects on project/unit hydraulics and operation, and effectiveness at safely passing target species and life history stages. The evaluation process should involve computer modeling, laboratory evaluations, and construction and assessment of an on-site prototype facility, as appropriate.

I accept Interior's prescription for downstream fish passage at the powerhouse as valid in accordance with Section 18 of the FPA. Therefore, Article 409 requires WPSC, as a condition of license issuance, to prepare and implement a downstream fish passage plan at the Grand Rapids Project powerhouse.

B. Reservation of Authority to Prescribe Fishways at the Spillway Channel

In its letter dated December 1, 1994, Interior requested that the Commission reserve its authority to prescribe the construction, operation, and maintenance of fishways at the Grand Rapids Project spillway pursuant to Section 18 of the FPA.

The Commission recognizes that future fish passage needs cannot always be determined at the time of project licensing. The Commission's practice has been to include a license article that reserves the Secretary of the Interior's authority to prescribe facilities for fish passage. 9/ Therefore, consistent with Commission practice, Article 408 of this license reserves the Commission's authority to require the licensee to construct, operate, and maintain such fishways as may be prescribed by the Secretary of the Interior pursuant to Section 18 of the FPA.

9/ The Commission has specifically sanctioned the reservation of fishway prescription authority at relicensing. See Wisconsin Public Service Corporation, 62 FERC ¶ 61,095 (1993); affirmed, Wisconsin Public Service Corporation v. FERC, 32 F.3d 1165 (1994).

VIII. RECOMMENDATIONS OF STATE AND FEDERAL FISH AND WILDLIFE AGENCIES

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

Wisconsin DNR, Michigan DNR, and Interior filed numerous fish and wildlife recommendations pursuant to Section 10(j) of the FPA. 10/ The new license issued herein contains conditions consistent with the agencies' recommendations that WPSC implement the following measures.

(1) Operate the project in a run-of-river mode (Article 401).

(2) Develop and implement a gaging and compliance plan (Article 404).

(3) Maintain automatic water level sensors at the headwater and tailwater (Article 404).

(4) Maintain a daily record of project operation on a 60-minute basis (Article 404).

(5) Coordinate with agencies on all emergency and planned maintenance drawdowns (Article 406).

(6) Conduct a downstream fish passage study, and prepare and implement a downstream fish passage plan at the powerhouse (Article 409).

(7) Sluice downstream all large woody debris (Article 410).

(8) Implement bald eagle management guidelines (Article 413).

10/ A number of recommendations do not qualify for processing under Section 10(j) because they involve studies that could have been performed prior to licensing, or do not otherwise qualify as specific measures to protect, mitigate damages to, or enhance fish and wildlife. These were instead considered under Section 10(a)(1), pursuant to which the Commission considers all aspects of the public interest.

(9) Preserve large canopy trees for bald eagle and other raptors, and periodically consult with agencies on locations of nesting sites (Article 413).

(10) Cooperate with Wisconsin DNR on formulation and implementation of a purple wartyback mussel recovery plan (Article 412).

(11) Implement a program to monitor and control the spread of purple loosestrife and Eurasian milfoil in the flowage (Article 411).

(12) Consult routinely with the agencies for input regarding decisions affecting wildlife management on project lands, and cooperate in conducting wildlife surveys on project lands (Article 413).

(13) Develop and implement a wildlife management plan (Article 413).

(14) Implement a land management plan (Article 414).

(15) Maintain a 200 foot no-timber-harvest buffer zone around the project flowage (Article 414).

Pursuant to Section 10(j), Commission staff made a preliminary determination in the draft EIS for the Menominee River projects that several resource agency recommendations that were considered to be within the scope of Section 10(j) were inconsistent with the purpose and requirements of Part I of the FPA. If the Commission finds that any such 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 the inconsistency, giving due weight to the recommendations, expertise, and statutory responsibilities of such agencies. If the Commission then does not adopt a recommendation, it must explain how the recommendation is inconsistent with applicable law and how the conditions selected by the Commission adequately and equitably protect, mitigate damages to, and enhance fish and wildlife.

A meeting was held on April 22 and 23, 1996 to attempt to resolve any Section 10(j) inconsistencies. At the meeting, Commission staff and the agencies resolved many, but not all, of the inconsistencies. A number of other issues not identified in the draft EIS as Section 10(j) inconsistencies, but of concern to the fish and wildlife agencies, also were discussed at the meeting.

On October 11, 1996, the Commission issued the final EIS for the Menominee River projects. Subsequent to issuance of the final EIS, the fish and wildlife agencies filed letters with the Commission dated November 12, 1996 (Michigan DNR), November 8, 1996 (Wisconsin DNR), and November 15, 1996 (Interior). These letters raised a number of concerns regarding staff's recommendations in the final EIS. The agencies also requested another 10(j) meeting and subsequent issuance of a revised or supplemental final EIS.

In the following paragraphs, I address each of the substantive issues discussed at the Section 10(j) meeting or raised in the agencies' final EIS comment letters.

1. Determine Operational Compliance

The resource agencies recommended the following measures related to operational compliance monitoring that were not fully adopted in the draft or final EIS.

(1) Run-of-river compliance would be based on data from U.S. Geological Survey (USGS) gages to be installed upstream and downstream of the project, with outflows measured immediately downstream of the tailrace being within ± 5 percent of project inflow, corrected for time of travel and accretion. The licensee would be responsible for funding or providing for these gages. The agencies further recommended that the downstream gage be equipped with telemetering capabilities.

(2) The licensee would install and maintain a telemetered USGS-type gage in the bypassed channel to verify minimum flow releases from the project spillway; and also provide a staff gage in the channel, visible to public and calibrated to a stage-discharge relationship.

(3) Michigan DNR recommended a telemetered continuous level recording device on the reservoir.

Staff concluded in the draft EIS that a combination of reservoir elevation and power output data would provide a more accurate measure of run-of-river operations than upstream and downstream gages. There are a number of reasons why the recommendation would not achieve its purpose. First, when comparing flow records from two different gages, one must account for gage inaccuracies, which can deviate from the actual flow by as much as 10 to 20 percent. Second, one must account for evaporation, groundwater accretion and infiltration, which change in accordance with local and regional weather conditions and can

vary on a daily or even hourly basis. Third, one must account for the time of travel, which varies according to stream flow.

At the Section 10(j) meeting, the agencies expressed a concern that, without an independent source of flow data, there would be no means to verify the headwater and power generation information provided by the licensee to verify project run-of-river operation.

Staff agreed in the final EIS that an upstream gaging station could assist in determining the accuracy of the combined headwater/power generation method for monitoring compliance with run-of-river operation. Staff, therefore, recommended that the licensee install and operate an upstream gaging device for a 2-year period as an independent means to determine the accuracy of staff's monitoring method.

Regarding the spillway channel monitoring and gages, the draft EIS recommended that the staff gage be required but not the USGS-type gage. At the Section 10(j) meeting, the licensee stated that it intends to install a valved pipe (or pipes) in the spillway gate to provide the year-round minimum release; and release the minimum spring flow through a Taintor gate, which can be marked to verify the release flow. The resource agencies acknowledged that a valved pipe (or pipes) could be sized to provide a guaranteed flow; and that a USGS-type gage in the spillway channel is not necessary for compliance measurement. The agencies, however, suggested that the licensee develop detailed compliance measures for spillway channel flows in a bypassed flow plan. Staff concurred with this approach.

Regarding Michigan DNR's recommended telemetered reservoir level gage, staff concluded in the final EIS that this gage is not necessary. This license requires WPSC to maintain automatic water level sensors in the reservoir and tailwater, and to maintain a record of project operation, including water levels, on an hourly basis. It also requires WPSC to install a reservoir staff gage clearly visible to the public. These measures are adequate for operational compliance documentation, and the additional costs for a continuous telemetered reservoir gage would not be commensurate with any benefits that might be gained. Consequently, I am not requiring this gage.

Therefore, Article 401 requires that run-of-river compliance for the Grand Rapids Project be measured utilizing reservoir and tailwater surface elevations and power generation records. Article 405 requires the licensee to install a USGS-type gage upstream of the project in conjunction with a 2-year study to

determine the accuracy of the resultant compliance measurements for verifying run-of-river operation.

Article 403 requires the licensee prepare and implement a bypassed flow plan addressing how it will provide bypassed flows and how it will monitor compliance with the required bypassed flow conditions as specified in Article 402.

2. Target Reservoir Elevation Recommendations

Michigan DNR recommended that summer and winter reservoir elevation targets be tied to specific dates: May 1 to October 31, and November 1 to April 30, respectively. Wisconsin DNR and Interior recommended that WPSC maintain a target reservoir elevation of 664.95 feet National Geodetic Vertical Datum (NGVD) during the ice-free season, and 664.45 feet NGVD during the winter season.

In the draft EIS, staff agreed with the proposed summer and winter reservoir elevation targets (see Article 401), but they disagreed with the recommendation to adhere to strict calendar dates.

At the Section 10(j) meeting, staff suggested, and the resource agencies agreed, that the resource agencies and the licensee develop a more flexible approach for implementing seasonal target elevation changes. This approach should reflect actual weather conditions and be included in the project's operational compliance plan.

Therefore, Article 404 requires, as part of the operational compliance plan for this project, that the licensee, in consultation with the resource agencies, develop procedures triggering seasonal reservoir elevation changes.

3. Provide Minimum Flows in the Spillway Channel

Michigan DNR and Wisconsin DNR recommended that WPSC provide the following minimum flow releases in the project's bypassed channel downstream of the project spillway: 800 cfs from April 15 through May 31; and 134 cfs during the remainder of the year. The higher flows recommended during the April 15 through May 31 period would protect incubating lake sturgeon eggs deposited in the bypassed channel.

In the draft EIS, staff recommended a flow release of 75 cfs from June 1 through April 14 rather than the agencies' recommended 134 cfs flow. Staff's rationale was that the agencies' recommended flow was based largely on conservative

criteria and applied to nonrepresentative cross sections in the study reach and on species' life stages that would find only limited use in the bypassed reach regardless of flow. Staff concluded that the agencies had not provided evidence that instream flows greater than 75 cfs would benefit fish resources.

At the Section 10(j) meeting, staff indicated, based on information received on the draft EIS, staff now concluded that the agencies' proposed 134 cfs would provide greater enhanced environmental conditions than the 75 cfs flow achieved by staff's draft EIS recommendation. Although staff believed that the agencies' evidence was extremely conservative, staff acknowledged that the agencies did provide sufficient evidence to demonstrate that their recommended instream flow release would provide greater benefits to target fish species inhabiting the bypassed reach. Therefore, staff, in the final EIS, recommends that the licensee provide a flow of 134 cfs during the June 1 through April 14 period.

In addition, staff recommended in the draft EIS a step-wise flow release for the April 15 through May 31 period, starting at 400 cfs and increasing to 800 cfs when average daily flows discharged from the spillway exceed 2,000 cfs for four consecutive days. Staff's rationale for its recommended flow release was based on the finding that, during eight of 10 years, spring flows of 2,000 cfs or higher are achieved, justifying the 800 cfs flows to protect deposited eggs from being desiccated. However, when spring flows do not reach 2,000 cfs, sturgeon would not have spawned in this location, negating the need for the 800 cfs flow. In those years, 400 cfs flows would be sufficient.

At the Section 10(j) meeting, staff and the resource agencies discussed their respective positions regarding the need for 800 cfs during the April 15 through May 31 period. After considerable discussion, staff and the agencies agreed that a specific date triggering increased bypassed flows each year is not a preferred means to implement the 800 cfs release. Staff and the agencies agreed that water temperature represents a superior criterion for determining the need for increased flows.

Based on this agreement, the final EIS recommends that 800 cfs should be provided in the spillway channel for fish spawning and incubation purposes on April 15, provided that the average daily water temperature at the spillway has exceeded 10°C for two consecutive days. If water temperature has not increased to 10°C by April 15, the 800 cfs release should be delayed until such time that it occurs. The 800 cfs flow should be provided from that time through May 31, when sturgeon egg incubation is complete.

During years of low flow, there also needs to be a mechanism for prioritizing flow between the spillway channel and tailrace. This issue can best be addressed through annual consultation between the resource agencies and the licensee, including the results of the effectiveness study being required as part of Article 403.

Therefore, Article 402 requires that the licensee release a minimum instream flow of 134 cfs to the bypassed channel from June 1 through about April 14, of each year. The licensee shall increase the minimum flow in the spillway channel to 800 cfs on or after April 15, of each year, when water temperature exceeds 10°C for two consecutive days. The 800 cfs flow shall be provided through May 31 of each year.

Article 403 requires the licensee to consult annually with the agencies regarding the distribution of flows between the channel and tailrace during years when low spring flows are predicted. These consultation requirements shall be included in the instream bypassed flow plan prepared by the licensee.

4. Ramp Flow Releases in the Spillway Channel

Michigan DNR and Wisconsin DNR recommended a ramping rate not to exceed 10 percent in any 24 hour period. In the draft EIS, staff concluded that the agencies' recommendation was too restrictive. Moreover, this ramping rate would require 17 days to downramp from 800 cfs to 134 cfs. In addition, staff concluded that the ramping rate should only apply to downramping events, since upramping of flow would not have an adverse impact on aquatic resources. Staff recommended, instead, that downramping in the spillway channel not exceed one inch per hour. With this rate, downramping from 800 cfs to 134 cfs would require only 3.5 days.

At the Section 10(j) meeting, the resource agencies emphasized that the intent of this recommendation was to prevent the 800 cfs to 134 cfs flow change from occurring abruptly, which could cause fish stranding. Agencies and staff agreed to a ramping rate of no more than a 50 percent change in flow per day. For flows greater than 800 cfs, the ramping rate would not apply.

Therefore, Article 402 requires that no restrictions be imposed until flows in the bypassed channel decline below 800 cfs; then, flows shall be downramped at no more than a 50 percent decrease per day. This requirement shall be included in the bypassed flow plan to be prepared by the licensee.

5. Maintain Daily Record of Operation on a 30-minute Basis

The agencies recommended that WPSC maintain a daily record of project operation, including turbine operation, headwater and tailwater elevations, and flow releases through the powerhouse and spillway, and provide the data to the agencies upon request. Michigan DNR recommended data be collected on a 30-minute basis, while Wisconsin DNR and Interior recommended data collection on a 60-minute basis. WPSC's entire system operation data log currently records data on a 60-minute basis. Consequently, the licensee proposed to continue to record data within that time interval.

Staff determined in the draft EIS that WPSC's 60-minute interval for recording project operational data would provide sufficient information to monitor project operation, and, therefore, concluded that additional data would not lead to improved project operation.

At the Section 10(j) meeting, the resource agencies concurred with staff's conclusion that a 60-minute monitoring interval would provide adequate data to protect fish and wildlife resources.

Therefore, Article 404 requires that the licensee, as part of the project's operational compliance plan, record headwater, tailwater, and generation data on a 60-minute time interval basis. The plan will also require the licensee to establish provisions for providing this information to the agencies in a timely manner, when requested.

6. Pass River Inflow Instantaneously or Within a Few Minutes in Case of Plant Blackout

The agencies recommended that, in the case of plant blackout, WPSC reestablish flow instantaneously or within a few minutes in order to prevent the dewatering of aquatic resources downstream of the project.

The draft EIS supported the agency recommendation for ice-free periods, stating that downstream flows should be reestablished within 10 minutes or as soon as practicable, within the parameters of the project's safe operation. However, staff concluded that, during periods of ice cover, there should be no specific time requirements for reestablishing flows; instead, flows should be reinitiated as soon as practicable, at the discretion of the plant operators in a manner that does not pose a potential hazard to the public, operator safety, project equipment, or property.

At the Section 10(j) meeting, the agencies concluded that staff's recommendation for reestablishing flow during ice-free periods was acceptable. Staff and the agencies also concluded that specific procedures for reestablishing flow during periods of ice conditions should be developed as part of the operational compliance plan for the project, and that the plan should identify procedures to be taken by the plant operator necessary to reinitiate downstream flows as soon as practicable, while ensuring that gate operations would not pose the hazards noted above.

Therefore, Article 404 requires that procedures for reestablishing flows in case of project shutdown during periods of ice cover be included as an element of the project's operational compliance plan. Further, these procedures shall be developed in consultation with the resource agencies.

7. Water Quality Standards and Monitoring

Michigan DNR recommended that the licensee maintain state water quality standards for dissolved oxygen (DO) and temperature whenever river flow is greater than or equal to the 95 percent exceedance flow. Wisconsin DNR recommended that the licensee maintain state water quality standards for DO, pH, and temperature, except when natural conditions prohibit attainment of the standards.

Michigan DNR also recommended that the licensee prepare a plan to implement various water quality monitoring measures, including:

(1) monitoring DO continuously upstream and downstream of the dam from May 15 to October 15;

(2) monitoring temperature upstream and downstream of the dam year-round with frequencies to be determined by the resource agencies;

(3) monitoring temperature and DO profiles in the impoundment every two weeks from June 1 through August 31 and mid-month during February, April, September, and October;

(4) preparing and implementing a water/sediment/fish monitoring plan; and

(5) establishing procedures for mitigating conditions that deviate from state standards.

Wisconsin DNR recommended that the licensee implement water quality monitoring five years after license issuance that includes:

(1) DO, pH, and temperature readings in the project tailrace at 30-minute intervals between July 1 through September 30 and

(2) DO and temperature profiles of the reservoir using weekly intervals from July 1 through September 30.

Interior recommended that the licensee:

(1) maintain applicable state water quality standards for DO, temperature, pH, and other variables;

(2) monitor DO, temperature, and other water quality variables according to a schedule approved by the state agencies; and

(3) develop mitigation measures jointly with the state agencies that would be implemented if violations of the state surface water quality standards occur.

Michigan DNR's recommended monitoring program would be conducted each year for three years, after which time the frequency of monitoring could be modified, whereas Wisconsin DNR's monitoring program would be conducted at five year intervals over the term of the license.

In the draft EIS staff recommended that the Commission adopt the agencies' conditions for water quality standards and monitoring. The issue, as it pertains to the Grand Rapids Project, therefore, was not discussed at length at the 10(j) meeting.

In the final EIS, staff concluded that the combined water quality monitoring desired by the agencies is more extensive than needed to determine if the project complies with state water quality standards. I concur with staff that the combined monitoring recommended by the agencies appears to be more extensive than necessary at a project such as this where historical sampling has shown that water quality complies with standards. However, I am requiring in Article 407 that the licensee further consult with the agencies to determine the appropriate scope of water quality monitoring at this project. Because there are different, and sometimes conflicting, details associated with the Michigan DNR and Wisconsin DNR

recommendations, it is necessary that further consultation take place to develop an overall monitoring plan. 11/

Subsequent to further agency consultation, the licensee shall prepare and implement a water quality monitoring plan. Although the Commission will retain its authority to approve the plan, it is appropriate that any subsequent monitoring recommendations by Michigan and Wisconsin DNR be given due consideration. To be consistent with the Commission's balancing responsibilities under the FPA, however, any monitoring requested by the agencies should be within the overall scope and cost of their original Section 10(j) terms and conditions. These terms and conditions were deemed consistent with the FPA in the draft EIS, and, given the lack of further discussion at the Section 10(j) meeting, it is appropriate that they be the basis for Commission review of the plan required in Article 407.

It is apparent that a reasonable, cost-effective monitoring plan can be developed by the licensee and agencies that will satisfy the need to document compliance with water quality standards. By focusing on critical locations, parameters, and seasons, a plan can be readily developed that falls well within the overall scope and cost of the agencies' original recommendations.

Article 407 also includes Michigan and Wisconsin standards for DO, temperature, and pH, with the exception that Article 407 does not include the requirement that the water temperature downstream of the project not be raised by more than 5°F relative to the temperature upstream of the project. This approach is consistent with recent Commission policy established for similar projects in Michigan. 12/ Article 407 requires the licensee to

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11/ Providing for a post-licensing water quality monitoring plan that includes additional agency consultation regarding the details of the plan is consistent with recent Commission policy established for similar projects in Michigan [see Mead Corporation, Publishing Paper Division, 72 FERC ¶ 61,027 (1995)].

12/ See Mead Corporation, Publishing Paper Division, 72 FERC ¶ 61,027 (1995). Michigan DNR has provided no evidence of the need for this recommendation. Fish and aquatic resources residing downstream of the dam are affected by water temperatures occurring in their local habitat, rather than by any difference between temperatures there and upstream of the project. Maintaining average and maximum temperature standards, and minimum DO standards, downstream

establish procedures for consulting with the agencies to address water quality conditions that deviate from the standards included in the license.

8. Conduct an Effectiveness Analysis of Minimum Flows in the Bypassed Channel

Michigan DNR recommended that, following establishment of minimum flows in the spillway channel, the licensee conduct a study to determine the effectiveness of minimum flows in the bypassed channel by determining the amount of fish recruitment and fish and invertebrate biomass supported by the flows.

In the draft EIS, staff disagreed with this recommendation. Because the increased minimum flow in the bypassed channel would enhance habitat downstream of the project spillway, staff concluded that a post-licensing study of the release's effectiveness would not contribute to the improved operation of the project.

At the Section 10(j) meeting, the licensee stated that it was willing to conduct an effectiveness study to determine the benefits of providing increased bypassed flows. Site-specific knowledge of the effectiveness of increasing the bypassed flow on enhancing aquatic habitat could improve future project operation by providing an accurate estimate of habitat changes and fish population use of the affected bypassed reach. This analysis could provide an accurate accounting of the enhancement benefits achieved by increasing the bypassed flow volume and provide the licensee with a basis for future decisions regarding allocating flows to the bypassed reach or downstream of the project powerhouse. Staff recommended the study in the final EIS.

Therefore, Article 403 requires the licensee, in consultation with the resource agencies, to evaluate the effectiveness of the required minimum flows in the bypassed channel to enhance fish and other aquatic resources.

9. Implement Plans for Upstream and Downstream Passage at the Powerhouse

Michigan DNR and Wisconsin DNR recommended that the licensee prepare and implement upstream and downstream fish passage plans at the project powerhouse. Interior also prescribed upstream and downstream passage measures at the powerhouse in accordance with Section 18 of the FPA. In its letter of November 15, 1996,

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of the dam will adequately protect the fishery.

Interior subsequently withdrew its upstream passage prescription.

For reasons discussed in Section VII of this order, I am not requiring that WPSC install an upstream fish passage facility at the project powerhouse. When a technically and economically feasible means becomes available to provide lake sturgeon passage, the agencies may request reconsideration of this matter under their authority provided by Standard L-3 Form Article 15. The Secretary of the Interior may also prescribe fish passage facilities in the future under their reservation of authority to prescribe the installation of fishways provided in Article 408. The Secretary of Interior's mandatory prescription for downstream passage is included in Article 409.

10. Reserve the State Agencies' Authority to Require the Licensee to Provide Upstream and Downstream Fish Passage at the Spillway Channel

Michigan DNR and Wisconsin DNR recommended that the licensee, upon request of the resource agencies, prepare a plan to install upstream and downstream fish passage facilities at the project spillway.

In the draft EIS, staff did not adopt this recommendation, stating that no evidence was submitted to indicate the need for such facilities. In addition, the cost of providing a fish passage facility at this location would outweigh its benefits.

At the Section 10(j) meeting, the resource agencies clarified that their recommendation was not to install fish passage facilities at this time, but to reserve state authority to require the licensee to prepare a fish passage plan in the future, if deemed necessary. Staff stated that the Secretary of Interior is the only party that can be granted such reservation of authority. The state agencies may make such a request through the Secretary of Interior's Section 18 reservation of authority or by requesting project modification in accordance with Standard L-3 Form Article 15.

Accordingly, if Michigan DNR or Wisconsin DNR determines in the future that fish passage facilities are warranted at the spillway of the Grand Rapids Project, either resource agency's request for fish passage, including supporting documentation, should be submitted to the Commission for consideration under the

provisions provided for in Article 15 of Standard Form L-3 attached to this license. 13/

11. Emergency and Planned Maintenance Drawdowns

Michigan DNR and Wisconsin DNR recommended that WPSC be required to notify the resource agencies at least two months in advance of planned reservoir drawdowns. In the draft EIS, staff recommended that this be adopted as a condition of license issuance.

In draft EIS comment letters, however, the resource agencies concluded that two months would not provide adequate time for them to respond to notification of a planned drawdown.

At the Section 10(j) meeting, Michigan DNR stated that it would prefer that the licensee be required to develop and implement a post-license drawdown plan establishing procedures for both emergency and planned drawdowns. The plan should include appropriate time frames for notifying the agencies and provide a reasonable opportunity for their response. Staff concurred with this approach, and the final EIS recommends this measure.

Article 406 requires that the licensee prepare and file a reservoir drawdown plan that discusses when drawdowns would occur; their duration, frequency, and extent; describes other measures that are needed to avoid adverse impacts on the environment; and establishes coordination procedures among the licensee and the resource agencies regarding emergency and planned drawdowns.

12. No-Timber-Harvest Buffer Zone/Removal of Shoreline Trees

Interior recommended that a 200-foot "no cut" buffer zone be established along the project shoreline. The draft EIS supported this recommendation in general but added that selective timber removal for forest management purposes should be allowed.

At the Section 10(j) meeting, the resource agencies agreed with the draft EIS recommendation that flexible management within the buffer zone is appropriate. Therefore, Article 414 requires

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13/ Article 408 of this license reserves authority to the Commission to require the licensee to construct, operate, and maintain such fishways as may be prescribed by Interior pursuant to Section 18 of the FPA.

that, as part of its land management plan, WPSC establish a 200-foot no-timber-harvest buffer zone. Timber removal for the purpose of promoting forest health and achieving other wildlife management objectives will be allowed within this zone.

The agencies requested at the Section 10(j) meeting that the license include an article indicating that the licensee is not required to remove shoreline trees that fall down due to natural causes. Staff agreed that trees that fall in the reservoir should not be removed, unless they pose a hazard to project operation or safety. Standard Form L-3, Article 20 of the license requires the licensee to remove only dead trees that pose a hazard to project operation, public safety or navigation. 14/

13. Compensatory Mitigation for Unavoidable Fish Losses

Michigan DNR, Wisconsin DNR, and Interior also recommended that the licensee pay compensatory mitigation to the states at an amount equivalent to the restitution value of any lost fishery resources. 15/

In the draft EIS, staff concluded that fish resources found upstream and downstream of the Grand Rapids Project exhibit characteristics of healthy and vigorous populations and that project operation is not significantly affecting the fish resources of the river. Although WPSC's studies indicate that fish are subject to entrainment and increased mortality, 16/ there is no evidence that this loss of fish adversely affects fish populations or the quality of recreational fisheries. Based on this finding, staff concluded that the licensee should not be required to provide compensatory mitigation for turbine entrainment mortality.

Based on comments and additional information received on the draft EIS, staff indicated at the Section 10(j) dispute-

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14/ See Montana Power Company and Granite County, Montana, 62 FERC ¶ 61,166 at p. 62,140 (1993).

15/ The recommendations to fund, conduct, and complete a fishery damage assessment, or pay restitution value for lost fishery resources, are not within the scope of Section 10(j) because they are not specific measures for fish and wildlife protection.

16/ See pages C-4 and C-13 through C-15 of Appendix C in the draft EIS.

resolution meeting that it would recommend that, to compensate for turbine entrainment mortality, the licensee be required to fund measures consistent with fisheries management goals and plans for the Menominee River. The amount of annual funding recommended in the final EIS, based on an annual mortality rate of 7,882 fish 17/ and on replacement values for lost fish, is $4,000 (1996 dollars) for the Grand Rapids Project. 18/

However, the compensatory mitigation remedy lacks adequate evidentiary support. Both the draft and final EIS find that the projected mortality levels at the project, either individually or cumulatively, will not adversely affect fish populations. The draft EIS and final EIS each states, at pp. 4-3 and 4-4, respectively:

> Fish entrainment and turbine-induced mortality by the four projects would not significantly impact fisheries resources of the lower Menominee River. Only a small proportion of the fish entrained at each project dam would be killed by turbine passage, and the impacts of these losses would probably not have a substantial impact on the fish populations and recreational fisheries. Because of the fragmentation of the river by multiple dams and the absence of upstream passage facilities at these dams, there is currently no significant use of the river by anadromous fish that depend on upstream spawning migration past the existing dams and subsequent downstream dispersal of juveniles or adults through the same dams for completion of their life cycles. Therefore, there is no basis to conclude that fish surviving entrainment at any one project would be any more likely to become entrained at the next downstream dam. [19/]

17/ See Appendix C, p. C-4 and Table C-4 at p. C-15 of the final EIS.

18/ Id. at Table 5-13, p. 5-56.

19/ See also the respective Appendices C attached to the draft EIS and the final EIS, both entitled "Review and Extrapolation of Fish Entrainment and Turbine Mortality Study results for the Menominee River," and the respective findings of minor project impacts on fishery populations in the draft EIS and final EIS, respectively, at pp. 4-18 through 4-22 and 4-22 through 4-26.

Since fish mortality at the Grand Rapids Project has no significant adverse effect on the fishery resources, the compensatory mitigation requirement is not supported by substantial evidence, as required by Section 313 of the FPA, and therefore, is not being included in the new license for the Grand Rapids Project. 20/

14. Turtle and Mussel Surveys

The recommendations to conduct surveys and impact assessments for the wood and Blanding's turtles and freshwater mussels are not specific measures to protect fish and wildlife, and are requests for post-licensing studies that could have been conducted during the license application process.

At the Section 10(j) meeting, staff suggested that, instead of requiring surveys and conducting an impact analysis that would eventually be followed by management prescriptions to protect these turtle species, it would instead recommend that the project's shoreline be managed consistent with turtle protection guidelines. Therefore, Article 413 requires that the licensee, as part of the wildlife management plan, establish shoreline management measures to protect these turtles. 21/

At the Section 10(j) meeting, the agencies requested that the licensee conduct inventory surveys and impact analysis for three state-listed species of freshwater mussels. This recommendation was not included in their original terms and conditions for the Grand Rapids Project, although staff indicated at the meeting that it planned to recommend surveys for all four projects.

In the final EIS staff concluded that the mussel surveys are not necessary because these species would not be adversely affected by project operation. Mussel populations upstream of the Grand Rapids Project reservoir would be unaffected by project operation. The project's reservoir does not contain the kind of riffle habitat that mussels inhabit. Any mussel habitat that exists downstream of the project also would be unaffected by continued run-of-river operation. 22/ Consequently, staff

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20/ See City of New Martinsville v. FERC, 102 F.3d 567 (D.C. Cir. 1996).

21/ See final EIS at pages 4-63 and 4-64.

22/ See final EIS at page 4-59.

concluded that WPSC should not be required to conduct the surveys.

Staff does recommend that WPSC implement applicable provisions of the purple wartyback mussel recovery plan when it is completed by the agencies. To address agency concerns regarding mussel surveys and recovery plans, I am including Article 412 (purple wartyback mussel recovery plan) in this license. I am also providing for additional opportunity for future protection measures related to any federal and state threatened, endangered, or sensitive species, including mussels, in the wildlife management plan (Article 413).

15. Land Ownership and Management Issues

The recommendations that the licensee: (1) be required to retain and manage lands within the project boundary for public benefit over the course of the license, (2) continue to allow public use of project lands, and (3) provide to the agencies, prior to Commission approval, any proposal to remove project lands are not specific measures to protect fish and wildlife.

The Commission's standard special land use article (Article 418) and regulations governing project modifications will allow the licensee the opportunity to make changes to the project boundary during the license period, in consultation with the resource agencies. 23/ Standard Form L-3 Article 18 requires the licensee to continue allowing public use of project lands except in environmentally sensitive areas or in the immediate vicinity of project facilities that pose a threat to public safety. 24/ The Commission's standard land use article (Article 418) provides for agency consultation before the Commission approves project boundary or land use changes. 25/

Therefore, I find no need to require additional specific license articles to address these recommendations.

16. Erosion Inventory and Control

The recommendation that the licensee develop and implement a plan to inventory, control, and repair present and future erosion sites is not a specific measure to protect fish and wildlife. I

23/ See final EIS at page 5-56.

24/ See final EIS at page 4-65.

25/ See final EIS at page 5-56.

am not requiring that such a plan be developed because there is no evidence of widespread erosion at the project, and because the Standard Form L-3 Article 19 requires the licensee to take reasonable measures to prevent soil erosion. If major land-disturbing or land-clearing activities are proposed on project lands in the future, the licensee would be required to file a plan to control erosion, slope instability, and sedimentation with the Commission. 26/

17. Recreation Enhancements

The agencies' recommendations that the licensee: (1) provide for various recreation facilities enhancements; including specified barrier-free facilities; (2) continue to operate and maintain all recreation facilities associated with this project; (3) submit recreation facility designs to Michigan DNR and Wisconsin DNR for review; (4) implement all recreation enhancements in accordance with a schedule approved by the agencies; and (5) conduct periodic recreation reviews with the agencies are not measures to protect fish and wildlife.

Article 415 requires some, but not all of the eight recommended facility enhancements. 27/ Article 415 also requires the licensee to include a discussion in its plan of how the needs of the disabled are accommodated by the plan. Standard Form L-3 Article 17 indicates that the licensee is ultimately responsible for the operation and maintenance of all project recreation sites throughout the license period. WPSC, however, may elect to lease or subcontract the actual maintenance of the facilities, if desired. 28/ Regarding item 3 above, Article 415 requires the licensee to submit its recreation facility designs to Michigan DNR and Wisconsin DNR when it is preparing its final recreation plan. 29/

The recommendation for agency approval of the schedule conflicts with the Commission's authority to administer the license. Article 415 requires the licensee to prepare and file a final recreation plan specifying the recreation enhancements and schedule for their development. 30/ The plan and schedule must

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26/ See final EIS at page 4-48.

27/ See final EIS at pages 4-69 to 4-70; 4-73; and 5-57.

28/ See final EIS at pages 4-65 and 5-57.

29/ See final EIS at pages 4-70 and 5-57.

30/ See final EIS at pages 4-65 and 5-57.

be prepared in consultation with the agencies. Regarding recreation reviews, I am not requiring additional reviews beyond what is required pursuant to the Commission's regulations and the Form 80 reviews, which occur on a 6-year cycle. 31/

18. Compliance with Various State Statutes and Codes

Wisconsin DNR's recommendations that the licensee comply with chapters 30 and 31, Wisconsin Statutes and portions of NR 330, 333, and 116 of the Wisconsin Administrative Code are not specific measures to protect fish and wildlife resources. Moreover, federal authority preempts state regulations. I conclude that the Commission's safety regulations provide sufficient protective measures; therefore, this measure will not be included in the license. 32/

19. Project Decommissioning

The recommendation that the licensee conduct a study to determine the cost of project retirement, and establish a project retirement fund is not a specific measure to protect fish and wildlife resources.

In its December 14, 1994 Policy Statement on project retirement (RM93-23000), the Commission stated that:

> "In light of the practical problems involved in trying to deal with events far in the future, and because in many cases the time horizon and general financial strength of the licensee may be such that there is not substantial need for a pre-retirement funding program, the Commission will not act generically to impose such programs on all licensees .... There may be particular facts on the record in individual cases, however, that will justify license conditions requiring the establishment of decommissioning cost trust funds in order to assure the availability of funding when decommissioning occurs..." 33/

Although several agencies and intervenors requested that the licensee perform studies to determine the cost associated with

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31/ See final EIS at pages 4-65 and 5-57.

32/ See final EIS at page 5-58.

33/ Project Decommissioning at Relicense; Policy Statement, RM93-23000, slip op. cit. pp. 33-34, issued December 14, 1994.

dam retirement and establish a fund to cover such costs if the project is ever retired, no entities have advocated dam retirement at this time. Therefore, there are no particular facts on the record to justify establishing a decommissioning cost trust fund for this project. I am not requiring this measure as a license condition. 34/

20. Fish and Wildlife Reopener

The agencies recommend that the license include an article reserving the Commission's authority to reopen the license for the purpose of addressing any new fish and wildlife issues. The standard reopener, Standard Form L-3, Article 15, is included in this license. 35/

IX. COMPREHENSIVE PLANS

Section 10(a) of the FPA, 16 U.S.C. § 803(a)(2)(A), requires the Commission to consider the extent to which a project is consistent with federal or state comprehensive plans for improving, developing, or conserving waterways affected by the project. Under Section 10(a)(2)(A) of the FPA, federal and state agencies filed a total of 115 comprehensive plans for Michigan and Wisconsin that address resources in these states. Of these, staff identified and reviewed seven plans relevant to the Menominee River. 36/

Based on staff's review of these plans, WPSC's project, as licensed in accordance with the conditions adopted herein, is consistent with these plans for the most part. There are two exceptions. The first is an inconsistency with two objectives of the Menominee River Fisheries Plan: (1) the project would not eliminate fish turbine mortality losses; and (2) the project

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34/ See final EIS at pages 2-29, 2-30, and 5-58.

35/ See final EIS at pages 4-56 and 5-52.

36/ Michigan: MDNR, (1991) *1991-1996 Michigan Recreation Plan;* Wisconsin: WDNR, (1991) *Wisconsin Statewide Comprehensive Outdoor Recreation Plan for 1991-1996;* WDNR, (1993) *Upper Green Bay Basin Water Quality Management Plan;* Michigan and Wisconsin: WDNR and MDNR (1993) *Menominee River Fisheries Management Plan;* WDNR and MDNR, (1990) *Lower Menominee River Remedial Action Plan;* Michigan: MDNR (1994) *Fisheries Division Strategic Plan;* U.S. Fish and Wildlife Service and Canadian Wildlife Service (1994) *North American Waterfowl Management Plan.*

would not reestablish natural flow conditions on the Menominee River downstream of the project.

In addition, the project, as licensed, is inconsistent with the Fisheries Division Strategic Plan's goal to immediately enhance natural reproduction and movement of native fish.

Staff's analysis determined that although, (1) the operation of this project would result in the loss of fish resources from turbine entrainment mortality; and (2) the project would not immediately enhance natural production and movement of native fish, the project would not produce a significant adverse impact on fish populations or recreational fishing opportunities of the Menominee River.

Studies performed at several locations along the lower Menominee River indicate that the overall fishery of the river is diverse and healthy, supporting a desirable mix of game and panfish species. In addition, growth rates of these species compare favorably to non-project waters elsewhere in Wisconsin and the Lake Michigan drainage. Therefore, although the continued loss of fish because of turbine mortality is not consistent with a specific objective of the two plans, these losses are not preventing the realization of the two plans' overall fisheries management goals. 37/

Staff determined that there is no known technically and economically feasible means to provide upstream passage for lake sturgeon at this time. Therefore, although this plan's goal is to immediately enhance the movement of native fish, there is no known means to accomplish the goal at this time. However, the license order does provide a mechanism to install upstream passage facilities in the future when a technically and economically feasible passage facility is developed. 38/ The approval of the project with staff's recommended enhancements would ultimately contribute to enhancing the movement of native fish, and contribute to the realization of the plan's fisheries management goals.

X. COMPREHENSIVE DEVELOPMENT

Sections 4(e) and 10(a)(1) of the FPA, §§ 16 U.S.C. 797(e) and 803(a)(1), require the Commission, in acting on applications for license, to give equal consideration to a project's power

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37/ See final EIS at page 5-27.

38/ See final EIS at page 5-31.

development purposes and to the purposes of energy conservation, the development of the waterway for the use or benefit of interstate commerce, the protection, mitigation of damage to, and enhancement of fish and wildlife, the protection of recreational opportunities, and the preservation of other aspects of environmental quality. Any license issued shall be such as in the Commission's judgement will be best adapted to a comprehensive plan for improving or developing the waterway or waterways for all beneficial public uses including irrigation, flood control, and water supply. The decision to license this project, and the terms and conditions included herein, reflect such consideration.

The EIS analyzes the effects associated with the issuance of four new licenses in the Menominee River basin. The EIS recommends a number of measures to protect and enhance environmental resources, which I adopt, as discussed herein. Many of these measures were recommended and supported by resource agencies and other commenters.

In determining whether a proposed project will be best adapted to a comprehensive plan for developing a waterway for beneficial public purposes, pursuant to Section 10(a)(1) of the FPA, 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 Corporation, Publishing Paper Division, 39/ the Commission employs an analysis that 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 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 addition, certain economic factors related to project decommissioning impinge on the decision to issue a new license that are not present in the licensing of new projects. If an existing project is not issued a new license, or if the licensee declines to accept the new license, the project probably will have to be retired in one form or another. This could range from simply removing the generator at the project to major

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39/ 72 FERC ¶ 61,027 (1995).

environmental restoration varying from minor measures to dam removal.

Based on current economic conditions, without future escalation or inflation, the Grand Rapids Project, if licensed as WPSC proposes, would provide an installed capacity of 7,000 kW and produce and average of 39.9 GWh of energy, at an annual cost of about 1.65 cent/kWh (16.5 mills/kWh). This is about 1.13 cents/kWh less than the current cost of an equivalent amount of capacity and energy using alternative power sources, which would cost about 2.78 cents/kWh (27.8 mills/kWh). 40/ If licensed in accordance with the conditions adopted herein, the project would produce about 38.5 GWh of energy, an annual cost of 2.93 cents/kWh (29.3 mills/kWh), or about 0.12 cents/kWh (1.2 mills/kWh) more than the cost of alternative power sources, which would cost about 2.81 cents/kWh (28.1 mills/kWh).

In any event, as noted above, it is WPSC which must make the business decision whether to pursue the license. As the Commission explained in Mead, supra, project economics is, moreover, only one of the many public interest factors the Commission considers in determining whether or not, and under what conditions, to issue a license. 41/

Based on my review and evaluation of the project as proposed by the licensee, and with the additional enhancement measures I am adopting, I conclude that operating the project in the manner required by the license will protect and enhance fish and wildlife resources, water quality, recreational resources, and cultural resources. The electricity generated from renewable water power resources will be beneficial because it will continue to offset the use of fossil-fueled, steam-electric generating plants, thereby conserving nonrenewable resources and reducing atmospheric pollution. I, therefore, find that the Grand Rapids Project, with the required environmental enhancement measures, is best adapted to a comprehensive plan for the use, conservation,

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40/ The alternative source of power is a gas-fired turbine.

41/ In analyzing public interest factors, the Commission takes into consideration the fact that hydroelectric projects offer unique electric utility system operational benefits, and that proposed projects may provide substantial benefits not directly related to utility operations, benefits that would be lost if a license were denied solely on economic grounds. See City of Augusta, et al., 72 FERC ¶ 61,114, flat copy at p. 19 n. 57 (1995).

and development of the waterway for beneficial public purposes. The required enhancement measures are summarized below.

(1) Operate the project in run-of-river mode (Article 401).

(2) Maintain seasonal reservoir elevations as follows: 664.95 feet plus and minus 0.5 feet during ice-free periods, and 664.45 feet plus and minus 0.5 feet during periods of ice cover (Article 401).

(3) Provide a minimum flow of 134 cfs in the spillway channel from June 1 to the "spring spawning date," and 800 cfs from the "spring spawning date" through May 31 (Article 402).

(4) Develop and implement a bypassed channel flow plan (Article 403).

(5) Develop and implement an operational compliance plan that includes:

- provision for a staff gage in the reservoir clearly visible to the public;
- maintenance of automatic water level sensors to monitor and record headwater and tailwater elevations;
- maintenance of a daily record of project operation on a 60-minute basis;
- procedures for reestablishing flows during periods of project shutdown;
- methods for providing operational data to agencies;
- seasonal reservoir target elevation changes (Article 404).

(6) Install a new telemetered USGS gage upstream of the project and conduct a two-year test to determine the accuracy of headwater, tailwater, and generation data as a means to monitor run-of-river compliance (Article 405).

(7) Develop and implement a reservoir drawdown plan (Article 406).

(8) Develop and implement a water quality monitoring plan (Article 407).

(9) Reserve the Secretary of the Interior's authority to prescribe fish passage facilities (both upstream at the powerhouse, when technology exists, and in the spillway channel) (Article 408).

(10) Conduct a downstream fish passage study, and construct a fish passage facility (Article 409).

(11) Develop and implement a plan providing large woody debris transport (Article 410).

(12) Implement a program to monitor and control the spread of purple loosestrife and Eurasian milfoil in the reservoir (Article 411).

(13) Upon completion of the state of Wisconsin's Purple Wartyback Mussel Recovery Plan, implement protective measures (Article 412).

(14) Develop and implement a wildlife management plan that includes the following measures:

- bald eagle protection and osprey management measures;
- policies for preservation of large canopy trees as bald eagle nesting sites;
- wood turtle habitat protective measures;
- Blanding's turtle habitat protective measures;
- provisions for protecting and enhancing habitat for any federal- or state-designated threatened, endangered, or sensitive species on project lands;
- consultation with agencies regarding decisions affecting wildlife management on project lands;
- provisions for cooperating with the agencies in conducting wildlife surveys within project boundaries (Article 413).

(15) Implement a land management plan for protection of shoreline resources that includes maintenance of a 200-foot no-timber-harvest buffer zone on project-owned lands (Article 414).

(16) Construct, maintain, and operate various recreation enhancements including:

- at Boat Landing No. 1: (a) install concrete planks at the boat launch; (b) provide a parking layout that promotes the safe ingress and egress of vehicles and pedestrians; and © provide trash receptacles;

- at Boat Landing No. 2: (a) install concrete planks at the boat launch; (b) provide a parking layout that promotes the safe ingress and egress of vehicles and pedestrians, and provide one designated barrier-free parking space for every 25 parking spaces; © provide

barrier-free trash receptacles; (d) install a barrier-free courtesy pier at the boat launch; (e) install a barrier-free fishing pier; (f) construct a barrier-free shoreline fishing area next to the boat landing; (g) provide barrier-free toilets; and (h) ensure the path of travel to the barrier-free recreation enhancements is accessible;

- at Boat Landing No. 3: (a) install concrete planks at the boat launch; (b) install a directional sign at County Highway 577; © provide a parking layout that promotes the safe ingress and egress of vehicles and pedestrians; (d) redesign the tailrace access to provide easier entry to the water; and (e) provide trash receptacles;

- at the canoe portage: improve portage by widening, adding gravel, and modifying put-in, and trimming vegetation;

- maintain access to the project's dike and walk-in fishing access locations;

- provide directional signs to the recreation facilities from major roadways in the area; and

- add information indicating the presence of disabled accessibility, potable water, and toilets on the recreation facility signs at the entrance to each project recreation site (Article 415).

(17) Implement the December 30, 1993, "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" to protect existing and future potential cultural resources (Article 416).

XI. LICENSE TERM

Section 15(e) of the FPA 42/ provides that any new license issued shall be for a term of not less than 30 years nor more than 50 years. The Commission's general policy is to establish 30-year terms for projects with little or no redevelopment, new construction, new capacity, or environmental mitigative and enhancement measures; 40-year terms for projects with a moderate amount of proposed redevelopment, new construction, new capacity or mitigative and enhancement measures; and 50-year terms for projects with proposed extensive redevelopment, new construction, new capacity, or mitigative and enhancement measures. Also, as an inducement for new license applicants to propose better balanced comprehensive development of a waterway, we will set a new license term at greater than 30 years to ease the impacts of large costs when the new license includes substantial environmental mitigation and enhancement measures. Accordingly, because this new license authorizes moderate enhancement measures, the license will have a term of 40 years.

XII. SUMMARY OF FINDINGS

Background information, analysis of impacts, support for related license articles, and the basis for the conclusions regarding significant beneficial impacts on the environment are contained in staff's final EIS for the Menominee River projects.

I find that it is not necessary, as requested by Wisconsin DNR, Michigan DNR, and Interior in their letters on the final EIS, to convene a second Section 10(j) meeting or issue a revised or supplemental final EIS. This license contains adequate provision for additional agency consultation and involvement in all fish and wildlife related activities over the term of the license. This includes provision for upstream and downstream fish passage and protection, water quality monitoring measures, and other fish and wildlife surveys and protection plans.

The project will be safe if operated and maintained in accordance with the requirements of this license. Analysis of related issues is provided in the Safety and Design Assessment.

I conclude that the Grand Rapids Project does not conflict with any planned or authorized development, and is best adapted to the comprehensive development of the Menominee River for beneficial public use.

42/ 16 U.S.C. § 8098(e).

The Director orders:

(A) This license is issued pursuant to both Section 4(e) and Section 15 of the FPA to the Wisconsin Public Service Corporation (licensee) for a period of 40 years, effective the first day of the month in which it is issued, to continue to operate and maintain the Grand Rapids Project. This license is subject to the terms and conditions of the FPA, which is incorporated by reference as part of this license, and to the regulations the Commission issues under the provisions of the FPA.

(B) The project consists of:

(1) All lands, to the extent of the licensee's interests in those lands, as shown on Exhibit G-1 (FERC Drawing Number 2433-4) in the application for new license, filed on December 17, 1991.

(2) Project works consists of: (1) a 1,402-foot-long and 31-foot-high (28 feet from headwater to tailwater) dam with embankment and gravity sections consisting of, from left to right looking downstream, (a) a 278-foot-long concrete gravity spillway section with eight 12.0-foot-wide by 14.5-foot-high Taintor gates and seven 14-foot-wide by 14.5-foot-high Taintor gates, (b) a 224-foot-long concrete gravity ungated ogee spillway with 24-inch-high flashboards, and © a 900-foot-long earth embankment section with a concrete core; (2) a 135-foot-long by 16-foot-high concrete guard lock bridge with thirteen 10-foot locks (closed by needle planks) integral to the bridge; (3) a 3,200-foot-long excavated power canal with lateral earthfill dikes; (4) a reinforced concrete powerhouse 121-feet-long by 35-feet-wide, housing five generating units with a total installed capacity of 6,658 kW; (5) a 300-acre reservoir having a maximum storage capacity of 2,141 acre-feet at 664.95 feet NGVD; and (6) appurtenant facilities.

The project works generally described above are more specifically described in Exhibit A of the license application and shown by Exhibit F.

Exhibit A. The following sections of Exhibit A, filed December 17, 1991:

Pages A-1 through A-6 describing the project's existing mechanical, electrical, and transmission equipment.

Exhibit F. The following sections of Exhibit F, filed December 17, 1991:

Exhibit F	FERC No.	Showing
F-1	2433-1	Plant Site Layout
F-2	2433-2	Plan of Dam and Canal Bridge Profile and Sections
F-3	2433-3	Plan of Powerhouse and Downstream Elevation

(3) All of the structures, fixtures, equipment, or facilities used to operate or maintain the project and located within the project boundary, all portable property that may be employed in connection with the project and located within or outside the project boundary, and all riparian or other rights that are necessary or appropriate in the operation or maintenance of the project.

Exhibits A, F, and G of the license application are approved and made part of the license.

(D) This license is subject to the articles set forth in Form L-3 (October 1975) entitled "Terms and Conditions of License for Constructed Major Projects Affecting Navigable Waters of the United States" and the following additional articles:

Article 201. The licensee shall pay the United States the following annual charges, effective as of the first day of the month in which this license is issued:

> For the purposes of reimbursing the United States for the Commission's administrative costs, pursuant to Part I of the Federal Power Act, a reasonable amount as determined in accordance with the provisions of the Commission's regulations in effect from time to time. The authorized installed capacity for that purpose is 7,000 kilowatts.

Article 202. If the licensee's project was directly benefitted 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 original 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 shall 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.

Article 203. Pursuant to Section 10(d) of the Federal Power Act, a specified reasonable rate of return upon the net investment in the project shall be used for determining surplus earnings of the project for the establishment and maintenance of amortization reserves. The licensee shall 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 shall deduct the amount of that deficiency from the amount of any surplus earnings subsequently accumulated, until absorbed. The licensee shall set aside one-half of the remaining surplus earnings, if any, cumulatively computed, in the project amortization reserve account. The licensee shall 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 shall be calculated annually based on current capital ratios developed from an average of 13 monthly balances of amounts properly includable 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 shall be the weighted average cost of long-term debt and preferred stock for the year, and the cost of common equity shall 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 4 percentage points (400 basis points).

Article 401. The licensee shall operate the project in a run-of-river mode for the protection of fish, riparian vegetation, and recreation opportunities upstream and downstream of the dam. The licensee shall at all times act to minimize the fluctuation of the reservoir surface elevation by maintaining a discharge from the project so that, at any point in time, flows, as measured immediately downstream of the project tailrace, approximate the sum of inflows to the project reservoir.

To protect shoreline aquatic habitat and wetlands, the licensee shall maintain the reservoir water surface elevation at or within 6 inches of the normal reservoir elevation of 664.95 feet National Geodetic Vertical Datum (NGVD) during "ice-free" periods, and at or within 6 inches of the normal reservoir surface elevation of 664.45 feet NGVD during periods of "ice-cover," as measured immediately upstream from the project dam. The licensee shall not operate over the full range on a daily basis for the purpose of power system load-following.

Run-of-river operation and reservoir water surface elevation may be temporarily modified if required by operating emergencies beyond the control of the licensee, including flood and ice conditions, and for short periods upon mutual agreement among the licensee, Michigan Department of Natural Resources (Michigan DNR), Wisconsin Department of Natural Resources (Wisconsin DNR), and U.S. Fish and Wildlife Service (FWS). If project operation or reservoir water surface elevation is temporarily modified for mutually agreed upon short periods of time, the licensee shall notify the Commission as soon as possible, but no later than 10 days after each such incident. If run-of-river operation or reservoir surface elevation is modified due to an emergency, the licensee shall notify the Commission, Michigan DNR, Wisconsin DNR, and FWS within 24 hours.

In case of project shutdown during "ice-free" periods, the licensee shall pass river inflow through the project within 10 minutes, or in a manner consistent with safe project operation, if longer. During periods of "ice cover," the licensee shall pass river inflow through the project in accordance with procedures established by Article 403.

The "ice-free" and "ice-cover" periods referenced in this article shall be defined in accordance with the plan required by Article 404.

Article 402. The licensee shall release from the dam into the spillway channel a minimum flow of 134 cubic feet per second (cfs) from June 1 to the "spring spawning date," and 800 cfs from the "spring spawning date" through May 31, for protection of fish spawning and egg incubation in the spillway channel. The "spring spawning date" shall be defined as the date when the average water temperature in the Menominee River equals or exceeds 10 degrees Celsius for a period of 2 consecutive days. The licensee shall determine this date using temperature data to be collected as required by Article 407.

When downramping the spillway flow releases from 800 cfs to 134 cfs, the licensee shall restrict the rate of flow release reduction to no more than a 50 percent change in flow per day.

The minimum flow in the spillway channel may be temporarily modified if required by operating emergencies beyond the control of the licensee, or for short periods upon mutual agreement among the licensee, Michigan Department of Natural Resources (Michigan DNR), Wisconsin Department of Natural Resources (Wisconsin DNR), and U.S. Fish and Wildlife Service (FWS). If the minimum flow is modified upon mutual agreement with the agencies, the licensee

shall notify the Commission as soon as possible, but no later than 10 days after each such incident. If the minimum flow is modified due to an emergency, the licensee shall notify the Commission, Michigan DNR, Wisconsin DNR, and FWS within 24 hours.

Article 403. Within 180 days of license issuance, the licensee shall file with the Commission, for approval, an instream bypassed flow plan to document the licensee's proposed measures to ensure the release of instream flows downstream of the project spillway as described in Article 402.

The plan, at a minimum, shall describe proposed measures to:

(1) guarantee the release of required instream flows to the bypassed reach;

(2) verify the amount of flow being released;

(3) install, including the schedule, necessary structures or equipment;

(4) consult with Michigan Department of Natural Resources (Michigan DNR), Wisconsin Department of Natural Resources (Wisconsin DNR), and U.S. Fish and Wildlife Service (FWS) regarding the operation of the flow release mechanism and methods to verify flow releases on a annual basis; and

(5) evaluate, in consultation with Michigan DNR, Wisconsin DNR, and FWS, the effectiveness of minimum flows in the spillway channel to enhance fish and other aquatic resources.

The licensee shall prepare the plan after consultation with Michigan DNR, Wisconsin DNR, and FWS. The licensee shall 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' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies to comment and make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

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

Article 404. Within 180 days of license issuance, the licensee shall file with the Commission, for approval, an operational compliance plan to document compliance with the run-of-river operation and reservoir elevation range specified by Article 401.

The plan, at a minimum, shall include measures to:

(1) install, calibrate, and maintain a staff gage in the reservoir that is visible to the public with the prescribed operating levels clearly marked;

(2) operate automatic water level sensors to record headwater and tailwater elevations, and devices to record power generation, capable of providing records at 60-minute intervals;

(3) maintain records of headwater and tailwater elevations and power generation;

(4) provide operational data to the interested agencies in a timely manner;

(5) pass project inflow downstream within 10 minutes or in a manner consistent with safe project operation, in the event of project shutdown during "ice-free" periods;

(6) pass project inflow downstream as soon as possible and practicable, in a manner consistent with safe project operation, in the event of a project shutdown during "ice-cover;" and

(7) develop a definition of "ice-free" and "ice-cover" periods applicable to Article 401.

The licensee shall prepare the plan after consultation with Michigan Department of Natural Resources, Wisconsin Department of Natural Resources, and U.S. Fish and Wildlife Service. The licensee shall 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' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies to comment and make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

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

Article 405. Within 180 days of license issuance, the licensee shall file with the Commission, for approval, a plan to conduct a two-year evaluation to determine whether operation of the project in a run-of-river mode as required by Article 401 has been achieved. This plan shall include the following elements:

(1) installation, calibration, and maintenance of a U.S. Geological Survey type recording streamflow gage upstream of the project; and

(2) the licensee's proposed location for gage installation, a schedule for installation, and measures to maintain its operation over the 2-year testing period.

The licensee shall prepare the plan after consultation with Michigan Department of Natural Resources (Michigan DNR), Wisconsin Department of Natural Resources (Wisconsin DNR), and U.S. Fish and Wildlife Service (FWS).

Within 6 months after the end of the 2-year test period, the licensee shall submit to Wisconsin DNR, Michigan DNR, and FWS its draft report on the operational testing program assessing how closely the Grand Rapids Project operates in a run-of-river mode.

Within six months of receiving comments on the draft report, the licensee shall file a final report with the Commission, for approval, including the agencies' comments and any licensee-proposed and agency-recommended measures needed to meet the operational requirements of Article 401.

The Commission reserves the right to require continued testing or modifying the method for monitoring project operation compliance based on the results of the 2-year test.

Article 406. Within 180 days of license issuance, the licensee shall file with the Commission, for approval, a reservoir drawdown plan. The purpose of the drawdown plan is to minimize the impact of any project maintenance requiring a reservoir drawdown on aquatic and wetland resources. The plan shall include procedures for consulting with Michigan Department of Natural Resources (Michigan DNR), Wisconsin Department of Natural Resources (Wisconsin DNR), and U.S. Fish and Wildlife Service (FWS) in advance of planned drawdowns.

The plan shall also address procedures for consulting with the agencies after an emergency drawdown of the reservoir surface water elevation. The procedures shall identify notification and agency consultation requirements that would occur prior to returning to normal operating reservoir levels.

The licensee shall prepare the plan after consultation with Michigan DNR, Wisconsin DNR, and FWS. The licensee shall 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' comments are accommodated by the plan. The licensee shall 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 shall 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 shall implement the plan, including any changes required by the Commission.

Article 407. Within 180 days of license issuance, the licensee shall file with the Commission, for approval, a plan to monitor dissolved oxygen (DO), temperature, and pH of the Menominee River at the project.

The purpose of this monitoring plan is to ensure that releases from the Grand Rapids Project maintain the state standards below except when river flow in the Menominee River is less than the 95 percent exceedance flow or when natural conditions prohibit attainment of the standards.

(1) Monthly average temperatures downstream of the Grand Rapids Dam shall be no greater than those listed below:

January, February ---	38°F
March ----------	41°F
April ----------	56°F
May ----------	70°F
June ----------	80°F
July ----------	83°F
August ----------	81°F
September ----------	74°F
October ----------	64°F
November ----------	49°F
December ----------	39°F

(2) Temperature downstream of the Grand Rapids Project Dam shall not exceed 89°F at any time.

(3) DO concentrations downstream of the project powerhouse must be not less than 5 milligrams per liter (mg/l) at any time.

(4) Maintain pH within the range of 6.0 to 9.0, with no change greater than 0.5 units outside the estimated natural seasonal maximum and minimum.

The water quality monitoring plan shall include, at a minimum, the provisions listed below.

(1) Monitor temperature, DO, and pH in the Menominee River at the Grand Rapids Project periodically during critical periods, such as during low flow, high temperature periods.

(2) Prepare a summary of temperature, DO, pH, and any other data collected pursuant to this plan to be submitted to the Commission, Michigan Department of Natural Resources (Michigan DNR), Wisconsin Department of Natural Resources (Wisconsin DNR), and U.S. Fish and Wildlife Service (FWS).

(3) Include provisions for notifying the Commission, Michigan DNR, Wisconsin DNR, and FWS if water quality limits contained in this license are not met, including operating procedures for addressing and correcting the exceedance of water quality limits.

The licensee shall prepare the plan after consultation with Michigan DNR, Wisconsin DNR, and FWS. The frequency of monitoring and monitoring locations shall be determined in consultation with the agencies.

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

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

Article 408. Authority is reserved to the Commission to require the licensee to construct, operate, and maintain, or to provide for the construction, operation, and maintenance of, such fishways as may be prescribed by the Secretary of the Interior pursuant to Section 18 of the Federal Power Act.

Article 409. Within one year of license issuance, the licensee shall file with the Commission, for approval, a plan to develop permanent downstream fish passage facilities, as prescribed by the Secretary of the Interior. The plan shall include, but not be limited to, the elements discussed below.

(1) Construction, operation, and maintenance of a permanent downstream fishway at the Grand Rapids Project powerhouse. The licensee shall evaluate, in consultation with the agencies listed below, appropriate fish passage measures for their engineering feasibility, including effects on project hydraulics and operation, and their effectiveness at safely passing target species and life stages. Such evaluations may include computer modeling, laboratory evaluations, and the construction and assessment of an onsite prototype facility, as appropriate.

(2) Development and implementation of a monitoring plan to evaluate the effectiveness of the downstream fishway, including provisions to make reasonable modifications to improve the effectiveness of the fishway based on the results of monitoring.

(3) Development of an operational and maintenance plan and schedule for the fishway.

The licensee shall prepare the plan after consultation with Michigan Department of Natural Resources, Wisconsin Department of Natural Resources, and U.S. Fish and Wildlife Service. The licensee shall 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' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies to comment and make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the plan. Upon Commission approval, the licensee shall implement the downstream fish passage plan, including any changes required by the Commission.

Article 410. Within 180 days of license issuance, the licensee shall file with the Commission, for approval, a plan for the passage of large woody debris that collects near the project intake into the project tailrace to improve fish habitat downstream of the project.

The licensee shall prepare the plan after consultation with Wisconsin Department of Natural Resources, Michigan Department of Natural Resources, and U.S. Fish and Wildlife Service. The licensee shall include with the plan documentation of agency 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' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies to comment and make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on site-specific conditions.

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

Article 411. Within 180 days of license issuance, the licensee shall develop and file with the Commission, for approval, a plan to monitor and control the spread of purple loosestrife (*Lythrum salicaria*) and Eurasian milfoil (*Myriophyllum spicatum*) in project waters.

The plan shall include, but is not limited to: (a) the method of monitoring, (b) the frequency of monitoring, (c) a provision to cooperate in the control/elimination of these vegetative species if deemed necessary by the agencies, and (d) documentation of transmission of monitoring data to Michigan Department of Natural Resources (Michigan DNR), Wisconsin Department of Natural Resources (Wisconsin DNR), and U.S. Fish and Wildlife Service (FWS).

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

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

Article 412. Within 180 days of notification by Wisconsin Department of Natural Resources (Wisconsin DNR) that a state-approved Recovery Plan for the Purple Wartyback Mussel has been completed, the licensee shall develop a plan to implement the Recovery Plan within the project boundary.

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

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

Article 413. Within one year of license issuance, the licensee shall file with the Commission, for approval, its proposed wildlife management plan, including any changes or additions specified in this article.

The plan, at a minimum, shall incorporate or adopt by reference all other wildlife resource protection plans required by this license order, and also include the following additional provisions:

(1) all wildlife measures presented in the land management plan in Appendix E.6-1 of the license application, except as modified below;

(2) measures to protect and manage bald eagles and ospreys;

(3) measures to protect or manage cavity nesting and supercanopy trees;

(4) shoreline protection measures for wood turtle and Blanding's turtle habitat;

(5) proposed parking lot construction materials to maximize protection of wood turtles;

(6) measures to protect federal- and state-designated threatened, endangered, or sensitive species;

(7) provision for cooperating with agencies in conducting wildlife surveys within project boundaries;

(8) provision for consultation with Wisconsin Department of Natural Resources (Wisconsin DNR), Michigan Department of Natural Resources (Michigan DNR), and U.S. Fish and Wildlife Service (FWS) prior to any land-disturbing activities in order to ensure protection of fish and wildlife; and

(9) provision for meetings and consultation to occur at a minimum of once every five years with Wisconsin DNR, Michigan DNR, and FWS to review and update the plan.

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

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

Article 414. Within one year of license issuance, the licensee shall file with the Commission, for approval, its proposed land management plan for all project lands. The land management plan, at a minimum, shall incorporate or adopt by reference all other resource protection plans, and include the following additional provisions and policies:

(1) all items listed in the licensee's proposed land management plan included in Appendix E.6-1 of the license application, except as modified in items 2 through 8 below;

(2) policies for land management within a 200-foot shoreline buffer zone, including provision that no-timber harvesting can occur in this buffer;

(3) scenic management guidelines along shorelines, access roads, and recreation areas;

(4) policies for managing timber resources;

(5) policies regarding leasing of lands, including detail of existing leases, including easements or licenses to private individuals for access and boat storage on the project shoreline;

(6) incorporation of Michigan Department of Natural Resources' (Michigan DNR's) Best Management Practices policy guidelines;

(7) provision for consultation with Wisconsin Department of Natural Resources (Wisconsin DNR), Michigan DNR, and U.S. Fish and Wildlife Service (FWS) prior to any land-disturbing activities to ensure protection of fish and wildlife; and

(8) provision for meetings with Wisconsin DNR, Michigan DNR, and FWS to review and update the plan.

The licensee shall prepare the plan after consultation with Wisconsin DNR, Michigan DNR, and FWS. The licensee shall 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' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies to comment and make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on site-specific conditions.

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

Article 415. Within one year of license issuance, the licensee shall file with the Commission, for approval, a recreation plan for the Grand Rapids Project. The plan shall include, at a minimum, the following information:

(1) type and estimated amount of public and private recreation use at the project;

(2) discussion of the adequacy of existing recreation improvements to meet existing and future public and recreation demand;

(3) final site plans and final design drawings and specifications for proposed new recreation facilities to be funded in part or in whole by the licensee;

(4) a description of the construction materials for the new recreational facilities;

(5) landscaping of new construction areas;

(6) costs of the improvements;

(7) identification of the entity or entities responsible for the construction, operation, and maintenance of existing or proposed facilities and, if this is not the licensee, documentation of the licensee's construction, operation, and maintenance agreement with the entity or entities;

(8) implementation schedule for proposed new recreation improvements;

(9) discussion of how existing and proposed facilities consider the needs of persons with disabilities; and

(10) documentation of consultation with resource agencies and other providers of public recreation at the project.

The plan shall provide for the specific recreation facilities and improvements described below.

(1) At Boat Landing No. 1, (a) install concrete planks at the boat launch; (b) provide a parking layout that promotes the safe ingress and egress of vehicles and pedestrians; and (c) provide trash receptacles.

(2) At Boat Landing No. 2, (a) install concrete planks at the boat launch; (b) provide a parking layout that promotes the safe ingress and egress of vehicles and pedestrians and provide one designated barrier-free parking space for every 25 parking spaces; (c) provide barrier-free trash receptacles; (d) install a barrier-free courtesy pier at the boat launch; (e) install a barrier-free fishing pier; (f) construct a barrier-free shoreline fishing area next to the boat landing; (g) provide barrier-free toilets; and (h) ensure the path of travel to the barrier-free recreation enhancements is accessible.

(3) At Boat Landing No. 3, (a) install concrete planks at the boat launch; (b) install a directional sign at County Highway 577; (c) provide a parking layout that promotes the

safe ingress and egress of vehicles and pedestrians ; (d) redesign the tailrace access to provide easier entry to the water; and (e) provide trash receptacles.

(4) At the canoe portage, improve portage by widening, adding gravel, modifying the put-in, and trimming vegetation.

(5) Maintain access to the project's dike and walk-in fishing access locations.

(6) Provide directional signs to the recreation facilities from major roadways in the area. The number and location of signs should be determined in consultation with Wisconsin Department of Natural Resources (Wisconsin DNR) and Michigan Department of Natural Resources (Michigan DNR).

(7) Include information indicating the presence of disabled accessibility, potable water, and toilets on the recreation facility signs at the entrance to each project recreation site.

The licensee shall prepare the recreation plan in consultation with Wisconsin DNR, Michigan DNR, and local agencies having land management or planning/zoning authority in the area. The licensee shall also consult with the above agencies, regarding recreation use and needs at the project, every sixth year as part of the Form 80 reporting cycle, for the term of the license, pursuant to Part 8 of the Commission's regulations.

The licensee shall 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' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies to comment and make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on site-specific conditions.

The Commission reserves the right to require changes to the plan. No construction of new recreational facilities shall begin until the licensee is notified that the plan is approved. Upon Commission approval, the licensee shall implement the plan, including any changes required by the Commission.

Article 416. The licensee shall implement the "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," executed on December 30, 1993, including but not limited to, the Historic Resources Management Plan for the project.

In the event that the Programmatic Agreement is terminated, the licensee shall implement the provisions of its approved Historic Resources Management Plan.

The Commission reserves the authority to require changes to the Historic Resources Management Plan at any time during the term of the license. If the Programmatic Agreement is terminated prior to Commission approval of the Historic Resources Management Plan, the licensee shall obtain Commission approval before engaging in any ground-disturbing activities or taking any other actions that may affect any historic properties with the project's area of potential effect.

Article 417. (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 water for which the licensee may grant permission without prior Commission approval are: (1) landscape plantings; (2) non-commercial piers, landings, boat docks, or similar structures and facilities that can accommodate no more than 10 watercraft at a time and where said facility is intended to serve single-family type dwellings; (3) embankments, bulkheads, retaining walls, or similar structures for erosion control to protect the existing shoreline; and (4) food plots and other wildlife enhancement.

To the extent feasible and desirable to protect and enhance the project's scenic, recreational, and other environmental values, the licensee shall require multiple use and occupancy of facilities for access to project lands or waters. The licensee shall also ensure, to the satisfaction of the Commission's authorized representative, 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 would be adequate to control erosion at the site; and (3) determine that the proposed construction is needed and would not change the basic contour of the reservoir shoreline.

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

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 1 million gallons per day from a project reservoir.

No later than January 31 of each year, the licensee shall file three copies of a report briefly describing for each conveyance made under this paragraph © 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 Exhibit R or 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 submit a letter to the Director, Office of Hydropower Licensing, 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 or K map may be used), the nature of the proposed use, the identity of any federal or state agency official consulted, and any federal or state approvals required for the proposed use. Unless the Director, within 45 days from the filing date, requires the licensee to file an application for prior approval, the licensee may convey the intended interest at the end of that period.

(e) The following additional conditions apply to any intended conveyance under paragraph © 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 exhibit R or approved report on recreational resources of an exhibit E; or, if the project does not have an approved exhibit R or 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 insure that the construction, operation, and maintenance of structures or facilities on the conveyed lands will occur in a manner that will protect the scenic, recreational, and environmental values of the project; and (iii) the grantee shall not unduly restrict public access to project waters.

(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 or K 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 or K drawings would 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.

(E) The motions to intervene out of time filed by Michigan Hydro Relicensing Coalition, Izaak Walton League, and River Alliance of Wisconsin are granted.

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

(G) This order is issued under authority delegated to the Director and constitutes final agency action. Requests for rehearing by the Commission may be filed within 30 days of the date of this order, pursuant to 18 C.F.R. section 385.713. The filing of a request for rehearing does not operate as a stay of the effective date of this order or of any other date specified in this order, except as specifically ordered by the Commission. The Licensee's failure to file a request for rehearing shall constitute acceptance of this order.

Kevin P. Madden
Acting Director
Office of Hydropower
Licensing