

UNITED STATES OF AMERICA 68 FERC ¶62,280
FEDERAL ENERGY REGULATORY COMMISSION

Wisconsin Power & Light Company

Project No. 2347-001
Wisconsin

ORDER ISSUING SUBSEQUENT LICENSE
(Minor Project)

Issued September 28, 1994

The Wisconsin Power & Light Company (Wisconsin Power) filed a license application under Part I of the Federal Power Act (FPA) for continued operation and maintenance of the 500-kilowatt (kW) Janesville Central (Janesville) Hydroelectric Project, located on the Rock River, in the city of Janesville, in Rock County, Wisconsin.¹ The project produces about 2.03 gigawatthours (GWh) of electricity annually.

Notice of the application has been published. No protests were filed in this proceeding and no agency objected to issuance of this license. Comments received from interested agencies and individuals have been fully considered in determining whether, and under what conditions, to issue this license.

The Commission's staff issued a draft environmental assessment (EA) for this project on April 22, 1994. The staff considered the comments on the draft EA in preparing the final EA, which was issued September 21, 1994. The final EA is attached to the license. The staff also prepared a Safety and Design Assessment (SDA), which is available in the Commission's public file for this project.

Two motions to intervene were filed for this project. On July 17, 1992, the Wisconsin Department of Natural Resources (WDNR) filed an intervention requesting party status.

On July 24, 1992, the Izaak Walton League of America filed an intervention, stating that there are significant opportunities on the Rock River for enhancement of fish, wildlife, and recreational resources. They did not recommend any specific enhancement measures. Both motions were granted. All intervenors' comments are addressed under the applicable sections of the EA.

¹ The Rock River is a navigable waterway of the United States. 32 FPC 575.

PROJECT DESCRIPTION

The existing run-of-river project consists of a 17-foot-high concrete dam, a 548-acre impoundment, a powerhouse containing one generating unit with an installed capacity of 500 kW, and appurtenant facilities.

A more detailed project description can be found in ordering paragraph B(2) and in the EA.

APPLICANT'S PLANS AND CAPABILITIES

Wisconsin Power's Record as a Licensee

The staff evaluated Wisconsin Power's record as a licensee for these areas: (1) conservation efforts, and (2) compliance history and potential for complying with the subsequent license. I accept the staff's findings in each of these areas.

Here are the staff's findings:

1. Conservation Efforts

Wisconsin Power is making a good faith effort to promote electric conservation.

The Wisconsin Public Service Commission (WPSC) has statutory and regulatory authority regarding least cost planning and energy conservation in the state of Wisconsin. Wisconsin Power promotes electric conservation among its member systems in compliance with the requirements and policies of the WPSC.

Wisconsin Power's plans and activities to promote conservation of electric energy and to reduce the peak demand for generating capacity include (1) the installation of automated control systems, (2) the efficiency evaluation and upgrade of the distribution system, (3) the implementation of demand-side management programs, and (4) providing information on energy conservation to its customers.

Therefore, Wisconsin Power is making a good faith effort to conserve electricity in compliance with the requirements of the WPSC.

2. Compliance History and Potential for Complying with the Subsequent License

Wisconsin Power's compliance with the terms and conditions of the original license for the Janesville Project demonstrates that Wisconsin Power's overall record of making timely filings and compliance with its license is satisfactory.

Based on past performance, Wisconsin Power would be able to comply with the terms and conditions of this subsequent license.

WATER QUALITY CERTIFICATION

On August 29, 1990, Wisconsin Power applied to the WDNR for water quality certification for the Janesville Project, as required by section 401 of the Clean Water Act. By letter dated June 12, 1991, the WDNR granted a waiver of the need for a section 401 water quality certificate to Wisconsin Power.

SECTION 18 FISHWAY PRESCRIPTIONS

Section 18 of the FPA, 16 U.S.C. § 811, states that the Commission shall require construction, maintenance, and operation by a licensee of such fishways as the Secretaries of Commerce and Interior may prescribe. Interior recommends that Wisconsin Power be required to provide fishways at the Janesville Project when prescribed by the Secretary of the Interior under section 18 of the FPA. Although fishways have not been prescribed by Interior at this time for the project, the Commission has included a license article which reserves Interior's authority to prescribe fishways in the future. We recognize that future fish passage needs and management objectives cannot always be predicted when the license is issued. Therefore, article 404 reserves Interior's authority to prescribe fishways.

RECOMMENDATIONS OF FEDERAL AND STATE FISH AND WILDLIFE AGENCIES UNDER SECTION 10(J) OF THE FPA

Section 10(j)(1) of the FPA, U.S.C. § 803(j)(1), requires the Commission to include license conditions based on recommendations of federal and state fish and wildlife agencies submitted under the Fish and Wildlife Coordination Act for the protection, mitigation, and enhancement of fish and wildlife.

The EA addresses two fish and wildlife agency recommendations that are within the scope of section 10(j) of the FPA -- run-of-river operations and reservoir surface level maintenance. This license provides conditions consistent with both of these recommendations.

RECOMMENDATIONS UNDER SECTION 10(A) OF THE FPA

The EA also addresses three agency recommendations -- bank access, signing a canoe portage route, and monitoring headwater and tailwater levels -- that are within the scope of section 10(a) of the FPA.

There are three additional fish and wildlife agency

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recommendations that are not addressed in the EA. 2 These three recommendations are detailed below.

In their letter filed September 20, 1993, the WDNR makes two recommendations concerning dam safety at the Janesville Project. They recommend that (1) they be provided with information -- stability calculations, an operation and maintenance plan, and an emergency action plan -- to determine if the dam is safe, and (2) the licensee provide them with FERC required dam safety inspection reports.

In their November 15, 1994, response letter, Wisconsin Power says that, since the project is federally licensed and subject to the Commission's dam safety requirements, they do not need to prove to the WDNR that the dam is safe. Also, Wisconsin Power does not think it is necessary for them to submit Commission inspection reports to the WDNR.

The staff agrees with Wisconsin Power on the first recommendation. Since the Commission already has jurisdiction over dam safety matters at the project, the staff does not think it is appropriate to condition the license so that the licensee must also conform to state dam safety requirements. Also, see the discussion below rejecting the WDNR's request to reserve state permitting authority.

The staff disagrees with Wisconsin Power on the second recommendation. Currently, the Commission requires licensees to provide agencies with dam safety inspection reports if the agencies request it through the regional office. Therefore, Wisconsin Power will be required to provide the WDNR with a copy of all dam safety inspection reports for the Janesville Project if they send a formal request to the FERC's Chicago Regional Office.

Finally, the WDNR requests a reservation of authority "to issue orders and require permits and approvals needed under state law." This request must be denied. The power to withhold a state permit or approval could thwart the accomplishment of the full purposes and objectives of the FPA embodied in this license. The WDNR's request for a license condition reserving its permitting and approval authority is tantamount to an assertion of final review authority over project requirements, and the Commission and the courts have held that such review impermissibly conflicts with the Commission's licensing and

2 These measures were not discussed in the EA because they do not directly involve the environmental impacts of the project. Moreover, since they would not provide measures for the protection, mitigation of damages to, and enhancement of fish and wildlife, they are not subject to the section 10(j) process.

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comprehensive development authority under the FPA. See, for example, Weyerhaeuser Company, 55 FERC ¶ 61,079 at pp. 61,246-48 (1991) and the cases cited there.

I concur with the staff's conclusions.

COMPREHENSIVE PLANS

Section 10(a)(2) of the FPA requires the Commission to consider the extent to which a project is consistent with federal and state comprehensive plans for improving, developing, and conserving waterways affected by the project.

Ten plans address resources relevant to the Janesville Project. They are:

- ù National Park Service. 1985. The Nationwide Rivers Inventory. United States Department of the Interior.
- ù Rock County, Wisconsin. 1985. Park and Outdoor Recreation Plan, 1986-91. Rock county Planning and Development Agency.
- ù U. S. Department of Interior. 1986. North American Wildlife Management Plan. Twin Cities, Minnesota.
- ù U. S. Department of Interior and Environment Canada. 1986. North American Waterfowl Management Plan.
- ù Wisconsin Department of Natural Resources. 1979. Rock River Basin Areawide Water Quality Management Plan. Madison, Wisconsin.
- ù Wisconsin Department of Natural Resources. 1985. Statewide Comprehensive Outdoor Recreation Plan, 1986-91.
- ù Wisconsin Department of Natural Resources. 1986. Wisconsin Water Quality: Report to Congress. Madison, Wisconsin.
- ù Wisconsin Department of Natural Resources. 1991. Lower Rock River Basin Water Quality Management Plan. Madison, Wisconsin.
- ù Wisconsin Department of Natural Resources. 1991. Wisconsin Statewide Comprehensive Outdoor Recreation Plan for 1991-96. Madison Wisconsin.
- ù Wisconsin Department of Natural Resources. 1992. Wisconsin Water Quality Assessment Report to Congress. Madison, Wisconsin.

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COMPREHENSIVE DEVELOPMENT

Sections 4(e) and 10(a)(1) of the FPA require the Commission to give equal consideration to all uses of the waterway on which the project is located. When the Commission reviews a hydropower project, the recreational, fish and wildlife, and other nondevelopmental values of the involved waterway are considered equally with its electric energy and other developmental values. In determining whether, and under what conditions, a hydropower license should be issued, the Commission must consider the various economic and environmental tradeoffs involved in the decision.

The staff evaluated (1) issuing the license as proposed by Wisconsin Power, (2) issuing the license as proposed by Wisconsin Power with the staff modifications and recommended enhancement measures, and (3) the no-action alternative. I have selected the second option -- licensing the project as proposed by Wisconsin Power with the staff modifications and recommended enhancement measures -- as the preferred alternative, because the proposed enhancements would benefit water quality, fish, wildlife, cultural, and recreation resources, requiring a minimal tradeoff of power development benefits.

The preferred option includes the following measures to protect and enhance environmental resources at the project site:

- ù maintain run-of-river operations (article 401);
- ù maintain the reservoir surface elevation at 769.1 ±0.3 feet National Geodetic Vertical Datum (NGVD) to the extent allowed by project operations (article 401);
- ù maintain a 35 cubic feet per second spill over the project dam (article 402);
- ù automatically maintain spillway flow during project shutdown (article 402);
- ù prepare a plan to monitor the project's run-of-river operations and minimum flow release (article 403);
- ù install signage to identify the canoe portage around the dam (article 407);
- ù notify the WDNR whenever the reservoir surface level cannot be maintained within the prescribed 769.1 ±0.3 feet NGVD bounds (article 401);

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- ù implement a cultural resource management plan and a programmatic agreement (PA) to avoid and minimize impacts to archeological and historical sites which are eligible for inclusion in the National Register of Historic Places (article 405); and

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- ù prepare a plan to develop the 300-foot-long section of undeveloped streambank just downstream of the powerhouse for public access for fishing and for use as a canoe portage put-in (article 406).

Only one of the measures would involve a significant cost. Wisconsin Power has agreed to identify the canoe portage route with signs at an estimated cost of \$1,000.

The benefits provided by this enhancement measure would improve recreational resources in the project area, while not substantially affecting the project economics.

I believe that the benefits obtained from the measures listed above justify the cost to Wisconsin Power. The 500-kW project will continue to generate about 2.03 GWh annually from a renewable resource, avoiding the need for an equivalent amount of coal-fired electric generation. The clean energy that would be produced by the project would continue to displace fossil-fueled power generation, thereby conserving nonrenewable energy resources and reducing the emissions of noxious gases that contribute to atmospheric pollution and global warming.

LICENSE TERM

In 1986, the Electric Consumers Protection Act (ECPA) modified section 15 of the FPA to specify that any license issued under section 15 shall be for a term that the Commission determines to be in the public interest, but not less than 30 years, nor more than 50 years. We are following the same guidelines in issuing subsequent licenses.³ Generally, we issue 30-year relicenses for projects that include no substantial new construction or power-generating expansion. We issue relicenses for 40 years or more for projects that include substantial new construction or capacity increases. We issue licenses of longer duration to ease the economic impact of the new costs and to encourage better comprehensive development of the renewable power-generating resource. For the same reason, we may issue longer duration licenses for projects that include substantial or costly environmental mitigation and enhancement measures.

3 A subsequent license is issued for a minor project whenever sections 14 and 15 of the FPA were waived in the project's original license.

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Licenses of longer duration in these instances encourage license applicants (1) to be better environmental stewards, and (2) to propose more balanced and comprehensive development of our river basins.

Wisconsin Power does not propose new development at the existing project facilities. In light of the relatively modest environmental enhancement costs involved, the subsequent license

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for the Janesville Project will be for a term of 30 years, effective the first day of the month in which this license is issued.

PROJECT RETIREMENT

The Commission has issued a Notice of Inquiry (NOI), dated September 15, 1993, requesting comments that address the decommissioning of licensed hydropower projects.⁴ The NOI states that the Commission is not proposing new regulations at this time, but is inviting comments on whether new regulations may be appropriate. Alternatively, the Commission may consider issuing a statement of policy addressing the decommissioning of licensed hydropower projects, or take other measures. The Janesville Project may be affected by future actions that the Commission takes with respect to issues raised in the NOI. Therefore, the license includes article 203, which reserves authority to the Commission to require the licensee to conduct studies, make financial provisions, or otherwise make reasonable provisions for decommissioning of the project.

SUMMARY OF FINDINGS

Background information, analysis of impacts, support for related license articles, and the basis for a finding of no significant impact on the environment are contained in the attached EA. Issuance of the license is not a major federal action significantly affecting the quality of the human environment.

The project will be safe if constructed, operated, and maintained in accordance with the requirements of this license. Analysis of related issues is provided in the SDA.

I conclude that the Janesville Project does not conflict with any planned or authorized development, and is best adapted to a plan for the comprehensive development of the Rock River for beneficial public uses.

⁴ Notice of Inquiry, Project Decommissioning at Relicensing, Dockets No. RM93-23-000, September 15, 1993

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The Director orders:

(A) This license is issued to the Wisconsin Power & Light Company for a period of 30 years, effective the first day of the month in which this license is issued, to operate and maintain the Janesville Central Hydroelectric 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, FERC Drawing Number 2347-9.

(2) Project works consisting of:

- ù a 243-foot-long timber and concrete overflow spillway, with four slide gates and one sluice gate;
- ù an existing reservoir with a surface area of 548 acres and a total storage volume of 3,675 acre-feet at the normal maximum surface elevation of 769.1 feet NGVD;
- ù an existing concrete and brick powerhouse, containing one generating unit with an installed capacity of 500 kW; and
- ù appurtenant facilities.

The project works above are more specifically described in section I of exhibit A of the license application and shown by exhibit F:

Exhibit F-	FERC No. 2347-	Showing
1	1	Plan and Elevation of Dam
2	2	Upstream Elevation of Powerhouse
3	3	Downstream Elevation of Powerhouse
4	4	End Elevations of Powerhouse
5	5	Plan of Generator Room
6	6	Sectional Elevation of Powerhouse
7	7	Sectional Elevations of Powerhouse

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8	8	Single-Line Electric Diagrams
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(3) All of the structures, fixtures, equipment, or facilities used to operate or maintain the project, all portable property that may be employed in connection with the project, and all riparian or other rights that are necessary or appropriate in the operation or maintenance of the project.

(C) Exhibits A, F and G described above are approved and made part of the license.

(D) The following sections of the FPA are waived and excluded from the license for this minor project:

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Section 4(b), except the second sentence thereof; 4(e) insofar as it relates to approval of plans by the Chief of Engineers and the Secretary of the Army and to public notice; 6, insofar as it relates to public notice and to the acceptance and expression in the license of terms and conditions of the FPA which are hereinafter waived; 10(c), insofar as it relates to depreciation reserves; 10(d); 10(f); 14, except insofar as the power of condemnation is reserved; 15; 16; 19; 20; and 22.

(E) This license is subject to the articles set forth in Form L-9, (October 1975), entitled "Terms and Conditions of License for Constructed Minor Project Affecting Navigable Waters of the U. S.," and the following additional articles:

Article 201. The licensee shall pay the United States an annual charge, effective the first day of the month in which this license is issued, for the purpose of reimbursing the United States for the cost of administration of Part I of the FPA, as determined by the Commission. The authorized installed capacity for that purpose is 666 horsepower.

Article 202. (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

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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.

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

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major electric distribution lines (69-kV or less); and (8) water intake or pumping facilities that do not extract more than one million gallons per day from a project reservoir. No later than January 31 of each year, the licensee shall file three copies of a report briefly describing for each conveyance made under this paragraph (c) during the prior calendar year, the type of interest conveyed, the location of the lands subject to the conveyance, and the nature of the use for which the interest was conveyed.

(d) The licensee may convey fee title to, easements or rights-of-way across, or leases of project lands for: (1) construction of new bridges or roads for which all necessary state and federal approvals have been obtained; (2) sewer or effluent lines that discharge into project waters, for which all necessary federal and state water quality certification or permits have been obtained; (3) other pipelines that cross

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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 five acres or less; (ii) all of the land conveyed is located at least 75 feet, measured horizontally, from project waters at normal surface elevation; and (iii) no more than 50 total acres of project lands for each project development are conveyed under this clause (d)(7) in any calendar year. At least 60 days before conveying any interest in project lands under this paragraph (d), the licensee must submit a letter to the Director, Office of 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 (c) or (d) of this article:

(1) Before conveying the interest, the licensee shall consult with federal and state fish and wildlife or recreation agencies, as appropriate, and the State Historic Preservation Officer.

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(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.

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(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.

Article 203. The Commission reserves authority, in the context of a rulemaking proceeding or a proceeding specific to this license, to require the licensee at any time to conduct studies, make financial provisions, or otherwise make reasonable provisions for decommissioning of the project. The terms of this article shall be effective unless the Commission, in Docket No.

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RM93-23, finds that they lack statutory authority to require such actions or otherwise determines that the article should be rescinded.

Article 401. The licensee shall operate the project run-of-river for the protection of fish, wildlife, recreational, and aesthetic resources in the Rock River. 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 from the project tailrace, approximate the sum of inflows to the project reservoir. Under normal operating conditions, the licensee shall maintain the elevation of the Janesville reservoir between 768.8 feet and 769.4 feet National Geodetic Vertical Datum, to the extent allowed by project operations.

Run-of-river operations may be temporarily modified if required by operating emergencies beyond the control of the licensee, or for short periods upon mutual agreement between the licensee and the Wisconsin Department of Natural Resources. If the flow is so modified, the licensee shall notify the Commission

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and the Wisconsin Department of Natural Resources as soon as possible, but no later than 10 days after each such incident.

Article 402. The licensee shall release over the project's spillway a minimum flow of 35 cubic feet per second, or inflow, whichever is less, to protect aquatic resources downstream of the project. The licensee shall automatically maintain spillway flow during project shutdown. These flows may be temporarily modified if required by operating emergencies beyond the control of the licensee, or for short periods upon mutual agreement between the licensee and the Wisconsin Department of Natural Resources. If the flows are so modified, the licensee shall notify the Commission as soon as possible, but not later than 10 days after each such incident.

Article 403. Within six months from the effective date of the license, the licensee shall file, for Commission approval, a plan to monitor the project's run-of-river operations as required by article 401, and the minimum flow as required by article 402. The plan should include the method of flow data collection, a schedule for implementing the monitoring methods, and a provision for providing the data to requesting agencies or individuals.

The licensee shall prepare the plan in consultation with the Wisconsin Department of Natural Resources and the 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

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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. No modification or enhancement activities covered by the plan shall begin until the licensee is notified by the Commission that the plan is approved. Upon Commission approval, the licensee shall implement the plan, including any changes required by the Commission.

Article 404. Authority is reserved to the Commission to require the licensee to construct, operate, and maintain, or to arrange for the construction, operation, and maintenance of, such fishway facilities as may be prescribed by the Secretary of the Interior under section 18 of the Federal Power Act.

Article 405. The licensee shall implement the Programmatic Agreement (PA) executed on December 30, 1993, to avoid and mitigate impacts to the historical integrity of archeological sites 47Ro9, 47Ro11, 47Ro307, 47Ro310, 47Ro313, 47Ro314, 47Ro315, 47Ro318, 47Ro324, 47Ro325, 47Ro342, and any other archeological

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or historic sites at the project eligible or potentially eligible for inclusion in the National Register of Historic Places.

Within 15 months from the effective date of this license, the licensee shall file, for Commission approval, the Historic Resources Management Plan identified in the PA, together with a letter from the Wisconsin State Historic Preservation Officer commenting on the plan. The Commission may require additional work and changes to the plan based on this filing.

Article 406. Within 6 months from the effective date of this license, the licensee shall file, for Commission approval, a plan to develop the 300-foot-long section of undeveloped streambank downstream of the powerhouse. The plan should address use of this streambank for public access for fishing and for use as a canoe portage put-in.

The plan should include, at a minimum, the following information: (1) a map (scale: one inch equals 100 feet) showing the locations of the public access area for fishing along the streambank, the canoe portage take-out above the dam, the canoe portage put-in along the streambank, and any other facilities proposed; (2) design drawings showing dimensions of any new facilities; (3) cost estimates of any new facilities; and (4) a schedule for implementation of the plan.

The licensee shall prepare the plan after consultation with the Wisconsin Department of Natural Resources and the city of Janesville. The licensee shall include with the plan

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documentation of consultation, copies of agency comments and recommendations on the completed plan, and specific descriptions of how the entities' comments and recommendations are accommodated by the plan.

The licensee shall allow 30 days for the entities 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. No enhancement activities covered by the plan shall begin until the licensee is notified by the Commission that the plan is approved. Upon Commission approval, the licensee shall implement the plan, including any changes required by the Commission.

Article 407. The licensee shall provide signs to identify the canoe portage around the project dam. Within 6 months of the effective date of this license, the licensee shall file with the Commission evidence of compliance with this article.

(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

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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. Request for
rehearing by the Commission may be filed within 30 days of the
date of this order, pursuant to 18 C.F.R. § 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.

Fred E. Springer
Director, Office of
Hydropower Licensing

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FINAL ENVIRONMENTAL ASSESSMENT
FOR HYDROPOWER LICENSE

Janesville Central Hydroelectric Project

FERC Project No. 2347-001

Wisconsin

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 Federal Energy Regulatory Commission
 Office of Hydropower Licensing
 Division of Project Review
 825 North Capitol Street, NE
 Washington, D. C. 20426

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SUMMARY

The Wisconsin Power & Light Company (Wisconsin Power) proposes to continue operating the 500-kilowatt Janesville Central Hydroelectric Project on the Rock River in Rock County, Wisconsin. In this environmental assessment (EA), staff analyzes the effects of continued operation and recommends license conditions, should the Federal Energy Regulatory Commission (Commission) decide to issue Wisconsin Power a subsequent license for the project.

In preparing this EA, we, the Commission staff, considered
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six alternatives, three of which we eliminated from detailed study. The three alternatives considered in detail are (1) Wisconsin Power's proposal, (2) their proposal with our additional recommended enhancement measures, and (3) the no-action alternative.

Wisconsin Power proposes no new construction or modifications of the power generating facilities. They would continue run-of-river operations, maintain the reservoir level at 769.1 ±0.3 feet National Geodetic Vertical Datum, maintain a 35 cfs spill over the dam, maintain spillway flow during project shutdown, and provide signage to identify the canoe portage around the project dam. These measures would enhance aquatic, aesthetic, and recreational resources at the project.

We considered the recommendations of resource agencies and other interested parties when determining what environmental protection and enhancement measures would be necessary or appropriate with continued operation of the project. The principal issues that emerge from our analysis are maintaining run-of-river operations and enhancing recreational resources.

Under the no-action alternative, Wisconsin Power would continue operating under the terms of the original license, which would not change the existing environment. No environmental enhancements would occur.

Based on our analysis of these alternatives, we recommend licensing the project for continued operation as proposed by Wisconsin Power with our additional environmental enhancement measures. These enhancement measures include monitoring run-of-river operations, notifying the Wisconsin Department of Natural Resources whenever run-of-river operations cannot be maintained, implementing a cultural resource management plan, and preparing a recreation plan to address public access.

Licensed with our measures, the Janesville Project would be best adapted to a comprehensive plan for developing the Rock River. Issuing a subsequent license with these measures would not be a major federal action significantly affecting the quality

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of the human environment.

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OFFICE OF HYDROPOWER LICENSING
DIVISION OF PROJECT REVIEW

Janesville Central Hydroelectric Project
FERC No. 2347-001 Wisconsin

INTRODUCTION

The Federal Energy Regulatory Commission (Commission) issued the Janesville Central (Janesville) Draft Environmental Assessment (DEA) for comment on April 25, 1994. In response, we received one comment letter from the city of Janesville. The letter was reviewed by the staff. The sections of the DEA that have been modified as a result of comments received are identified in the staff responses to the right of the comment letter in Appendix A.

I. APPLICATION

The Wisconsin Power & Light Company (Wisconsin Power) filed an application with the Commission for a subsequent license for the existing 500-kilowatt (kW) Janesville Hydroelectric Project on December 17, 1991. The project is located on the Rock River, in the city of Janesville, in Rock County, Wisconsin (figure 1).

The original license for the Janesville Project expired on December 31, 1993. The project has been operating on an annual license since that time.

II. PURPOSE AND NEED FOR ACTION

A. Purpose of Action

The Federal Energy Regulatory Commission must decide whether to issue Wisconsin Power a subsequent license for the project and what conditions to place on any license issued. Issuing a subsequent license would allow Wisconsin Power to continue to operate the project for a term of 30 to 50 years, making electrical power from a renewable resource available to its customers.

In this environmental assessment (EA), we, the Commission staff, assess the environmental and economic effects of (1)

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Figure 1 goes right here

continuing to operate the project with the enhancements proposed by Wisconsin Power, (2) operating the project as proposed by Wisconsin Power with our additional recommended environmental measures, and (3) continuing to operate the project with no changes or enhancements (the no-action alternative).

B. Need for Power

The Janesville Project is located in the Mid-America Interconnected Network (MAIN) region. To consider the need for power, the staff looked at Wisconsin Power's need as well as the regional need for power. The power produced at the project is used in Wisconsin Power's electric utility system. Wisconsin Power produces, transmits and distributes electricity, gas, and

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water to about 348,000 wholesale and retail customers in south central Wisconsin and northern Illinois.

Wisconsin Power's Demand-Side Management Program Plan shows that a need for new utility-owned generation will not occur until the latter part of the 10-year forecast period (around 1999). The delay is due to (1) the implementation of load management and conservation measures, and (2) the capacity exchanges with neighboring utilities.

The project's average annual generation of 2.03 gigawatthours (GWh) meets a small part of Wisconsin Power's annual requirement: Wisconsin Power uses the project output to serve local loads. The project helps lower system deficits and reduce costs to rate-payers.

To consider the regional need for power, the staff reviewed the demand forecast for the MAIN council.

Each year, MAIN submits a long range Regional Reliability Council Coordinated Bulk Power Supply program report to the U.S. Department of Energy. This report gives forecasts of summer and winter peak demands for capacity and annual energy requirements for each year of a 10-year planning period, and also provides actual data for the previous year.

In its April 1, 1993, report, MAIN projects average annual growth rates of 1.79 percent for summer peak demand, and 1.88 percent for winter peak demand. By the year 1999, MAIN utilities anticipate adding base load capacity to meet this projected load growth.

In summary, both MAIN and Wisconsin Power forecasts show capacity deficits by the year 1999. As a result, Wisconsin Power plans to add new resources in the last 3 years of the forecast period.

The power from the project would be useful in meeting a small part of the need for power projected by the MAIN region. The project displaces fossil-fueled electric power generation in the MAIN region and thereby, conserves nonrenewable fossil fuels, and reduces the emission of noxious byproducts caused by the combustion of fossil fuels.

III. PROPOSED ACTION AND ALTERNATIVES

A. Wisconsin Power's Proposal

1. Project Description

The project consists of (figure 2):

ù a 243-foot-long timber and concrete overflow spillway,

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with four slide gates and one sluice gate;

- ù an existing reservoir with a surface area of 548 acres and a total storage volume of 3,675 acre-feet at the normal maximum surface elevation of 769.1 feet National Geodetic Vertical Datum (NGVD);
- ù an existing concrete and brick powerhouse, containing one generating unit with an installed capacity of 500 kW; and
- ù appurtenant facilities.

Wisconsin Power is not proposing to change the existing run-of-river operations. The estimated average annual generation for the project is 2.03 GWh. All energy generated by the project would be sold to Wisconsin Power's customers.

No primary transmission lines are included as part of the licensed project. The project occupies no federal lands.

2. Proposed Environmental Measures

To enhance environmental resources of the project area, Wisconsin Power proposes to:

- ù maintain run-of-river operations;
- ù maintain the reservoir surface elevation at 769.1 ±0.3 feet NGVD to the extent allowed by project operations;
- ù maintain a 35 cfs spill over the project dam;
- ù automatically maintain spillway flow during project shutdown; and

figure 2 here

†

ù install signage to identify the canoe portage around the dam.

3. Mandatory Requirements--Section 18 Fishway Prescription

The Department of Interior (Interior) requests reservation of authority to prescribe the construction, operation, and maintenance of fishways under section 18 of the Federal Power Act (FPA). Currently, upstream and downstream fish passage past the Janesville dam is not a management objective for the Rock River. Should management objectives change, there may be a need for future fish passage at the project. Therefore, we recommend that authority be reserved to the Commission to require fishways as may be prescribed by Interior.

B. Staff's Modification of Wisconsin Power's Proposal

In addition to Wisconsin Power's proposal, we also recommend that they do the following:

- ù prepare a plan to monitor the project's run-of-river operations;

- ù notify the Wisconsin Department of Natural Resources (WDNR) whenever the reservoir surface level cannot be maintained within the prescribed 769.1 ±0.3 feet NGVD bounds;

- ù implement a cultural resource management plan and a programmatic agreement (PA) to avoid and minimize impacts to archeological and historical sites which are eligible for inclusion in the National Register of Historic Places; and

- ù prepare a plan to develop the 300-foot-long section of undeveloped streambank just downstream of the powerhouse for public access for fishing and for use as a canoe portage put-in.

The basis for these recommendations are explained in section V.

C. No-Action Alternative

Under the no-action alternative, the project would continue to operate under the terms and conditions of the existing license, and no new environmental protection, mitigation, or enhancement measures would be implemented. We use this alternative to establish baseline environmental conditions for comparison with other alternatives. The alternative of license denial and project decommissioning is discussed below in section D.

D. Alternatives Considered but Eliminated from Detailed Study

We also considered three additional alternatives, but eliminated them from detailed study because they were not reasonable in the circumstances of this case. Two of these alternatives involved project decommissioning, which could be accomplished with or without dam removal. Either alternative would involve denial of the subsequent license and surrender or termination of the existing license with appropriate conditions.

The first decommissioning alternative would involve dam removal. No participant has suggested that dam removal would be appropriate in this case, and we have no basis for recommending it. The project reservoir provides important recreational resources and the sediments stored behind the project dam could, if released by dam removal, cause downstream flooding and degradation of environmental resources. Thus, dam removal is not a reasonable alternative to relicensing the project with appropriate protection and enhancement measures.

The second decommissioning alternative would involve

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retaining the dam and disabling or removing equipment used to generate power. Project works would remain in place and could be used for historic or other purposes. This would require us to identify another government agency willing and able to assume regulatory control and supervision of the remaining facilities. No agency has stepped forward, and no participant has advocated this alternative. Nor have we any basis for recommending it. Because the power supplied by the project is needed, a source of replacement power would have to be identified. In these circumstances, we don't consider removal of the electric generating equipment to be a reasonable alternative.

A third alternative considered but eliminated from detailed study was adding capacity to the Janesville Project. In looking at the project's use of the energy potential of the site, we find that, at a maximum hydraulic capacity of 1,200 cubic feet per second (cfs), river flows exceed plant capacity 60 percent of the time. This means that the available river flow could support additional generation capacity.

However, we think the cost for expansion would exceed our estimate of the value of the power that would be produced -- 41.5 mills/kWh. Therefore, we conclude that capacity expansion would not be economically feasible at this time.

IV. CONSULTATION AND COMPLIANCE

A. Interventions

The Commission issued a public notice on May 27, 1992, stating that Wisconsin Power's application for the Janesville Project was accepted for filing. Two motions to intervene were filed in response to this notice.

On July 17, 1992, the WDNR filed an intervention requesting party status in all future proceedings involving this project.

On July 24, 1992, the Izaak Walton League of America filed an intervention. In their intervention, they stated that there are significant opportunities on the Rock River for enhancement of fish, wildlife, and recreational resources. They did not recommend any specific enhancement measures.

B. Agency Terms and Conditions

The Commission issued a public notice on August 3, 1993, stating that the staff was ready to begin the environmental analysis of the Janesville Project. The following entities responded to that notice:

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Commenting entity	Filing Date of letter
ù WDNR	September 20, 1993
ù Interior	September 20, 1993
ù WDNR	October 15, 1993

We address these terms and conditions in the appropriate sections of the EA.

C. Comments on the Draft EA

The following entity commented on the draft EA for this project:

Commenting entity	Filing Date of letter
ù City of Janesville	May 27, 1994

Wisconsin Power responded to these comments by letter filed July 13, 1994. A meeting and site visit were held on July 20, 1994. We address these comments and discuss the meeting and site visit in the appropriate sections of the EA.

D. Water Quality Certification

On August 29, 1990, Wisconsin Power applied to the WDNR for water quality certification for the Janesville Project, as required by section 401 of the Clean Water Act. By letter dated June 12, 1991, the WDNR granted a waiver of the need for a section 401 water quality certificate to Wisconsin Power.

V. ENVIRONMENTAL ANALYSIS

In this section, we analyze and compare the environmental effects of the three alternatives discussed in section III -- Wisconsin Power's proposal, their proposal with our additional recommended enhancement measures, and the no-action alternative. In addition to project-specific impacts, we analyze the potential for significant cumulative impacts to resources affected by the project and by other past, present, and reasonably foreseeable activities in the basin. Unless we say otherwise, the source of our information is Wisconsin Power's (1991) application for subsequent license, and the source of agency comments are the letters addressed in the Agency Terms and Conditions section of this EA.

A. General Description of the Rock River Basin

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The Rock River, the major river of the Rock River basin, originates in the Horicon Marsh in Dodge County, Wisconsin. It flows for 318 miles, and empties into the Mississippi River at Rock Island, Illinois. The total drainage area of the Rock River is 10,915 square miles; about half of that drainage area is in Wisconsin. The Rock River provides habitat for a wide variety of fish, wildlife, and plants.

According to United States Weather Bureau data collected near the project site, Janesville's climate is classified as humid continental, characterized by large daily and seasonal temperature ranges. The major factors contributing to this climatic classification are Janesville's latitude and continental location. Annual precipitation in the project area averages about 32 inches per year.

Geologically, the Rock River drainage was diverted and entrenched into the present valley during the Wisconsinan glaciation. The drainage was cut through a series of bedrock divides between several valleys established before, during, and/or after the Illinoisan glaciation. The valley then carried Wisconsinan glacial outwash after the entrenchment.

Presently, much of the land in Rock County is used for farming. In recent years, however, much of this farmland has

been transformed to urban uses such as residential developments, commercial centers, industrial facilities, and parklands.

B. Proposed Action and Action Alternatives

Our analysis in this section is organized by resource categories. For each resource, we first describe the affected environment, i.e., the existing condition of the resource which could be affected by the alternatives. Second, we describe the effects that the three alternatives would have on these resources, including alternative environmental protection and enhancement measures, using the affected environment as the baseline for comparisons. Here is where we address agency and other comments. Third, we describe any unavoidable adverse impacts that would result from the implementation of these protection and enhancement measures.

Wisconsin Power does not propose any new construction, and any potential land disturbance would be limited to minor construction activities associated with recreational access facilities. We conclude that continued project operation would not affect aesthetic, socioeconomic, or land use resources; therefore, these resources are not further discussed.

1. Geology and Soils

Affected Environment

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The Rock River flows in a southerly direction through the business section of the city of Janesville. The Janesville dam and powerhouse were constructed in 1926, about 50 yards downstream of the Centerway Bridge.

Warsaw and Lorenzo are the soil types found along the river's shoreline in the project area. These soils are well-drained and loamy, and underlain with stratified sand and gravel.

A retaining wall, constructed in the 1930s, lines the river's east bank through the city. Sidewalks, trees, shrubs, park benches, and railings are also part of the setting along this bank.

In the early 1960s, the city constructed a similar retaining wall along much of the river's west bank, except for a 300-foot-long section just downstream of the powerhouse. This section of bank remains undeveloped today. Again, sidewalks, trees, shrubs, park benches, and railings are part of the setting along this bank.

Environmental Recommendations

The city of Janesville, in their letter filed May 27, 1994, commenting on the draft EA, states that the 300-foot-long section of unprotected bank downstream of the powerhouse is being eroded because of turbulence below the project dam. They think that this section of river bank should be stabilized. They do not, however, offer any specific recommendations for stabilization in their letter.

In their response letter filed July 13, 1994, Wisconsin Power states that they do not think the project is "totally responsible for the erosion problem."

On July 20, 1994, staff visited the project site and met with representatives of Wisconsin Power, the WDNR, and the city of Janesville to discuss (1) the streambank erosion issue, (2) the need for access to the west bank of the river, and (3) the location of the canoe portage around the project dam. The latter two issues are addressed under the section "Recreational Resources" below.

Staff inspected the 300-foot-long section of exposed streambank during the site visit. Large slabs of concrete and clean rock debris were observed along this stretch of shoreline, a result of past dumping by the city.

During the site visit, staff noted that the portion of exposed streambank appeared typical of shorelines with similar vegetative types. There were approximately 16 trees observed

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there, ranging from 6 inches to 24 inches in diameter. Although some roots were exposed, all the trees appeared healthy. There were no visible signs of recent erosion there.

At the site visit, the city of Janesville, Wisconsin Power, and the WDNR discussed possible resolutions to this erosion issue. The city said that they would like Wisconsin Power to stabilize the streambank with a retaining wall. Wisconsin Power preferred to keep the section in a more natural state instead of building a wall.

The WDNR suggested sloping the bank and installing rock riprap instead of a vertical wall. This would allow the trees to remain and improve the aesthetic value of the area.

As a result of the site visit, staff determined that the exposed section of bank was presently stable because of the concrete slabs and rocks that were dumped there, and there were no signs of recent project-related erosion. Therefore, no bank stabilization is necessary.

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Unavoidable Adverse Impacts

None.

2. Water Resources

Affected Environment

a. General

Indigenous peoples occupied lands in the Rock River basin for thousands of years before settlers arrived in the 1830's. The influx of settlers spurred development along the Rock River - - residentially, municipally, industrially, and agriculturally. There are presently eight FERC-licensed or exempted project dams (table 1) as well as several other dams along the main stem of the Rock River.

Today, the Rock River is a typical midwestern prairie stream -- low gradient and turbid.

Table 1. Existing FERC-Licensed and Exempted Projects on the Main Stem of the Rock River (Commission Staff, 1994).

Project Name	Project No.	Capacity (kW)	License or Exemption
Sears	P-2936	746	Exemption
Upper Sterling	P-7004	2000	Exemption

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Dixon	P-2446	3200	Major License
Rockton	P-2373	1100	Minor Project
Beloit	P-2348	480	Minor Project
Janesville	P-2347	500	Minor License
Lower Watertown	P-10117	289	Exemption
Upper Watertown	P-9947	300	Exemption

The reservoir at the Janesville Project has a surface area of 548 acres and extends upstream for a distance of about 7 miles. The gross storage capacity of the project is 3,675 acre feet at the normal headwater surface elevation of 769.1 feet NGVD.

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b. Streamflow

The historically free-flowing waters of the Rock River are now impeded by a series of dams. The construction of these dams has altered flow conditions in the river by creating a series of long, deep bodies of slack water behind the dams. In addition, consumptive water use has probably decreased the average annual flows in the Rock River from its historic levels.

The United States Geological Survey maintains a stream gaging station (Gage No. 05430500) on the Rock River in Afton, Wisconsin, about 7 miles downstream from the project. The drainage area at the site of the gage is about 3,340 square miles. The drainage area of the Rock River at the Janesville Project dam is about 3,240 square miles.

Wisconsin Power developed flow measurements for the Janesville Project (table 2) by correlating drainage areas of the project dam with that of the Afton gage. The average monthly flow for the period between 1958 to 1987 was estimated to be about 1,395 cfs. The highest flow at the project was estimated to be about 11,991 cfs; the lowest, about 47 cfs.

The Rock River flows exceed the minimum turbine discharge capacity of 500 cfs about 87 percent of the time; the flows exceed the maximum turbine capacity of 1,200 cfs about 60 percent of the time. A minimum spill of 35 cfs is maintained over the dam at all times.

c. Water Use and Quality

The construction of the dams over the last 150 years, coupled with various other developments in the basin, has probably impacted water quality parameters in the Rock River.

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Industrial, agricultural, municipal, and residential effluent discharge and runoff has probably raised the levels of fecal coliform, nitrogen, phosphorous, and heavy metals in the water.

Also, since the slack water reservoirs created by the dams tend to retain the water for longer periods of time, this will probably increase the average water temperatures and decrease the dissolved oxygen levels in the Rock River.

Along with providing wildlife habitat, the Rock River is presently used for waste assimilation, recreation, irrigation, power production, and stock watering. To support these uses, the WDNR requires that waters in the Rock River meet the following specific water quality standards:

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Table 2. The 95 percent, 50 percent, and 10 percent exceedance flows by month at the Janesville Project from 1958 to 1987 (Source: Wisconsin Power & Light Company, 1991).

Month	Exceedance Flows (cfs)		
	95 percent	50 percent	10 percent
January	327	1100	2699
February	337	1066	2821
March	679	2582	6391
April	1128	3986	7905
May	490	2390	5400
June	369	1393	3422
July	297	874	3212
August	224	843	2243
September	214	890	2972
October	293	1090	3962
November	394	1581	3963
December	395	1507	2840
Annual Average	322	1412	4250

1. General - Substances shall not be deposited on the bed or banks nor shall floating or submerged debris be present in such amounts as to interfere with public rights. Substances shall not be present in concentrations or combinations which are

harmful to humans or acutely harmful to plants, animals, or aquatic life.

2. Recreational Use - The fecal coliform count may not exceed 200 per 100 milliliters (ml) as a geometric mean of not less than five samples per month, nor shall the count exceed 400 per 100 ml in more than ten percent of all monthly samples.

3. Fish and Aquatic Life -

Dissolved Oxygen: The dissolved oxygen (DO) concentration shall not be lowered to below five milligrams per liter (mg/l).

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Temperatures: There shall be no temperature change that may adversely affect aquatic life; natural temperature fluctuations shall be maintained; and at no time shall the temperature exceed 89 degrees Fahrenheit.

pH: The pH may range only between six and nine standard pH units.

Other substances: Unauthorized concentrations of substances are not permitted that alone or in combination with other materials are toxic to fish or other aquatic life.

The WDNR maintains two water quality monitoring stations near the Janesville Project as part of the U.S. Environmental Protection Agency's surface water quality monitoring program. The first is located at Indianford, about 12.5 miles upstream of the project. The second, at Afton, about 7 miles downstream of the project.

The WDNR collected water quality data (DO, pH, and temperature) at these two stations for the water years 1982-90. Results of this sampling program are summarized below.

Only two DO samples taken during the sampling program failed to meet the minimum state requirement of 5.0 mg/l. On August 7, 1986, a DO concentration of 4.3 mg/l was recorded at Indianford; on October 5, 1982, a DO concentration of 2.3 mg/l was recorded at Afton.

Only one pH sample from these two monitoring stations was outside the required state range during this sampling period. A pH of 9.1 was recorded at Afton in 1983.

No water temperatures recorded at these two stations during the monitoring period exceeded the state allowable maximum of 89 degrees Fahrenheit (F).

Wisconsin Power conducted their own DO and temperature monitoring program above and below the Janesville dam in August 1989. DO concentrations ranged from 7.2 mg/l to 10.2 mg/l depending on sampling time of day, site location, and water depth. Generally, DO concentrations were lowest in the early morning hours, at upstream sites, and at the deepest readings in the reservoir. Temperature readings ranged from about 72.9 degrees F. to about 74.0 degrees F., with cooler temperatures being recorded in the early morning hours.

Generally, only weak vertical stratification of water DO concentrations and temperatures was evident from samples taken. The difference between upstream and downstream DO and temperature

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conditions was slight. DO differences at corresponding upstream and downstream sampling sites usually differed by less than 0.5 mg/l; temperatures at corresponding upstream and downstream sites usually differed by less than one-tenth of a degree. The results of all DO samples were well above the state allowable minimum of 5.0 mg/l. The results of all temperature samples were all well below the state allowable maximum of 89 degrees F.

Wisconsin Power also conducted a sediment depth probe at the Janesville Project in November of 1989. The purpose of the first investigation was to record sediment depths at nine locations immediately behind the dam and powerhouse. Seven locations revealed sediment depths of less than one inch; the other two locations, between one and three inches.

d. Project Operation

A run-of-river hydropower project has been operating at the Janesville site for the past 70 years. Wisconsin Power proposes to continue operating the project run-of-river with a continuous minimum spill of 35 cfs over the dam. Therefore, as discussed in the Environmental Analysis section to follow in this EA, continuing project operations in a run-of-river mode would not change the existing environment.

e. Water Rights

Of the designated surface water uses for the Rock River listed in the water use section, only irrigation, stock watering, recreation, and power production require diversion of the river water from its channel. Of these, only irrigation, stock watering, and recreation consume a percentage of the water withdrawn.

The Janesville Project does not consume water and does not affect water diversion on the Rock River. Therefore, continued operation of the Janesville Project would not require any water rights nor affect existing water rights.

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The WDNR recommends that, to protect water quality and to preserve existing beneficial downstream uses, the project continue to operate as a run-of-river facility, where instantaneous inflow equals instantaneous outflow.

Wisconsin Power proposes to maintain run-of-river operations where project inflow equals project outflow to the extent allowable by the operations of their facilities.

Since the project has maintained run-of-river operations in the past, and since no concerns have arisen as a result of this

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mode of operation (i.e., water quality or fishery concerns), we recommend that Wisconsin Power continue to operate the Janesville Project run-of-river, with instantaneous inflow equal to instantaneous outflow, to extent allowable by project operations.

Since Wisconsin Power does not propose any changes to the operations of the Janesville Project, which has been run-of-river in its 70 years of operations, and since there is no new construction associated with this relicensing, there would be no changes in cumulative impacts to water resources in the Rock River basin caused by the continued operation of the Janesville Project.

Unavoidable Adverse Impacts

None.

3. Fishery Resources

Affected Environment

Prior to development along the Rock River, the river provided fish habitat similar to typical northern free-flowing rivers. Walleyes, northern pike, muskies, and yellow perch were probably the abundant predator species, while redhorse, minnows, and darters were probably the dominant forage species.

Dam construction along the Rock River has increased the diversity of the aquatic environment by transforming a free-flowing river into a series of alternating flowing stretches and reservoirs. Different aquatic species have been established as a result of this change.

Today, the Rock River contains fish species adapted to a warmer, slower-moving, riverine system as well as some coldwater species. Top game species found there include channel catfish, bullheads, smallmouth bass, walleye, northern pike, and largemouth bass. Fish surveys have shown that channel catfish are the most abundant predator fish above the Janesville dam, and bullheads, the most dominant below the dam. Catfish were found to be the most significant gamefish in the Rock River (Bush, et. al., 1990).

Panfish species such as bluegill, black crappie, and white bass are present both above and below the dam, although they are more numerous above the dam.

Roughfish, such as carp, buffalo, suckers, redhorse, quillback, are also very abundant both above and below the dam. In fact, carp and buffalo are both harvested commercially in the project area. Commercial catch records show that 237,000 rough fish have been harvested above the Janesville dam, and 42,000

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below the dam. The greater harvest above the dam is probably due to better access and easier harvesting (Bush, et. al., 1990).

Forage fish such as shiners, silversides, minnows, logperch, darters, and stonerollers, were found throughout the Rock River, both above and below the Janesville dam.

There are no anadromous fish species found in the Rock River basin.

No federally-listed threatened or endangered aquatic species are known to occur in the project area (Department of the Interior 1993). The state-endangered gravel chub, however, is relatively abundant in the Rock River below the Beloit dam, which is located about 17 miles downstream from the Janesville Project.

In 1989 and 1990, the WDNR conducted surveys, funded by Wisconsin Power, to determine the feasibility of introducing the gravel chub from below the Beloit dam to an area below the Monterey dam, which is located about two miles downstream from the Janesville Project. Based on the findings of these surveys, the WDNR transplanted about 110 gravel chubs to that site in 1991.

Environmental Impacts and Recommendations

The WDNR recommends that, to protect water quality, preserve fish habitat, and preserve beneficial downstream uses of the resource, the project be operated run-of-river, where instantaneous inflow equals instantaneous outflow. The WDNR also recommends that Wisconsin Power maintain the reservoir water surface elevation at 769.1 ± 0.3 feet NGVD to the extent allowed by project operation.

In addition, the WDNR recommends that staff gages be installed and maintained in accessible locations near the dam to allow the public to monitor both headwater and tailwater surface elevations.

Wisconsin Power proposes to continue to operate the Janesville Project run-of-river with instantaneous inflow equal to instantaneous outflow to the extent allowed by project operation.

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Wisconsin Power has recently converted plant operations from manual to automatic, and as a result of this increased precision, they propose to maintain the reservoir surface level at 769.1 ±0.3 feet NGVD, to the extent allowed by project operations. Wisconsin Power plans to remotely monitor the headwater elevations through a recently installed headwater transducer.

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Continued run-of-river operations at the Janesville Project would help maintain the existing fishery in the Rock River. Since the present fish community in the project is highly rated, and the public use of the fish resource is unencumbered, we do not believe the project's operations have adversely affected the river's fishery.

Furthermore, since no data or historical information shows that the project has affected, or in the future will affect, the beneficial uses of the fish resource, we believe that the proposed run-of-river project and maintenance of the headwater at 769.1 ±0.3 feet NGVD would adequately protect the existing fishery in Rock River and adequately provide a fishery which would meet the public demand for use of fish resources in the future.

We recommend that, for any license issued for this project, Wisconsin Power prepare a monitoring plan to ensure run-of-river operation of the project. This plan should be prepared in consultation with the WDNR and Interior, and include:

- ù the method of monitoring and recording reservoir surface elevations;
- ù a schedule for implementing the monitoring and recording of the reservoir surface;
- ù a way of providing the monitoring data to interested agencies within 30 days from the agencies' request for the data; and
- ù proof of agency consultation in preparing the plan, including consultation letters and agency comments.

In addition, we recommend that Wisconsin Power notify the WDNR whenever the reservoir surface level cannot be maintained within the prescribed 769.1 ±0.3 feet NGVD bounds. This coordination would help the WDNR better monitor operations at the Janesville Project.

In order to enhance the gravel chub population in the Rock River, the WDNR, in cooperation with Wisconsin Power, recently transplanted 110 gravel chub from an area below the Beloit Project to an area about two miles downstream from the Janesville Project. The WDNR requested that Wisconsin Power provide \$1,000 over two years (1994 and 1995) to monitor the success of the

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gravel chub transplant.

We believe that monitoring the survival of the transplanted gravel chubs could help determine the success of the relocation program. Therefore, we recommend that Wisconsin Power provide

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\$1,000 to the WDNR over a two year period to monitor the survival of the transplanted gravel chubs⁵

Although the Janesville Project, coupled with the other dams constructed on the main stem of the Rock River, historically contributed to changes in fish population and species composition, the fishery has stabilized over the years. Continued project run-of-river operations will not likely contribute to cumulative impacts to fishery resources in the Rock River basin.

Unavoidable Adverse Impacts

None.

4. Terrestrial Resources

Affected Environment

In the mid-1800's, an oak savanna community, consisting of grasslands and tall, widely-spaced oak trees, followed the central valley of the Rock River. Beyond the river valley's oak savanna, the dominant vegetation was prairie. The destruction of adjoining prairie lands by cultivation, and the resultant elimination of periodic prairie fires, turned the neighboring savanna in the valley into a closed oak forest. By 1980, the river valley forest was replaced by agricultural, industrial, and residential areas or broken up into tracts of less than 40 acres.

As previously mentioned, the project reservoir extends about 7 miles upstream from the dam location. The lands around the dam and powerhouse are used primarily for commerce and industry. The upstream reservoir area within the city limits is typically lined with residential areas and parkland. The reservoir shoreline area beyond the city limits is primarily wooded, with some agricultural and residential development. Wetlands are located along the river and its tributaries. Wetland plant associations include marsh and lowland forest.

Interior (Department of the Interior 1993) states that two plants federally listed as threatened -- the prairie bush clover (*Lespedeza leptostachya*) and the eastern prairie fringed orchid (*Platanthera leucophaea*) -- occur in Rock County. They further state, however, that neither plant species occurs on project lands.

5 The WDNR estimated that the cost to monitor the transplanted gravel chub would be about \$800. Wisconsin Power, however, agreed to provide \$1,000 for the monitoring.

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White-tailed deer is the principal game species using habitat in the project area. The most common waterfowl using the reservoir are wood ducks, Canada geese, and common goldeneyes. No federally listed threatened or endangered animal species occur in the project area (Department of the Interior 1993).

Environmental Impacts and Recommendations

The threatened prairie bush clover and eastern prairie fringed orchid occur in Rock County, but neither grow on project lands. Interior says the project would not affect either plant (Department of the Interior 1993). We concur.

We have no evidence that continued operations of the Janesville Project would cumulatively impact terrestrial resources in the Rock River basin.

Unavoidable Adverse Impacts

None.

5. Aesthetic Resources

Affected Environment

The Janesville Project is situated in an urban setting with typical central business district development existing in the immediate project vicinity. Narrow strips of forest line portions of the river banks. The remainder of the land surrounding the project area is used for agricultural production.

The existing project facilities have been in place since 1926 and are compatible with the surrounding landscape. Wisconsin Power recently replaced the existing substation with padmounted transformers, landscaped around these transformers, and relocated a fence to enhance aesthetic resources at the site.

Environmental Impacts and Recommendations

Wisconsin Power proposes to maintain a 35 cfs spill over the project dam to enhance aesthetic resources there. Although this spill was not mandated by their original license, Wisconsin Power has maintained this spill in the past for aesthetic purposes.

No entity commented or recommended such a spill be made part of any new license issued for this project.

We believe that maintaining a 35 cfs spill over the project dam would enhance aesthetic resources at the project. Therefore, we recommend that Wisconsin Power continue to maintain this

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Continued operation of the Janesville Project coupled with the enhancement measure discussed above would not cumulatively impact aesthetics in the Rock River basin.

6. Cultural Resources

Affected Environment

Wisconsin Power conducted a cultural resources survey for the Janesville Project (Sal kin 1991). The survey report identifies eleven archeological sites as eligible for inclusion in the National Register of Historic Places.

Most of these sites date in the Woodland Tradition (500 B.C. - 1600's A.D.), with the majority dating specifically to the Late Woodland State (300-1600's A.D.). Two sites have Late Archaic Stage Components (3000 - 500 B.C.). One site has an Early Archaic Stage Component (8000 - 5000 B.C.). Several sites have multiple occupations representing different time periods. These archeological sites are significant for the potential they have to contribute knowledge about the prehistory of this portion of the Rock River basin.

The Wisconsin State Historic Preservation Officer (SHP0) states that none of the Janesville Project facilities are eligible for inclusion in the National Register (Dexter 1992). We concur.

Environmental Impacts and Recommendations

Shoreline erosion has affected or has the potential to affect the historical integrity of the eleven archeological sites identified in the project area. (Sal kin 1991).

On December 30, 1993, the Commission staff, the SHP0, and the Advisory Council on Historic Preservation executed a state-wide PA to avoid and mitigate impacts to archeological and historic sites listed or eligible for inclusion in the National Register for all new and amended licenses for existing projects in Wisconsin issued by the Commission. The PA requires development and implementation of a cultural resources management plan to avoid or mitigate impacts to National Register listed or eligible sites affected by the project. This PA supersedes the plan and agreement proposed by Wisconsin Power (Wisconsin Power and Light Company 1992).

The effects of the project on National Register listed or eligible sites can be avoided or mitigated if the PA is implemented. We will recommend, as a condition of any license issued for the project, implementation of this PA to protect the National Register sites identified in the project area.

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Unavoidable Adverse Impacts

None.

7. Recreational Resources

Affected Environment

Prior to the development of the dams along the main stem of the Rock River, the river provided an unimpeded navigable waterway for boating and travel over its entire 318-mile length. Now, although the river is still navigable, boaters are forced to portage the dams.

Coinciding with the development of the Rock River basin, numerous recreational parks have been established. Presently, according to the city of Janesville's 1985 Parks and Open Space Plan (City of Janesville, 1985), 53 public parks have been established in and around the city of Janesville.

Two parks designated "regional" serve the project area: Riverside Park (87 acres) and Rockport Park (251 acres). Regional parks typically offer such recreational facilities as picnic areas, playgrounds, sports fields, and open space.

Two parks designated "community" also serve the project area: Traxler Park (30 acres) and Monterey Park (42 acres). Community parks typically offer such facilities as picnic areas, tennis courts, ball fields, and shelters. Traxler Park also contains a public ice rink.

In addition, the Kiwanis Bike Trail, a segment of the Ice Age National Scenic Trail, runs through the project area.

Eight boat ramps serve the project area, two of which are owned and maintained by the city.

The most popular activities in the project area are boating and fishing, though people also engage in swimming and hiking there.

There is an existing canoe portage takeout on the west bank of the river; the takeout, however, is overgrown and poorly maintained. There is no designated put-in below the dam.

The WDNR indicated that the section of the Rock River from the upstream border of the city of Janesville to the Illinois state line (located about 15 miles downstream of the project) is designated as a scenic urban waterway under Wisconsin statutes. This legislation establishes a mechanism for state and local involvement in managing the stretch of river to afford adequate recreational opportunities to both local residents and visitors.

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Environmental Impacts and Recommendations

The WDNR recommends that Wisconsin Power provide additional access to the west bank of the river downstream of the project for bank-fishing.

Wisconsin Power does not propose to provide such access because (1) they do not own suitable land downstream of the dam, and (2) they do not believe that there is a demonstrated need for such access since there is barrier-free access for people and boats just downstream of the dam on the east side of the river.

Instead, Wisconsin Power proposes to cooperate with the city of Janesville to incorporate such access into future development plans for the area.

As described below, staff believes that a suitable site for public access is located on the city-owned land on the west bank of the river just downstream of the project tailrace. This is a 300-foot-long undeveloped section of shoreline now receiving informal fishing use. The site would require minimal development to serve as river access for fishing.

Wisconsin Power proposed to use the WDNR's suggested canoe portage location. Under this proposal, the take-out would be at its present location just upstream of the dam on the west bank of the river; the put-in would use the flight of stairs leading to water on the east bank of the river just downstream of the dam. This route would include traversing a city street and crossing a bridge over the Rock River. Wisconsin Power also proposed to provide signage to identify this portage route.

In their letter filed May 27, 1994, commenting on the draft EA, the city of Janesville said that they do not agree with Wisconsin Power's proposal to use the city-owned stairway located on the east bank for a canoe put-in. They say that the stairway is for emergency access and not for public use.

The city, instead, recommended that a canoe put-in be located on the west bank of the river immediately downstream of the powerhouse. This area is part of the 300-foot-long exposed section of streambank discussed in the "Geology and Soils" section above.

According to their response letter filed July 13, 1994, Wisconsin Power thinks that locating the canoe put-in so close to the powerhouse, as the city of Janesville recommends, would not be safe.

Staff inspected possible canoe portage locations during the July 20, 1994, site visit attended by Wisconsin Power, the WDNR, and the city of Janesville. In addition to potential problems

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using the street as a portage route and the city's objections to Wisconsin Power's proposed route, the proposed stairway put-in is very narrow with no landing area suitable for launching boats.

At the site visit, all parties agreed that the best put-in location for the canoe portage would be the downstream end of the 300-foot-long unwallied streambank located immediately downstream of the powerhouse. At that distance from the powerhouse, it was determined that the discharge would dissipate and would not affect the launching of canoes. Additionally, the parties agreed to cooperate in developing the site for public access for fishing.

Staff recommends that the canoe portage put-in be relocated to the streambank on the west side of the river below the powerhouse. Wisconsin Power restated its objections to the use of the site for that purpose in a letter dated August 8, 1994. However, we believe that the site is safer than the put-in originally proposed, especially if the launch area is at the downstream end of the 300-foot-long section of streambank.

The staff also agrees that Wisconsin Power should provide signage to identify the portage around the project dam.

The WDNR also recommends that dam warning signs be maintained at all times. They did not offer specific suggestions.

Dam warning signage is currently in place at the project facility. All signage is currently in compliance with Commission regulations.

Based on the above, staff recommends that Wisconsin Power develop a plan, in consultation with the WDNR and the city of Janesville, to develop the 300-foot-long section of undeveloped streambank downstream of the powerhouse for public access for fishing and for use as a canoe portage put-in. The plan should address public access at the site, should show the location and extent of development of the canoe put-in, and should also show the location of the canoe take-out above the dam. In addition, the plan should show the locations and wording of appropriate signs to mark the canoe portage.

Continued operation of the Janesville Project coupled with the proposed enhancement measures discussed above would cause minor beneficial cumulative impacts to recreation in the Rock River basin.

Unavoidable Adverse Impacts

None.

C. No-Action Alternative

Under the no-action alternative, Wisconsin Power would continue to operate under the terms of the original license. The environmental enhancements that Wisconsin Power proposes or that staff recommends would not occur. In our analysis, we find no evidence of substantial continuing impacts of current project operations, i.e., no resources are presently declining as a result of project operations. Therefore, no-action would not change the existing physical, biological, or cultural resources of the project area.

VI. DEVELOPMENTAL ANALYSIS

In previous sections of this EA, we assessed the effects of continued operation of the Janesville Project on the environment. In this section, we look at the developmental purposes of the project to see what effect proposed environmental measures have on the project power benefits. We also summarize our findings on whether the project would continue to have economic benefits over the license term.

We consider that a utility-owned project has economic benefits if the estimated total costs over the license term are less than the estimated costs, using alternative power resources, over the same period. We refer to the difference between the project cost and the alternative power cost as the net benefit. We base our estimate of the cost of alternative power on: (1) the cost of replacing the project's 0.50 MW of dependable capacity; and (2) the cost of generating 2.03 GWh annually, using fossil-fueled facilities.

Since their application for relicense was filed, Wisconsin Power has carried out two enhancements at the Janesville Project: (1) to enhance the aesthetics of the project area, Wisconsin Power has replaced the substation with padmount transformers, relocated the fence, and landscaped around the transformers; and (2) to improve the project's operations, Wisconsin Power has upgraded the operation from manual to automatic.

Besides these measures, we recommend Wisconsin Power's proposal to provide signage that identifies the portage route around the dam. We estimate that providing this signage would cost Wisconsin Power about \$1,500.

Besides the small signage cost, none of the proposed environmental enhancement measures would have any effect on project generation or dependable capacity.

Based on our estimate of project costs and the value of power produced, we find the project would have levelized net

annual benefits of about \$31,000 over a new license period of 30 years.

VII. COMPREHENSIVE DEVELOPMENT AND RECOMMENDED ALTERNATIVE

Section 4(e) of the FPA directs the Commission to consider equally a broad range of developmental and environmental purposes in making licensing decisions. Section 10(a) directs the Commission to license projects that are best adapted to a comprehensive plan for improving or developing a waterway for a broad range of developmental and environmental purposes. In determining whether, and under what conditions, to license a project, the Commission must weigh the various economic and environmental tradeoffs involved in the decision.

Based on our independent review and evaluation of the three alternatives analyzed -- the proposed project, the proposed project with our additional recommended enhancements, and the no-action alternative -- we have selected the proposed project with our additional recommended enhancements as the preferred option.

We recommend this option because (1) issuance of new license would allow Wisconsin Power to continue to operate the project as an economically beneficial and dependable source of electric energy for its customers, (2) the 500-kW project would eliminate the need for an equivalent amount of fossil-fuel-derived energy and capacity, which helps conserve these nonrenewable resources and limits atmospheric pollution, and (3) we believe the public benefits of the selected alternative would exceed those of Wisconsin Power's proposal and the no-action alternative.

Only one of our recommended enhancement measures involves a cost. Wisconsin Power has agreed to provide signage that identifies the portage route at an estimated cost of \$1,500.

The recreational benefits provided by this enhancement measure would improve recreational resources in the project area, while not substantially affecting the project economics.

Based on our review under sections 4(e) and 10(a) of the FPA, the Janesville Project would be best adapted to a comprehensive plan for developing the Rock River if licensed with the staff's modifications of Wisconsin Power's proposal.

VIII. RECOMMENDATIONS OF FISH AND WILDLIFE AGENCIES

Section 10(j)(1) of the FPA requires the Commission to protect, mitigate damages to, and enhance fish and wildlife resources affected by a project with license conditions that are based upon the recommendations of the federal and state fish and wildlife agencies received under the Fish and Wildlife Coordination Act. When the Commission believes that any fish and

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10(j)(1), may be inconsistent with applicable law, section 10(j)(2) requires the Commission and the agency to attempt to resolve the inconsistency.

In their letter, dated September 20, 1993, the WDNR made eight specific recommendations for terms and conditions of any license issued for the Janesville Project (see table 3). Two of these recommendations -- run-of-river operations and headwater level maintenance -- are within the scope of section 10(j) and were found to be consistent with the applicable law. We adopted both of these recommendations for the protection of fishery resources in the project area.

Table 3. Analysis of Fish and Wildlife Agency Recommendations for the Janesville Project No. 2347 (Commission Staff, 1994).

Recommendation	Agency	Within Scope of Sec. 10(j)	Conclusion
Run-of-river operations	WDNR	Yes	Adopted
Maintain headwater level at 769.1 ±0.3 feet NGVD	WDNR	Yes	Adopted
Providing access on the west bank of the river downstream from the dam	WDNR	No-not a specific measure to protect fish and wildlife.	Adopted
Dam safety inspection reports to WDNR	WDNR	"	will be addressed in Commission order
Emergency Action Plan, Operation and Maintenance Plan, and other safety information to WDNR	WDNR	"	"
Maintenance of dam warning signs and canoe portage	WDNR	"	Adopted

Staff gages to allow public to monitor headwater and tailwater	WDNR	"	Adopted in part: A plan to monitor
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Level s		ROR is recommended by staff
Retain jurisdiction to issue orders, permits, and approvals needed under state law	WDNR "	will be addressed in Commission order

The other six recommendations are not specific measures to protect fish and wildlife, and thus are not within the scope of section 10(j). We did, however, adopt two of these recommendations -- providing access on the west bank of the river for fishing and maintaining warning signs.

We partially adopted a third recommendation -- installing staff gages to monitor headwater and tailwater elevations. The WDNR recommended that staff gages be installed so that the public can monitor headwater and tailwater elevations. We believe that Wisconsin Power's existing automatic headwater monitoring system is adequate to monitor the headwater elevation at the project; however, we do not believe there is a need to install a gage to monitor the tailwater elevation.

The three remaining recommendations listed in table 3 -- service of dam safety reports, preparation of an emergency action plan, and ability to retain jurisdiction to issue orders, permits, and approvals -- are beyond the scope of this EA but will be addressed in any order issued for this project.

IX. CONSISTENCY WITH COMPREHENSIVE PLANS

Section 10(a)(2) of the FPA requires the Commission to consider the extent to which a project is consistent with federal and state comprehensive plans for improving, developing, and conserving waterways affected by the project. Ten plans address resources relevant to the Janesville Project. They include:

- ù National Park Service. 1985. The Nationwide Rivers Inventory. United States Department of the Interior.
- ù Rock County, Wisconsin. 1985. Park and Outdoor Recreation Plan, 1986-91. Rock county Planning and Development Agency.
- ù U. S. Department of Interior. 1986. North American Wildlife Management Plan. Twin Cities, Minnesota.

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- ù U. S. Department of Interior and Environment Canada. 1986. North American Waterfowl Management Plan.
- ù Wisconsin Department of Natural Resources. 1979. Rock River Basin Area-wide Water Quality Management Plan.

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Madison, Wisconsin.

- ù Wisconsin Department of Natural Resources. 1985.
Statewide Comprehensive Outdoor Recreation Plan, 1986-91.
- ù Wisconsin Department of Natural Resources. 1986.
Wisconsin Water Quality: Report to Congress. Madison, Wisconsin.
- ù Wisconsin Department of Natural Resources. 1991. Lower Rock River Basin Water Quality Management Plan. Madison, Wisconsin.
- ù Wisconsin Department of Natural Resources. 1991.
Wisconsin Statewide Comprehensive Outdoor Recreation Plan for 1991-96. Madison Wisconsin.
- ù Wisconsin Department of Natural Resources. 1992.
Wisconsin Water Quality Assessment Report to Congress. Madison, Wisconsin.

We find no conflicts with these plans.

X. FINDING OF NO SIGNIFICANT IMPACT

We find that none of the resources that we have examined in this EA would suffer significant adverse project-specific or cumulative impacts under either Wisconsin Power's proposal for continued operation of the project or staff's modification of Wisconsin Power's proposal. Therefore, an environmental impact statement is not required.

On the basis of the record and this EA, issuing a new license for the project, with the environmental measures we recommend, would not be a major federal action significantly affecting the quality of the human environment.

XI. LITERATURE CITED

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XII. LIST OF PREPARERS

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