

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Martha O. Hesse, Chairman;
Charles G. Stalon, Charles A. Trabandt,
Elizabeth Anne Moler and Jerry J. Langdon.

Village of Gresham, Wisconsin) Project No. 2484-001

ORDER ISSUING NEW LICENSE
(Minor Project)

(Issued January 24, 1989)

On August 4, 1986, the Village of Gresham, Wisconsin (Village), a municipal corporation under Wisconsin law, filed an application for new license under Part I of the Federal Power Act (FPA) to operate and maintain the Upper Red Lake Dam Project No. 2484, located in Shawano County, Wisconsin, on the Red River, a navigable waterway of the United States. 1/ The original license for the project, which was issued on January 16, 1974, 2/ with an effective date of January 1, 1938, expired on December 31, 1987. The project has been operating under an annual license since then.

Notice of the application has been published. No protests or motions to intervene have been filed in this proceeding, no agency has objected to issuance of this license, and no competing application has been filed. In determining whether to issue this license, the Commission has considered all comments filed by interested agencies and individuals.

Section 10 of the Federal Power Act

Section 3 of the Electric Consumers Protection Act of 1986 (ECPA), Pub. L. No. 99-495 (Oct. 16, 1986), amended Section 10 of the FPA, 16 U.S.C. § 803, with regard to various aspects of the Commission's hydroelectric program. Section 15(a)(2) of the FPA, as added by Section 4 of ECPA, provides that the requirements of Section 10 of the FPA are applicable to Commission consideration of applications for new license under Section 15 of the FPA. Following is a discussion of the relevant provisions of Section 10.

1/ By order issued July 13, 1965, the Commission determined that the Red River is navigable from its confluence with the Wolf River upstream from the project site to a point downstream of the site. See 34 F.P.C. 33, 37 (1965).

2/ 51 F.P.C. 265 (1974).

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1. Recommendations of Federal and State Fish and Wildlife Agencies (Section 10(j))

Section 10(j) of the FPA, as amended by ECPA, requires the Commission to include license conditions based on recommendations of federal and state fish and wildlife agencies for the protection, mitigation, and enhancement of fish and wildlife. The Environmental Assessment (EA) prepared for the Upper Red Lake Dam Project No. 2484, which is attached to and made a part of this license, addresses the concerns of the federal and state fish and wildlife agencies. The provisions of the license are consistent with those recommended by the federal and state fish and wildlife agencies.

2. Comprehensive Plans (Section 10(a)(2)(A))

Section 10(a)(2)(A) of the FPA, as amended by ECPA, requires the Commission to consider the extent to which a project is consistent with federal or state comprehensive plans (where they exist) for improving, developing, or conserving a waterway or waterways affected by the project. The Commission's interpretation of "comprehensive plan" under Section 10(a)(2)(A) ^{3/} was revised on rehearing by order issued April 27, 1988. ^{4/} On rehearing, the Commission instructed the Director, Office of Hydropower Licensing, to request the state and federal agencies to file plans they believe meet the revised guidelines. No plans relevant to this project were filed in response to this request.

The Commission reviewed two plans that address various aspects of waterway management in relation to the proposed project. ^{5/} No conflicts were found.

3. Recommendations of Other Agencies (Section 10(a)(2)(B))

Section 10(a)(2)(B) of the FPA requires the Commission to consider the recommendations of relevant federal and state agencies exercising administration over flood control, navigation, irrigation, recreation, cultural and other relevant resources, and the recommendations of Indian tribes affected by the project. With the exception of the recommendations regarding recreational resources discussed below, no specific state or

^{3/} Order No. 481, 52 Fed. Reg. 39,905 (Oct. 26, 1987), III FERC Stats. & Regs. ¶ 30,773 (1987).

^{4/} Order No. 481-A, 43 FERC ¶ 61,120 (April 27, 1988).

^{5/} Statewide Comprehensive Outdoor Recreation Plan, 1986, Wisconsin Department of Natural Resources; The Wolf River Basin Areawide Water Quality Management Plan, 1980, Wisconsin Department of Natural Resources.

federal agency comments or recommendations were made addressing such matters.

The Wisconsin Department of Natural Resources (WDNR) and the United States Fish and Wildlife Service (FWS) recommended the upgrading of two existing boat access sites. On December 19, 1986, the Village filed a conceptual plan to upgrade the boat access sites and to develop additional recreational facilities, which was approved by WDNR and FWS. Article 405 of the license requires the Village, after consultation with WDNR and FWS, to file with the Commission for approval a final plan and design drawings for these facilities.

4. Consumption Efficiency Improvement Program (Section 10(a)(2)(C))

Section 10(a)(2)(C) of the FPA requires the Commission to consider the applicant's electricity consumption efficiency improvement programs, including its plans, performance, and capabilities for encouraging or assisting its customers to conserve electricity cost-effectively, taking into account the relevant requirements of state regulatory authorities.

By letter dated December 12, 1986, the Village submitted to the Commission a supplemental filing containing general and specific data on the composition of its service area and a description of programs existing or under consideration. The Village's small operation does not generate sufficient revenues to justify a formal, cost-effective energy conservation program. The Village's conservation effort therefore consists primarily of disseminating information in brochures and other media regarding the benefits derived from the use of good energy management practices. The Wisconsin Public Service Commission (WPSC) has confirmed that the Village's ongoing consumption efficiency improvement programs conform to WPSC's recommendations.

Section 15(a) of the Federal Power Act

Section 4 of ECPA amended Section 15 of the FPA to specify a number of factors the Commission is required to consider in acting on applications for new license following the expiration of existing licenses.

1. The plans and abilities of the applicant to comply with the articles, terms, and conditions of any license issued to it and other applicable provisions of Part I of the FPA (Section 15(a)(2)(A))

The Commission has reviewed the plans and considered the abilities of the Village to comply with the articles, terms, and conditions of any license issued to it and other applicable provisions of Part I of the FPA. As discussed below, the

Village's past record of compliance with the terms and conditions of its license has not been exemplary. However, the Village states that it plans and is able to continue to operate and maintain the project in accordance with the terms and conditions of any new license. Furthermore, Article 501 of the license, which is discussed below, will help ensure that all provisions of the license and Part I of the FPA are complied with.

In addition, the current cost of operating and maintaining the project is approximately \$4,000 per year, with the Village paying approximately \$39,000 annually on a loan associated with the project. Since the loan will be paid off by 1991, the Village should have additional funds available to hire additional personnel to supplement the six full-time and one part-time employees of its electrical system if necessary to meet its obligations under the license. Thus, it appears that the Village would have adequate resources to meet any requirements under a new license. We therefore conclude that the Village's plans and abilities are adequate to comply with the articles, terms, and conditions of this license and other applicable provisions of Part I of the FPA.

2. The plans of the applicant to manage, operate and maintain the project safely (Section 15(a)(2)(B))

The Village states that it is operating the generating facilities safely, and its records indicate that no injury or time loss has occurred due to an accident to an employee or to the public. The project is operated in coordination with the Village's downstream Weed Dam facility on a run-of-river basis, which causes no extreme fluctuations, thus eliminating any hazard to fishermen and boaters.

The Village has prepared an emergency action plan (EAP) with a notification procedure to the public in case of a potential threat to downstream life or property. To ensure public safety downstream of the dam during all conditions, the Commission's Division of Dam Safety and Inspections, by letter dated September 10, 1986, directed the Village to inspect the dam daily to identify any adverse conditions. By letter dated September 15, 1987, the Village was reminded of the requirement to install a boat restraining barrier upstream of the sluice gate section of the dam, which has been installed.

As discussed below, the Village has not timely complied with all requirements regarding the EAP and other dam safety requirements. However, Article 501 should ensure compliance with all dam safety provisions in the future. Based upon our review of the specific information provided by the Village on various aspects of the project that affect public safety and a review of the project records and inspection reports of the Commission's

Regional Office, we conclude that the Village will manage, operate, and maintain the project safely.

3. The plans and abilities of the applicant to operate and maintain the project in a manner most likely to provide efficient and reliable electric service (Section 15(a)(2)(C))

The Village indicates that it will continue to operate and maintain the project as before and that it has no current contracts which would affect the manner in which the project is operated. There has been no lost generation due to unscheduled outages at the facilities over the last five years.

The Village also indicates that it has no plans to increase generation at the facility, since the existing turbines harness most of the available water power. Operation of the project is easily coordinated with the Village's downstream facility and with the Village's electrical system. In addition, the Village continues to increase the efficiency of its electrical system by undertaking improvements such as the replacement of old transmission facilities.

Based on the operation inspection reports of the Commission's Chicago Regional Office and the Village's past performance and future plans to operate the project, we conclude that the Village has operated its project in an efficient and reliable manner and will continue to do so under a new license.

4. The need of the applicant over the short and long term for the electricity generated by the project to serve its customers (Section 15(a)(2)(D))

Project No. 2484 is part of the Village's electric generating resource base and is currently used to meet part of its system load requirements. The project is an inexpensive renewable source of energy that does, and would continue to, provide benefits through the displacement of expensive and less environmentally-acceptable thermal generation.

The Village's end-use customers would experience significant increases in their electric bills if the 2,150 megawatthours (MWh) of relatively inexpensive power from the project were lost. At present, total unit production cost of power at the project is 20 mills per kilowatt hour (mills/kWh), which represents a total annual cost of \$43,325. However, Wisconsin Power and Light Company (WPL), the major utility serving the Village's firm power requirements, states that the equivalent and lowest cost replacement power rates would be approximately 43.8 mills/kWh. Thus, if the Village had to purchase the equivalent amount of energy at the rate of 43.8 mills/kWh, the total annual cost for this power would be \$94,170, and the Village's 848 end-use

customers would have to pay an additional \$50,845 per year. If this additional energy were used equally by the 848 end-use customers, each customer would pay, on the average, an additional \$59.96 for electricity annually.

Based on the above data, we conclude that the electricity generated by the project is needed by the Village to serve its customers over the short- and long-term.

5. The applicant's existing and planned transmission services (Section 15(a)(2)(E))

Review of the license application and the Village's supplemental filing of December 12, 1986, indicate that the Village's existing project transmission service should not change if a new license were not granted. No transmission reconfiguration or upgrading of transmission facilities would be required, and only minimal increases in transmission line losses would occur if the Village were required to purchase replacement power from WPL.

Upon issuance of a new license to the Village, no changes or modifications of the existing transmission system, its operation, or load characteristics, would occur. The Village's existing transmission services appear adequate for continued use by the project without any future additions.

6. Whether the plans of the applicant will be achieved, to the greatest extent possible, in a cost-effective manner (Section 15(a)(2)(F))

With a hydraulic capacity of 166.8 cubic feet per second, the run-of-river project would continue to efficiently utilize the flows of the Red River. The Village does not propose any new development and does not plan to increase capacity. The Village's plans contemplate continued operation and maintenance of the existing project. There is no evidence that the Village has not operated the project in a cost-effective manner in the past, and the history of the project supports the conclusion that the Village's plans will continue to be achieved to the greatest extent possible in a cost-effective manner.

7. Such other factors as the Commission deems relevant (Section 15(a)(2)(G))

As discussed in the attached EA, the issuance of a new license for the project would not result in any major, long-term adverse environmental impacts.

8. The applicant's record of compliance with the terms and conditions of the existing license (Section 15(a)(3)(A))

A review of the Village's compliance history reveals that, during the period from January 1975 through September 1987, its record of compliance with the terms and conditions of the license was unsatisfactory. Specifically, the Village repeatedly failed to: (1) comply with the requirements of Articles 13, 14, and 15 of its license within the time periods specified in those articles; 6/ (2) file required Form 80 recreation reports in a timely manner; and (3) file annual updates on its EAP and conduct annual tests of the EAP until specifically requested by Commission staff. 7/ In addition, the Village delayed installing safety features ordered by Commission staff pursuant to Commission regulations to protect the public in the use of project lands and waters. 8/ In each instance of non-compliance, the Village demonstrated cooperativeness only after receiving telephone calls and written correspondence, in the form of reminder and delinquency letters, from Commission staff. 9/

Although it is clear that the Village has shown a lack of diligence and conscientiousness in carrying out its obligations under its previous license, we do not believe, since there are no competing applications, that the Village's compliance record warrants denial of its application for new license for the project. Of the fifteen articles in the previous license, the Village satisfactorily complied with twelve, and ultimately complied with the remaining three, though after some delay.

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- 6/ Article 13 required the filing of Exhibit K (project map and boundary) and Exhibit R (recreation plan) within one year of license issuance. Article 14 required the licensee to replace the spillway stoplogs with lift gates and appropriate hoisting devices within one year of license issuance. Article 15 required the filing or revised Exhibit L drawings before initiation of construction.
- 7/ Part 12 of the Commission's regulations (Safety of Water Power Projects and Project Works) requires licensees to file updates on, and conduct tests of, EPAs annually. See 18 C.F.R. § 12.24, 12.25 (1988).
- 8/ 18 C.F.R. Part 12, Subpart A, requires licensees to comply with requirements imposed by the Commission to, inter alia, protect the public in the use of project lands and waters.
- 9/ The licensee also failed to comply with Part 8 of the Commission's regulations (18 C.F.R. Part 8 (1988)), which govern recreational opportunities and development at licensed projects, until requested to do so following an inspection of the project.

Consequently, although the Village's compliance breaches were significant, they were not serious enough to conclude that the Village is unfit to continue to operate the project. However, special precautionary measures must be taken to ensure that the Village complies with the terms and conditions of the new license in a more satisfactory manner. Accordingly, we are adding to the license Article 501, which requires the Village to develop and file, for Commission approval, a Hydropower Compliance Management Program that will ensure compliance with the terms and conditions of the new license and permit the Commission to monitor progress toward compliance in a more effective manner.

Pursuant to Section 31 of the FPA, as added by Section 12 of ECPA, the Commission may revoke a license or assess civil money penalties of up to \$10,000 per day for violations of any term or condition of a license or provision of Part I of the FPA occurring after the October 16, 1986 enactment of ECPA. 10/ The Village is hereby put on notice that its failure to comply with the terms and conditions of this license or any provision of Part I of the FPA will subject it to any enforcement or penalty action the Commission may elect to take pursuant to the provisions of Section 31.

9. The actions of the applicant related to the project which affect the public (Section 15(a)(3)(B))

As indicated in the previous portion of this order, the Village has been dilatory in taking actions related to safety and recreational use of the project area by the public. However, Article 501 and the recreational facilities to be installed pursuant to Article 405 should ensure compliance with all safety requirements and improve recreational usage at the project site.

Water Quality Certification

The Village applied for water quality certification pursuant to Section 401(a)(1) of the Clean Water Act, 33 U.S.C. § 1341(a)(1), from the State of Wisconsin on April 28, 1986. By letter dated May 28, 1986, WDNR waived certification.

Project Safety and Adequacy

In an inspection report dated August 14, 1986, the Director of the Commission's Chicago Regional Office concluded that the project dam has a significant hazard potential due to the presence of one residence 200 feet downstream of the left abutment. The Regional Director reported that the project

10/ Issuance of a license does not preclude the Commission from taking action under Section 31 for any violations occurring after October 16, 1986, and before issuance of such license.

facilities appear to be structurally sound with no significant problems visible.

The project will be safe if operated and maintained in accordance with the requirements of this license and Part 12 of the Commission's regulations. Analysis of dam safety and related issues is provided in the Safety and Design Assessment attached to this order.

License Term

Section 5 of ECPA added a new subsection (e) to Section 15 of the FPA, specifying that relicenses shall be for a term which the Commission determines to be in the public interest, but not less than 30 years, nor more than 50 years. This new provision is consistent with pre-ECPA Commission policy, which set 30-year license terms for those projects that proposed no new construction or capacity, 40-year terms for those projects that proposed a moderate amount of new development, and 50-year terms for those projects that proposed a substantial amount of new development. ^{11/} Since the Village proposes no new construction or capacity, the term of this license will be 30 years.

Summary of Findings

The EA issued for this project and attached to this order contains background information, analysis of impacts, support for related license articles, and the basis for a finding of no significant impact on the environment. Issuance of this license is not a major federal action significantly affecting the quality of the human environment.

Based upon our review of the agency and public comments filed in this proceeding, and our independent analysis as discussed herein, we conclude that the Upper Red Lake Dam Project No. 2484 would not conflict with any planned or authorized development and would be best adapted to the comprehensive development of the Red River Basin for beneficial public uses.

The Commission orders:

(A) This license is issued to the Village of Gresham, Wisconsin (licensee), for a period of 30 years, effective the first day of the month in which this order is issued, to operate and maintain the Upper Red Lake Dam Project No. 2484. This license is subject to the terms and conditions of the Federal Power Act (FPA), which is incorporated by reference as part of this license, and subject to the regulations the Commission issues under the provisions of the FPA.

^{11/} See Montana Power Company, 56 F.P.C. 2008 (1976).

(B) The project consists of:

(1) All lands, to the extent of the licensee's interests in those lands, enclosed by the project boundary shown by Exhibit G:

Exhibit G

FERC No. 2484-5

Showing Project Map

(2) Project works consisting of: (a) an approximately 231-foot-long concrete dam; (b) a reservoir with a surface area of 215 acres and a storage capacity of 1,300 acre-feet; (c) a 650-foot-long steel penstock with a six-foot diameter from the dam to the surge tank, a five-foot-diameter by 45-foot-long steel penstock from the surge tank to the powerhouse and a four-foot-diameter by 60-foot-long steel penstock from the surge tank to the powerhouse; (d) a powerhouse containing two generating units rated at 159-kW and 264-kW, respectively; (e) the 2.4-kV generator leads; and (f) appurtenant facilities.

The project works generally described above are more specifically shown and described by those portions of Exhibits A and F recommended for approval in the attached Safety and Design Assessment.

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

(C) The Exhibit G described above and those sections of Exhibits A and F recommended for approval in the attached Safety and Design Assessment 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:

4(b), except the second sentence; 4(e), insofar as it relates to approval of plans by the Chief of Engineers and the Secretary of the Army; 6, insofar as it relates to the acceptance and expression in the license of terms and conditions of the FPA that are waived here; 10(c), insofar as it relates to depreciation reserves; 10(d); 10(f); 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 United States." The license is also subject to the following additional articles:

Article 201. The licensee shall pay the United States the following 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, a reasonable amount, as determined in accordance with the provisions of the Commission's regulations in effect from time to time. The authorized installed capacity for that purpose is 560 horsepower.

Article 401. The licensee shall operate the Upper Red Lake Dam Project in an instantaneous run-of-river mode for the protection of fish and wildlife resources in the Red River and the wetland habitat surrounding Upper Red Lake. The licensee, in operating the project in an instantaneous run-of-river mode, shall at all times act to minimize the fluctuation of the reservoir water surface elevation and shall maintain the reservoir water surface elevation between 102 and 103 feet above mean sea level, i.e., maintain discharge from the project so that flow in the Red River, as measured immediately downstream of the project tailrace, approximates the instantaneous sum of inflow. The run-of-river operation may be temporarily modified if required by operating emergencies beyond the control of the licensee and for short periods upon mutual agreement between the licensee and the U.S. Fish and Wildlife Service and the Wisconsin Department of Natural Resources.

Article 402. The licensee, in cooperation with the Wisconsin Department of Natural Resources and the U.S. Geological Survey, shall develop a plan to monitor the water surface elevation of Upper Red Lake. The plan shall include the location and design of gages and monitoring equipment, a schedule for installing the gages or equipment, the method of data collection, and a provision for providing the data to the agencies. The Commission reserves the right to require changes to the plan. The plan shall be filed with the Commission for approval within six months from the date of issuance of this license and shall include comments from the consulted agencies on the plan.

Article 403. The licensee, before starting any land-clearing or land-disturbing activities within the project boundaries, before raising the water level behind the project dam, and before removing or significantly altering existing structures at the project, shall consult with the State Historic Preservation Officer (SHPO). If the licensee discovers previously unidentified archeological or historic properties during the course of constructing or developing project works or other facilities at the project, the licensee shall stop all land-clearing and land-disturbing activities in the vicinity of the properties and consult with the SHPO. In either instance, the licensee shall file with the Commission a cultural resource

management plan prepared by a qualified cultural resource specialist after having consulted with the SHPO.

The management plan shall include: (1) a description of each discovered property indicating whether it is listed on or eligible to be listed on the National Register of Historic Places; (2) a description of the potential effect on each discovered property; (3) proposed measures for avoiding or mitigating effects; (4) documentation of the nature and extent of consultation; and (5) a schedule for mitigating effects and conducting additional studies. The Commission may require changes to the plan.

The licensee shall not begin land-clearing or land-disturbing activities, other than those specifically authorized in this license, or resume such activities in the vicinity of an archeological or historic property discovered during construction, until informed that the requirements of this article have been fulfilled.

Article 404. The licensee, within two years of the date of issuance of this license, shall file for Commission approval a report documenting the results of a cultural resources survey (report) that is designed to determine the eligibility for the National Register of Historic Places of the existing Upper Red Lake Dam Project powerhouse and dam, and that is based on the results of consultations with the Wisconsin State Historic Preservation Officer (SHPO) and with the Historic American Engineering Record (HAER) of the U.S. Department of the Interior.

The licensee, in the report, shall describe--using drawings, photographs, and a narrative summary--those characteristics of the dam and powerhouse that make the dam and powerhouse eligible for the National Register of Historic Places, or explain why the dam and powerhouse should not be considered eligible for the National Register.

The licensee shall: prepare the report after consultation with the SHPO and the HAER; submit the report to the SHPO and the HAER, before filing it with the Commission, with the request that the SHPO and the HAER either agree with the licensee's determination of the dam's and the powerhouse's eligibility or that the SHPO and the HAER explain the reasons for disagreeing; incorporate in the report the SHPO's and the HAER's recommendations concerning the report, or explain in detail the reasons the recommendations should not be incorporated; and include the SHPO's and the HAER's comments with the report, or copies of letters indicating that the licensee has attempted to consult concerning the report. The Commission reserves the right to require changes to the report.

Article 405. The licensee, after consultation with the Town of Red Springs, the Wisconsin Department of Natural Resources, and the U.S. Fish and Wildlife Service, and within six months from the date of issuance of the license, shall file with the Commission for approval a final plan and design drawings for the upgrading of recreational facilities at the Town of Red Springs site, as described by the North Shore development concept, and at the Village of Gresham site, as described by the South Shore-B development concept, filed with the Commission on December 19, 1986. This plan shall also include a construction schedule, an estimate of the costs of construction, operation, and maintenance of recreational facilities at each site, a statement of which parties will be responsible for the maintenance and operation of recreational facilities at each site, and any agency comments on the final plan. The Commission reserves the right to require changes to the plan.

Article 406. (a) In accordance with the provisions of this article, the licensee shall have the authority to grant permission for certain types of use and occupancy of project lands and waters and to convey certain interests in project lands and waters for certain types of use and occupancy, without prior Commission approval. The licensee may exercise the authority only if the proposed use and occupancy is consistent with the purposes of protecting and enhancing the scenic, recreational, and other environmental values of the project. For those purposes, the licensee shall also have continuing responsibility to supervise and control the use and occupancies for which it grants permission, and to monitor the use of, and ensure compliance with the covenants of the instrument of conveyance for, any interests that it has conveyed, under this article. If a permitted use and occupancy violates any condition of this article or any other condition imposed by the licensee for protection and enhancement of the project's scenic, recreational, or other environmental values, or if a covenant of a conveyance made under the authority of this article is violated, the licensee shall take any lawful action necessary to correct the violation. For a permitted use or occupancy, that action includes, if necessary, cancelling 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; and (3) embankments, bulkheads, retaining walls, or similar structures for erosion control to protect the existing shoreline. 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 and roads for which all necessary state and federal approvals have been obtained; (2) storm drains and water mains; (3) sewers that do not discharge into project waters; (4) minor access roads; (5) telephone, gas, and electric utility distribution lines; (6) non-project overhead electric transmission lines that do not require erection of support structures within the project boundary; (7) submarine, overhead, or underground major telephone distribution cables or major electric distribution lines (69-kV or less); and (8) water intake or pumping facilities that do not extract more than one million gallons per day from a project reservoir. No later than January 31 of each year, the licensee shall file three copies of a report briefly describing for each conveyance made under this paragraph (c) during the prior calendar year, the type of interest conveyed, the location of the lands subject to the conveyance, and the nature of the use for which the interest was conveyed.

(d) The licensee may convey fee title to, easements or rights-of-way across, or leases of project lands for: (1) construction of new bridges or roads for which all necessary state and federal approvals have been obtained; (2) sewer or effluent lines that discharge into project waters, for which all necessary federal and state water quality certification or permits have been obtained; (3) other pipelines that cross project lands or waters but do not discharge into project waters; (4) non-project overhead electric transmission lines that require erection of support structures within the project boundary, for

which all necessary federal and state approvals have been obtained; (5) private or public marinas that can accommodate no more than 10 watercraft at a time and are located at least one-half mile 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 the edge of the project reservoir at normal maximum 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 45 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.

(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 covenants running with the land adequate to ensure that: (i) the use of the lands conveyed shall not endanger health, create a nuisance, or otherwise be incompatible with overall project recreational use; and (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.

(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 501. The licensee, within four months of issuance of this license, shall file a Hydropower Compliance Management Program (HCMP) for Commission approval. The HCMP shall include the following elements for each license requirement:

(1) The identification of, and schedule for, each action necessary to complete the license requirement;

(2) A schedule for the start and completion of the consultation process with each resource agency required to be consulted for each action necessary to complete the license requirement;

(3) The identification of specific individuals in each agency that need to be consulted on each action necessary to complete the license requirement;

(4) A reporting plan to be filed with the Commission on a quarterly basis, starting eight months after issuance of this license, that demonstrates the progress made by the licensee under the schedules presented in elements (1) and (2) above, to complete the license requirements; and

(5) A monitoring report, to be filed on an annual basis, starting one year after the issuance of this license, documenting

the compliance of the licensee with all requirements of the license that do not require specific filings with the Commission.

Four copies of all requirements under this article must be filed with the Secretary of the Commission, with a copy filed with any agency consulted under element (2) above.

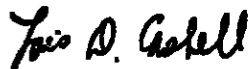
The Commission reserves the right to require the licensee to make modifications to the HCMP and to take other measures necessary to ensure compliance by the licensee with the terms and conditions of the license and Part I of the FPA.

(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 that filing. Proof of service on these entities must accompany the filing with the Commission.

(G) This order is final unless a request for rehearing is filed within 30 days from the date of its issuance, as provided in Section 313(a) of the FPA. 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 request rehearing of this order shall constitute acceptance of this license.

By the Commission.

(S E A L)



Lois D. Cashell,
Secretary.

**SAFETY AND DESIGN ASSESSMENT
UPPER RED LAKE DAM
FERC No. 2484-001, Wisconsin**

DAM SAFETY

The existing Upper Red Lake Dam is a concrete and masonry dam about 316 feet long, including two cutoff walls 8 and 20 feet high, impounding about 1,300 acre-feet of water. The Director of the Commission's Chicago Regional Office (CRO), in an inspection report dated August 14, 1986, concluded that the dam has a significant hazard potential. This rating is due to the presence of one residence 200 feet downstream of the left abutment. The Regional Director reported that the project facilities appear to be structurally sound with no significant problems visible. The report maintains, however, that in case of dam failure, the house would be damaged, but there would not be any hazardous flows or backwater conditions that would endanger residents on the first floor of the house. The Emergency Action Plan (EAP) calls for contacting the residents immediately in case of any emergency. There are no other developments downstream besides the one residence. In addition, the staff analysis shows that the dam would be safe under all credible loading conditions.

WATER RESOURCE PLANNING

The project operates in a run-of-river mode. The powerhouse contains two units with installed capacities of 159 kilowatts (kW) and 264 kW, and with hydraulic capacities of 62.8 cubic feet per second (cfs) and 104 cfs, respectively. The units operate under a design head of 35 feet. The estimated average annual flow of the Red River is 125 cfs.

The project generates about 2.15 gigawatthours annually, which is utilized by the Village of Gresham Utility (VOG).

Section 10(a)(2) of the Act requires the Commission to consider the extent to which a project is consistent with federal or state comprehensive plans (where they exist) for improving, developing, or conserving a waterway or waterways affected by the project. The Commission provided an interpretation of comprehensive plans under section 10(a)(2) that is revised by the Order Granting Rehearing, issued April 27, 1988.

The Red River Basin Planning Status Report and the State Plans include no projects, either proposed or constructed that would interfere with the development of the hydropower potential of the site.

Based on a review of the agency and public comments filed in this proceeding and on the staff's independent analysis, the Upper Red Lake Dam Project is best adapted to a comprehensive plan for the Red River.

EXHIBITS

Exhibit A and the following exhibit F drawings conform to the Commission's rules and regulations and are included in the license.

<u>Exhibit F</u>	<u>FERC Drawing No. 2484</u>	<u>Showing</u>
1	1	Dam structure plan and detail
2	2	Profile of project works and spillway gate details
3	3	Surge tank and penstock details
4	4	Plan and section view

ECPA FINDINGS

Section 10(a)(2)(C) and section 15(a) of the Act, as amended by the Electric Consumers Protection Act (ECPA) of 1986, requires the Commission to consider in writing the following factors in issuing a new license.

Consumption Efficiency Improvement Program [Section 10(a)(2)(C)]

By letter dated December 12, 1986, the VOGU submitted to the Commission a supplemental filing containing general and specific data on the physical features, a composition of its service area, and a description of programs existing or under consideration. The applicant (via telephone), stated that some conservation practices are employed, principally by brochures obtained from Wisconsin Power and Light Company (WPL) and via other media.

The VOGU's energy policy requires constant monitoring and planned improvement (where possible or applicable) of the project energy or losses through its maintenance programs, as well as the development of energy management programs, including energy conservation for its customers. The VOGU's small operation does not generate sufficient revenues to justify a formal, cost-effective energy conservation program. VOGU's conservation effort consists primarily of disseminating information regarding the benefits derived from employing good energy management practices.

The staff contacted the Wisconsin Public Service Commission (WPSC) to verify if the VOGU's ongoing consumption efficiency improvement program(s) conform to the WPSC recommendations. Based on the staff review of the foregoing and the related response from the WPSC, the staff concludes that VOGU has made, and continues to make, a successful effort to promote cost-effective energy conservation and to educate end-use customers about rewards from conservation practices.

Federal Power Act [Section 15(a)]

Section 4 of the ECPA amended Section 15 of the Act to specify a number of factors the Commission must consider in acting on applications for new license following the expiration of existing licenses.

The plans and abilities of the applicant to comply with the articles, terms, and conditions of any license issued to it and other applicable provisions of Part I of the Act
[Section 15(a)(2)(A)]

The applicant states that since obtaining the existing license, operation of the project complies with the terms and conditions of the existing license.

The staff has reviewed the plans and abilities of the applicant to comply with the articles, terms, and conditions of the license. The VOGU's record shows that the licensee's compliance with article 1 through 12 has been satisfactory, but that the licensee did not comply with the requirements of article 13 and 15 by the time specified for compliance, even though the Secretary and the Regional Engineer corresponded several times with the licensee regarding compliance.

Article 13 required the licensee to submit for Commission approval an exhibit K and an exhibit R within 1 year of the issuance date of the license or by January 16, 1975. The exhibits were filed on May 18, 1976, about 16 months late. By letter dated May 8, 1978, the Commission requested the licensee to supplement an exhibit R within 30 days. The supplemental information was filed on June 13, 1978.

Article 14 required the licensee to replace the spillway stoplogs with lift gates and appropriate hoisting devices within 1 year of the issuance date of the license. The gates were installed on December 10, 1980, more than 5 years late.

Article 15 required the licensee to file revised exhibit L drawings for the project before initiating construction. The only construction requirement in the license was the replacement of the spillway stoplogs. To meet the requirement of this article, the licensee should have submitted the exhibit no later than January 15, 1975. The exhibit L drawing was submitted by letter dated April 19, 1976.

The licensee did not comply with Part 8 until requested to do so following an inspection. It complied satisfactorily within a reasonable time.

Five Form 80 reports have been required for this project and all of them were received. Some of the Form 80 reports were overdue for a considerable period of time, and they were not received until after several phone calls were made and non-compliance letters sent. The latest report was filed by the due date.

The licensee was requested to improve a boat landing and provide a canoe portage at the project. The licensee subsequently established that the portage was not needed. Improvements were made to the boat landing. Thus, the final responses were satisfactory.

The licensee's compliance with Part 12, subparts A and B of the regulations, has been satisfactory.

The licensee has filed an EAP for the project pursuant to Part 12, subpart C of the regulations. The plan was accepted by the CRO in a letter dated November 4, 1982. However, in the succeeding years, the licensee did not file the annual update of the EAP nor did conduct annual tests of the EAP, as required by the Commission's regulations. In each of these years, the staff furnished the licensee with at least one reminder letter before the licensee complied with the above requirements.

The licensee is not required to submit consultant safety inspection reports for this project pursuant to Part 12, subpart D of the regulation.

Part 12, subpart E of the regulations, required the licensee to provide safety devices to protect the public in the use of project lands and water. It was in 1977 that the licensee first recognized the need to install public safety feature items at the project. The licensee, however, has not completed installation of all the safety feature items. Work which was completed was accomplished on a piecemeal basis. In a delinquency letter dated September 15, 1987, the licensee was cited for failing to respond to a previous letter requiring to submit a plan and schedule for installation of a boat restraining barrier upstream of the sluice gate section of the dam.

The staff review of the compliance record of the VOGU substantiates that the VOGU has basically complied with the articles, terms, and conditions of its existing license. The VOGU will be able to comply with the terms and conditions of the new license and other provisions of Part I of the Act, however, if the VOGU will continue not to comply with the requirements of articles on time, and would not submit the required plan and schedule for installation of a boat restraining barrier upstream of the sluice gate section of the dam, steps should be made to terminate the license.

The plans of the applicant to manage, operate and maintain the project safety [Section 15(a)(2)(B)]

The applicant states that it is operating the generating facilities safely, and its records indicate that there has never been any injury or any lost time due to an accident to an employee or the public. The project is operated in coordination with the applicant's downstream Weed Dam facility on a run-of-river basis, which causes no extreme fluctuations, thus eliminating any hazard to the fisherman and boaters.

The applicant has prepared an EAP with a notification procedure to the public in case of a potential threat to downstream life or property.

To ensure public safety downstream of the dam during all conditions, the Commission's Division of Inspection, by a letter dated September 10, 1986, directed the applicant to inspect the dam daily to identify any adverse conditions. Furthermore, by letter dated September 15, 1988, the applicant was reminded about the requirement to install a boat restraining barrier upstream of the sluice gate section of the dam.

The staff has reviewed the plans of the applicant to manage, operate, and maintain the project safely. Based upon review of the specific information provided by the applicant on various aspects of the project that affect public safety, a review of the project records, and the inspection reports by the Commission's Regional Engineers, the staff concludes that the applicant's plans are adequate. In addition, the staff analysis shows that the dam would be safe under credible loading conditions.

The plans and abilities of the applicant to operate and maintain the project in a manner most likely to provide efficient and reliable electric service [Section 15(a)(2)(C)]

The applicant states that it would continue to operate and maintain the project as before, and that it has no current contracts which affect the manner in which the project is operated. There has been no lost generation at the facilities over the last 5 years due to unscheduled outages.

The applicant states that there are no plans to increase generation at the facility since the existing turbines harness most of the available water power. Operation of the project is easily coordinated with the applicant's downstream facility (Weed Dam), and with the applicant's electrical system. In addition, the applicant continues to improve the efficiency of its electrical system, such as replacing old transmission facilities.

The staff has reviewed the plans and abilities of the applicant to operate and maintain the project in a manner most likely to provide efficient and reliable electric service.

Based on the above information and the Regional Director's operation inspection reports, the staff concurs with the applicant that the project is being operated and maintained in an efficient and reliable manner.

The need of the applicant over the short and long term for the electricity generated by the project to serve its customers [Section 15(a)(2)(D)]

The project is part of the VOGU's electric generating resource base and is currently used to meet part of the utility system load requirements. The project is an inexpensive renewable source of energy that does and would continue to provide benefits through the displacement of the more expensive and less environmentally acceptable thermal generation.

The applicant and its end-use customers would experience significant increases in their electric bills if the 2,150 megawatthours (MWh) of relatively inexpensive power is lost. The cost of the project has been amortized during the original license period. Its fuel costs are zero and its operation and maintenance costs are minimal. Therefore, its cost effectiveness has little, if any, competition.

WPL states that the equivalent and lowest cost replacement power rates would be approximately 43.8 mills per kilowatthours (mills/KWh). The project has an average annual generation of 2,150 MWh at a total unit production cost of 20 mills/KWh. The total annual cost of this energy was \$43,325. If the VOGU had to purchase this amount of energy at the rate of 43.8 mills/KWh, the cost would be \$94,170, and VOGU's 848 end-use customers would have to pay an additional \$50,845 per year. If, for simplicity, the staff assumes that this additional energy was used equally by the 848 end-use customers, each customer would pay, on the average, an additional \$59.96 for electricity annually.

The applicants existing and planned transmission services [Section 15(a)(2)(E)]

If the VOGU is issued a new license, no changes or modifications of the existing transmission system, its operation, or load characteristics would occur.

Review of the license application and VOGU's supplemental filing of December 12, 1986, indicated that VOGU's existing project transmission service should not change if a new license is not granted. No transmission reconfiguration or upgrading of transmission facilities would be required, and losses would be very minimally increased due to the import of the small increment of replacement power from WPL.

Whether the plans of the applicant will be achieved, to the greatest extent possible, in a cost effective manner [Section 15(a)(2)(F)]

The VOGU does not propose any new development and does not plan to increase capacity. With the hydraulic capacity of 166.8 cfs, the run-of-river project adequately utilizes the flows of the Red River.

There are no projects, proposed or constructed, on the Red River that this project would impact. Neither state nor federal agencies addressed flood control, navigation, water supply or irrigation requirements in the basin.

As to the total project, the recreation resources conform with the Commission's policy on recreation and adequately meet the needs of the area.

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**ENVIRONMENTAL ASSESSMENT
FOR HYDROPOWER LICENSE**

Upper Red Lake Dam

FERC No. 2484 - 001

Wisconsin

**Federal Energy Regulatory Commission
Office of Hydropower Licensing
Division of Environmental Analysis
825 N. Capitol Street, NE
Washington, D.C. 20426**

February 26, 1988

TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
A. APPLICATION	1
B. PURPOSE AND NEED FOR ACTION	1
C. PROPOSED PROJECT AND ALTERNATIVES	2
D. CONSULTATION AND COMPLIANCE	3
E. COMMENTS	4
F. AFFECTED ENVIRONMENT	5
G. ENVIRONMENTAL ISSUES AND PROPOSED RESOLUTIONS	6
H. ENVIRONMENTAL IMPACTS	9
I. UNAVOIDABLE ADVERSE ENVIRONMENTAL IMPACTS OF THE RECOMMENDED ALTERNATIVE	10
J. CONCLUSION	10
K. LITERATURE CITED	10
L. LIST OF PREPARERS	10

ENVIRONMENTAL ASSESSMENT

**FEDERAL ENERGY REGULATORY COMMISSION
OFFICE OF HYDROPOWER LICENSING, DIVISION OF ENVIRONMENTAL ANALYSIS**

Date: February 26, 1988

Project name: Upper Red Lake Dam FERC No. 2484-001

A. APPLICATION

1. Application type: New License - Minor Date filed: 8/ 4/86
2. Applicant: Village of Gresham
3. Water body: Red River River basin: Wolf River
4. Nearest city or town: Gresham
5. County: Shawano State: Wisconsin

B. PURPOSE AND NEED FOR ACTION

1. Purpose.

The proposed project would continue providing an average power generation of 2,150,000 kilowatthours (kWh) to the applicant, the Village of Gresham (VOG).

2. Need for power.

The Village of Gresham (VOG), under FERC license (issued 1-16-74, effective 1-1-38), operated the Upper Red Lake Dam Project for the past 50 years. The VOG has applied for a new license to authorize continued operation of the project.

Because of the small size of the project in relation to the VOG's load and the generation capability of the major utility (Wisconsin Power and Light Company-WPL) that serves the VOG's firm power requirements, the traditional approach of forecasting a specific project need is inapplicable.

The VOG's need for the project power has been established by the history of the project operation. The capacity and energy produced by the project are used in the VOG's system to serve connected customer loads. The VOG has no plans to increase or decrease the capacity or energy outputs of the project. Use of the hydroelectric energy from this project to displace higher cost fossil-fueled thermal generation would conserve nonrenewable fossil-fuels, reduce the emission of noxious byproducts caused by the combustion of fossil fuels, and lower the VOG's and its end-use customers overall energy cost.

C. PROPOSED PROJECT AND ALTERNATIVES**1. Description of the proposed action:**

The applicant proposes to obtain a new license for an existing facility with an installed capacity of 423 kilowatts (kW). Existing project features include: (1) a 231-foot-long and 20-foot-high dam; (2) three spillway gates; (3) one 650-foot-long penstock from the dam to the surge tanks; (4) one 45-foot-long penstock and one 60-foot-long penstock from the surge tanks to the powerhouse; and (5) a powerhouse equipped with a 159-kW turbine and a 264-kW turbine. There are no proposed changes in the reservoir water surface elevation or to the run-of-river mode of operation.

2. Applicant's proposed mitigative measures.

a. Construction. None.

b. Operation:

The VOG does not propose to change project operation; therefore, the applicant does not propose any mitigative measures.

3. Federal lands affected.

☒ No. ☐ Yes; agency: _____; acreage = _____;

☐ The federal land management agency has provided conditions by letter dated: ____/____/____ (attachment ____).

☐ Conditions have not been provided.

Remarks:

4. Alternatives to the proposed project.

a. ☐ No reasonable action alternatives have been found.

☒ Action alternative:

b. Alternative of no action.

No action, denial of a license, would preclude the VOG from continuing to operate the project. No action would preclude the VOG from producing electrical power at the site.

D. CONSULTATION AND COMPLIANCE

1. Fish and wildlife consultation (Fish & Wildlife Coordination Act).

- a. U.S. Fish & Wildlife Service (FWS): X Yes. No.
 b. State(s): X Yes. No.
 c. National Marine Fisheries Service (NMFS): X Yes. No.

2. Section 7 consultation (Endangered Species Act).

- a. Listed species: X None. Present:

- b. Consultation: X Not required. Required; completed: / / .

Remarks: By letter dated December 22, 1986, the Department of the Interior (Interior) stated that there are no federally listed threatened or endangered species in the project area.

3. Section 401 certification (Clean Water Act).

 Not required.

X Required; the applicant requested § 401 certification on 4/28/86.

Status : Granted by the certifying agency on / / .

X Waived by the certifying agency on 5/28/86.

 Waived; section 401 certification is waived if not acted upon by the certifying agency within 1 year from the date of the certifying agency's receipt of the request (See Commission order no. 464, issued February 11, 1987).

 Undetermined; 1 year has not yet elapsed since the applicant's request and the state agency has not yet acted on the request.

The 1-year period would expire on / / .

Remarks:

4. Cultural resource consultation (Historic Preservation Act).

- a. State Historic Preservation Officer (SHPO): X Yes. No.
 b. National Park Service (NPS): X Yes. No.
 c. National Register status: X None. Eligible or listed.
 d. Council: X Not required. Completed: / / .
 e. Further consultation: X Not required. Required.

Remarks: The existing dam was constructed in 1880, but has been altered

somewhat by rehabilitation. No determination of eligibility has been made on the dam or the power station.

5. Recreational consultation (Federal Power Act).

a. U.S. Owners: ☐ Yes. ☒ No.
 b. WPS: ☒ Yes. ☐ No.
 c. State(s): ☒ Yes. ☐ No.

6. Wild and scenic rivers (Wild and Scenic Rivers Act).

Status: ☒ None. ☐ Listed. Determination completed: / / .
 Administering agency: _____

7. LWCF lands and facilities (Land and Water Conservation Fund Act).

Status: ☒ None. ☐ Designated. Determination completed: / / .
 Administering agency: _____

Remarks: Gresham Village Park, LWCF Development project 55-01649 located in the project area, would not be affected (letter from Ms. Paulette Harder, Director, Office of Intergovernmental Programs, Wisconsin Department of Natural Resources, September 8, 1987).

E. COMMENTS

1. The following agencies and entities provided comments on the application or filed a motion to intervene in response to the public notice dated 10/27/86.

<u>Commenting agencies and other entities</u>	<u>Date of letter</u>
Department of the Interior	12/22/86
Wisconsin Department of Natural Resources	12/ 8/86
	/ /
	/ /
	/ /
	/ /

<u>Motions to intervene</u>	<u>Date of motion</u>
	/ /
	/ /
	/ /
	/ /

2. ☒ The applicant responded to the comments or motion(s) to intervene by letter(s) dated 10/21/87.

☐ The applicant did not respond to the comments or motion(s) to intervene.

F. AFFECTED ENVIRONMENT

1. General description of the locale.

The project area consists of rural pastureland with hardwood forest interspersed along the shoreline.

2. Descriptions of the resources in the project impact area (Source: Village of Gresham, 1986, application, Exhibit E, unless otherwise indicated).

a. Geology and soils: The soils of the project area consist of bottomland alluvial deposits.

b. Streamflow:

low flow: 79 cfs; flow parameter: Lowest recorded flow.
 high flow: 1,865 cfs; flow parameter: A 1 in 10 year flood event.
 average flow: 160 cfs.

c. Water quality: The water quality of the Red River and Upper Red Lake is good and is capable of supporting a brown trout fishery. The water has an alkaline pH. The Wisconsin Department of Natural Resources classifies the water in the Red River and Upper Red Lake as suitable for fish and aquatic life and for contact recreation. The dissolved oxygen criteria for water in this category is a minimum of 5 milligrams per liter.

d. Fisheries:

Anadromous: ☒ Absent. ☐ Present.

Resident: ☐ Absent. ☒ Present. Fishes present in Upper Red Lake include northern pike, largemouth and smallmouth bass, yellow perch, bluegill, black crappie, and black bullhead.

e. Vegetation:

<u>Cover type</u>	<u>Dominant species</u>
forest	sugar and red maple, red oak and white pine.
herbaceous wetland	pond weed, elodea, water milfoil, and cattail

About 15 acres of wetland habitat is located next to Upper Red Lake.

f. Wildlife: The project impoundment provides habitat for breeding mallards, blue-winged teal, wood ducks, and other migrating waterfowl. Muskrat, mink,

striped skunk, raccoon, red fox, cottontail rabbit, and white-tailed deer inhabit the shoreline.

g. Cultural:

X National Register (listed and eligible) properties have not been recorded.

___ There are properties listed on, or eligible for listing on, the National Register of Historic Places in the area of the projects potential environmental impact.

Remarks: The Wisconsin State Historic Preservation Officer (SHPO) states that, although the existing project dam and powerhouse have not been evaluated for National Register eligibility, as long as the water level behind the dam is not raised, no ground-disturbing activities are undertaken, and no structures are removed or significantly altered, National Register and eligible properties would not be impacted (letter from Richard W. Dexter, Chief, Compliance and Archeology Section, The State Historical Society of Wisconsin, dated May 15, 1986).

h. Visual quality: The rural setting of the lake, woods, and pastureland dominates the scenery.

i. Recreation: Upper Red Lake is used for fishing, boating, and swimming. Existing recreation facilities include two unimproved boat access sites and a swimming beach.

j. Land use: The surrounding land is mostly cleared for agriculture and pasture uses with some land remaining as woodland.

k. Socioeconomic: The economy of the project area is dominated by agriculture.

G. ENVIRONMENTAL ISSUES AND PROPOSED RESOLUTIONS

Mitigative measures recommended by the staff are in addition to those proposed by the applicant, section C(2), and any conditions identified in section C(3). There are 4 issues addressed below.

1. Reservoir Levels: Upper Red Lake, the project reservoir, is bordered by approximately 15 acres of wetlands, which are valuable to many species of fish and wildlife. The water surface elevation of Upper Red Lake is currently maintained between 102 feet and 103 feet above sea level. The VOG does not propose any changes to lake levels or to the run-of-river mode of operation.

The Wisconsin Department of Natural Resources (WDNR) recommends that the VOG maintain the current water surface elevation of Upper Red Lake during operation of the project. The Interior recommends that the VOG operate the project in a run-of-river mode. (Flow in the river below the project would equal the instantaneous inflow to the project reservoir). Any prolonged changes in the water surface elevation of Upper Red Lake could adversely affect the valuable wetland habitat associated with the lake. The maintenance of the proposed water surface elevation is necessary to ensure that the fish and

wildlife values of the existing wetlands of Upper Red Lake are preserved. Therefore, the VOG should operate the project in a run-of-river mode and, in operating in this manner, should maintain the water surface elevation of the lake between 102 and 103 feet above sea level.

The WDNR also recommends that the VOG maintain a daily log of lake levels. The VOG disagrees with WDNR's recommendation to install recording gages because of the cost. Such a measure is necessary to ensure compliance with the recommended lake levels. Therefore, the licensee should develop a plan to record the water surface elevation of the lake and to submit the records annually to the WDNR.

2. Impact potential on National Register and eligible properties of altering the design or the location of the project: A cultural resources survey of the proposed project area has been conducted. The results of this cultural resources survey, and the SHPO's comments concerning the impact potential of the project, are based on the project design, the method of construction and operation, and the project location, as described in the application for license and in any subsequent filings by the VOG. The SHPO has stated, as long as the water level behind the dam is not raised, no ground-disturbing activities are undertaken, and no existing structures are removed or significantly altered, the proposed project would not affect any properties that are either listed on or eligible for listing on the National Register of Historic Places. Changes to a project, especially to the design, sometimes are found to be necessary after a license has been issued, and may involve an application for an amendment of the license. Such changes invalidate all cultural resource determinations concerning the project. Therefore, before implementing any changes to the project that would involve land-clearing or land-disturbing activities within the project area, raising the water level behind the dam, or removing or significantly altering existing structures, whether or not the needed change requires an amendment of the license, the licensee should take these actions: consult with the SHPO; based on consultations with the SHPO, prepare a plan describing the appropriate course of action and a schedule for carrying it out; file the plan with the Commission; and take no further actions that potentially could impact National Register or eligible properties until notified by the Commission that all of these requirements have been satisfied.

3. Eligibility for the National Register of the existing project dam and powerhouse: The SHPO states that the existing project dam and powerhouse have not been evaluated for National Register eligibility (letter from Richard W. Dexter, May 15, 1986). The staff concludes that, if the dam and powerhouse are eligible, these properties would be subject to an adverse impact potential resulting from accidents that may occur during project operation. If the dam and powerhouse contain specific characteristics that are historically significant, these characteristics should be recorded in the event that the structures themselves become unavailable for direct observation. Therefore, the licensee should consult with the SHPO, and with the Historic American Engineering Record (HAER) of the Department of the Interior; determine whether the dam and powerhouse are eligible; and document the specific characteristics of the dam and powerhouse that make them eligible. The data should be filed for Commission approval.

4. Recreational access: The WDNR and the U.S. Fish and Wildlife Service (FWS) recommend the upgrading of two existing boat access sites. Specifically, the

FWS suggests, by letter dated July 16, 1986, development of all-weather parking, boat ramps, and sanitary facilities. In response, the VOG submitted a conceptual plan for the development of parking, boat ramps, sanitary facilities, fishing piers, boat launch piers, and picnic facilities for the two sites. The WDNR and the FWS approved the plan.

The VOG since has indicated in a letter dated October 15, 1987, that due to funding considerations, the original development plan would be limited to the upgrading of boat ramps and construction of a fishing pier and a boat launch pier. There have been no agency comments on this change.

The VOG provided no additional reasons for a change in the previously agreed upon proposal for recreational development at the project. Based on the record, the staff believes that the proposal reviewed by the agencies would best provide for public use. Therefore, in order to ensure that recreational needs are met, the licensee should file with the Commission a finalized plan, including design drawings, for the upgrading of the two existing boat access sites as detailed in the original plan approved by the WDNR and the FWS and filed with the Commission on December 19, 1986. This development should include, at both access sites, mesh panel boat ramps, boat launch piers, fishing piers, parking for cars and car-trailers, sanitary facilities, and picnic facilities. However, should the licensee upon further consultation with the WDNR and the FWS determine that alternative measures would better provide for public use at the project, the licensee may file for approval an amendment to its plan for recreational development.

H. ENVIRONMENTAL IMPACTS

1. Assessment of adverse and beneficial impacts expected from the project as proposed by the applicant (P) (section C(2)); the proposed project with the staff's recommended mitigation (Ps) (section G); and any other alternative considered (A) (section C(4)).*

Resource	Impact			Remarks
	P	Ps	A	
a. Geology-Soils	0			1. Construction of boat ramps, piers, and parking, sanitary, and picnic facilities would enhance recreational opportunities in the project area.
b. Streamflow	0			
c. Water quality:				
Temperature	0			
Dissolved oxygen	0			
Turbidity and sedimentation	0			
d. Fisheries:				
Anadromous	0			
Resident	0			
e. Vegetation	0			
f. Wildlife	0			
g. Cultural:				
Archaeological	0			
Historical	0			
h. Visual quality	0			
i. Recreation	1BL	2BL		
j. Land Use	0			
k. Socioeconomic	1BL			

* The assessment reflects the adoption of any terms and conditions set by the fish and wildlife agencies, in addition to the applicant's proposed mitigation. Assessment symbols indicate the following impact levels:

0 = No impact; 1 = Minor impact; 2 = Moderate impact; 3 = Major impact;
A = Adverse; B = Beneficial; L = Long-term impact; S = Short-term impact.

2. Impacts of the no-action alternative.

The alternative to the proposed action is denial of a new license and the end of project operation.

3. Recommended alternative (including proposed, required, and recommended mitigative measures): ☒ Proposed project. ☐ Alternative. ☐ No action.

4. Reason(s) for selecting the preferred alternative.

The proposed project would provide electrical power without significantly affecting the environmental conditions of the project area.

I. UNAVOIDABLE ADVERSE ENVIRONMENTAL IMPACTS OF THE RECOMMENDED ALTERNATIVE

There are no unavoidable adverse impacts associated with continued operation of the project.

J. CONCLUSION

☒ Finding of No Significant Impact. Approval of the recommended alternative [H(3)] would not constitute a major federal action significantly affecting the quality of the human environment; therefore, an environmental impact statement (EIS) will not be prepared.

☐ Intent to Prepare an EIS. Approval of the recommended alternative [H(3)] would constitute a major federal action significantly affecting the quality of the human environment; therefore, an EIS will be prepared.

K. LITERATURE CITED

1. Village of Gresham. 1986. Application for new license for the Upper Red Lake Dam Water Power Project, a minor water project, FERC No. 2484-001, Wisconsin. August 4, 1986.

L. LIST OF PREPARERS

<u>Name</u>	<u>Position title</u>
Robert H. Deibel	Fishery Biologist (Coordinator)
M. Fayyad	Project Engineer
James T. Griffin	Archeologist
Ann E. Mates	Resource Protection Specialist

Alan Mitchnick

Wildlife Biologist

Mary Nowak

Writer-Editor

FEDERAL ENERGY REGULATORY COMMISSION

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

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

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

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

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

Article 5. The Licensee, within five years from the date of issuance of the license, shall acquire title in fee or the right to use in perpetuity all lands, other than lands of the United States, necessary or appropriate for the construction, maintenance, and operation of the project. The Licensee or its successors and assigns shall, during the period of the license, retain the possession of all project property covered by the license as issued or as later amended, including the project area, the project works, and all franchises, easements, water rights, and rights of occupancy and use; and none of such

properties shall be voluntarily sold, leased, transferred, abandoned, or otherwise disposed of without the prior written approval of the Commission, except that the Licensee may lease or otherwise dispose of interests in project lands or property without specific written approval of the Commission pursuant to the then current regulations of the Commission. The provisions of this article are not intended to prevent the abandonment or the retirement from service of structures, equipment, or other project works in connection with replacements thereof when they become obsolete, inadequate, or inefficient for further service due to wear and tear; and mortgage or trust deeds or judicial sales made thereunder, or tax sales, shall not be deemed voluntary transfers within the meaning of this article.

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

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

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

Article 9. The United States specifically retains and safeguards the right to use water in such amount, to be determined by the Secretary of the Army, as may be necessary for the purposes of navigation on the navigable waterway affected; and the operations of the Licensee, so far as they affect the use, storage and discharge from storage of waters affected by the license, shall at all times be controlled by such reasonable rules and regulations as the Secretary of the Army may prescribe in the interest of navigation, and as the Commission may prescribe for the protection of life, health, and property, and in the interest of the fullest practicable conservation and utilization of such waters for power purposes and for other beneficial public uses, including recreational purposes, and the Licensee shall release water from the project reservoir at such rate in cubic feet per second, or such volume in acre-feet per specified period of time, as the Secretary of the Army may prescribe in the interest of navigation, or as the Commission may prescribe for the other purposes hereinbefore mentioned.

Article 10. On the application of any person, association, corporation, Federal agency, State or municipality, the Licensee shall permit such reasonable use of its reservoir or other project properties, including works, lands and water rights, or parts thereof, as may be ordered by the Commission, after notice and opportunity for hearing, in the interests of comprehensive development of the waterway or waterways involved and the conservation and utilization of the water resources of the region for

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

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

Article 12. Whenever the United States shall desire, in connection with the project, to construct fish and wildlife facilities or to improve the existing fish and wildlife facilities at its own expense, the Licensee shall permit the United States or its designated agency to use, free of cost, such of the Licensee's lands and interests in lands, reservoirs, waterways and project works as may be reasonably required to complete such facilities or such improvements thereof. In addition, after notice and opportunity for hearing, the Licensee shall modify the project operation as may be reasonably prescribed by the Commission in order to permit the maintenance and operation of the fish and wildlife facilities constructed or improved by the United States under the provisions of this article. This article shall not be interpreted to place any obligation on the United States to construct or improve fish and wildlife facilities or to relieve the Licensee of any obligation under this license.

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

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

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

Article 16. Material may be dredged or excavated from, or placed as fill in, project lands and/or waters only in the prosecution of work specifically authorized under the license; in the maintenance of the project; or after obtaining Commission approval, as appropriate. Any such material shall be removed and/or deposited in such manner as to reasonably preserve the environmental values of the project and so as not to interfere with traffic on land or water. Dredging and filling in a navigable water of the United States shall also be done to the satisfaction of the District Engineer, Department of the Army, in charge of the locality.

Article 17. If the Licensee shall cause or suffer essential project property to be removed or destroyed or to become unfit for use, without adequate replacement, or shall abandon or discontinue good faith operation of the project or refuse or neglect to comply with the terms of the license and the lawful orders of the Commission mailed to the record address of the Licensee or its agent, the Commission will deem it to be the intent of the Licensee to surrender the license. The Commission, after notice and opportunity for hearing, may require the Licensee to remove any or all structures, equipment and power lines within the project boundary and to take any such other action necessary to restore the project waters, lands, and facilities remaining within the project boundary to a condition satisfactory to the United States agency having jurisdiction over its lands or the Commission's authorized representative, as appropriate, or to provide for the continued operation and maintenance of nonpower facilities and fulfill such other obligations under the license as the Commission may prescribe. In addition, the Commission in its discretion, after notice and opportunity for hearing, may also agree to the surrender of the license when the Commission, for the reasons recited herein, deems it to be the intent of the Licensee to surrender the license.

Article 18. The right of the Licensee and of its successors and assigns to use or occupy waters over which the United States has jurisdiction, or lands of the United States under the license, for the purpose of maintaining the project works or otherwise, shall absolutely cease at the end of the license period, unless the Licensee has obtained a new license pursuant to the then existing laws and regulations, or an annual license under the terms and conditions of this license.

Article 19. The terms and conditions expressly set forth in the license shall not be construed as impairing any terms and conditions of the Federal Power Act which are not expressly set forth herein.