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February 1, 2001

Honorable David P. Boergers
Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, D.C. 20426

041

Re: **Northern States Power Company-Wisconsin — Project Nos. 1982, 2639, 2491, 2567, 2440 and City of Eau Claire — Project No. 2670. and P-2491-025 P-2440-040 P-2639-009**
Submission of Lower Chippewa River Settlement Agreement

Dear Mr. Boergers:

Transmitted herewith for filing as an Offer of Settlement pursuant to Rule 602 of the Commission's Regulations, 18 C.F.R. § 385.602, are an original and eight copies of the Lower Chippewa River Settlement Agreement dated as of January 17, 2001 ("Settlement Agreement").

This Settlement Agreement has been executed by Northern States Power Company-Wisconsin (NSPW; doing business as Xcel Energy), the City of Eau Claire, Wisconsin, the Wisconsin Department of Natural Resources (WDNR), the U.S. Fish and Wildlife Service, the National Park Service, the River Alliance of Wisconsin, the Wisconsin Conservation Congress, the Chippewa Rod & Gun Club, the Lake Holcombe Improvement Association, the Lake Wissota Improvement Association, and the Lower Chippewa Restoration Coalition, Inc., (hereinafter collectively referred to as the "Parties").

The purpose of the Settlement Agreement is to set forth the principal environmental conditions which the Parties have agreed should be incorporated into new licenses for the Holcombe (P-1982), Wissota (P-2567) and the Dells (P-2670) projects as well as several amendments which the Parties have agreed should be added to the licenses for the Jim Falls (P-2491), Chippewa Falls (P-2440) and Cornell (P-2639) projects. The Settlement Agreement is enclosed as Part A of this filing and the license amendments upon which the Parties agreed are contained in Part B of this filing.

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I. COMMENTS

Any comments on this Settlement Agreement, will in accordance with Rule 602(f), be due by February 21, 2001 (20 days from submittal date of Settlement Agreement) and any responses to such comments will be due by March 5, 2001 (10 days after comment submittal).

II. EXPLANATORY STATEMENT FOR THE LOWER CHIPPEWA RIVER SETTLEMENT AGREEMENT

RELICENSING PROGRAM OVERVIEW

Chippewa River Hydro System

Northern States Power Company-Wisconsin (NSPW) operates and is the licensee for six hydroelectric projects on the Lower Chippewa River in west-central Wisconsin. Each project is licensed by the Federal Energy Regulatory Commission (FERC). The names of the projects and their FERC project numbers, in upstream to downstream order, are: Holcombe (P-1982), Cornell (P-2639), Jim Falls (P-2491), Wissota (P-2567), Chippewa Falls (P-2440) and Dells (P-2670). Three of the projects, Holcombe, Wissota and Dells, must be relicensed and have license applications pending with the FERC, while the other three projects each have at least 23 years remaining on their current licenses. All of the projects are owned by NSPW, except for the Dells Dam and the integral powerhouse 'A' which are owned by the City of Eau Claire and leased to NSPW for operation (the City is a co-licensee with NSPW for the Dells Project).

New License Applications For Holcombe, Wissota and Dells Projects

The new license applications that are pending with the FERC for the Holcombe, Wissota and Dells Projects were prepared by NSPW following the traditional three-stage relicensing process that is outlined in 18 CFR, Subparts 4.51 (Application for License for Major Project – Existing Dam) and 16.8. Because of an earlier license expiration date, the license application for the Holcombe Project was filed about two years in advance (mid-1996) of the other two license applications (mid-1998). The filing dates and other relevant facts about each of the license applications are summarized below.

Holcombe Project Relicensing – 1993 to Present:

- Notification of Intent to Relicense Project – transmitted to the FERC on 6/3/93.
- Initial Consultation Package – distributed to 28 consulted parties on 4/30/93.
- Draft License Application – distributed to 28 consulted parties on 6/7/95.
- License Application –filed with FERC on 6/21/96; tendered for filing with the Commission on 7/5/96.
- FERC Additional Information Request dated 5/8/97 - licensee responded on 7/24/97.
- FERC Annual License – issued 7/1/98.

Wissota Project Relicensing – 1995 to Present:

- Notification of Intent to Relicense Project – transmitted to the FERC on 3/27/95.
- Initial Consultation Package – distributed to 28 consulted parties on 3/27/95.
- Lake Wissota Advisory Committee formed and agreement finalized on 5/6/98.
- Draft License Application – distributed to 28 consulted parties on 5/15/97.
- License Application –filed with the FERC on 6/22/98; tendered for filing with the Commission on 7/22/98.
- FERC Annual License – issued on 7/13/00.

Dells Project Relicensing – 1995 to Present:

- Notification of Intent to Relicense Project – transmitted to the FERC on 8/25/95.
- Initial Consultation Package – distributed to 28 consulted parties on 10/20/95.
- Dam purchase option negotiated with City of Eau Claire by NSPW on 11/26/97.
- Draft License Application – distributed to 28 consulted parties on 10/3/97.
- License Application – filed with the FERC on 8/24/98; tendered for filing with the Commission on 9/16/98.
- FERC Annual License – issued on 10/17/00.

Negotiated Settlement

Between the time the Holcombe license application was filed with the FERC and the Wissota and Dells license applications were filed, NSPW and the key resource agencies made the decision to enter into a negotiated settlement. The settlement was initiated at that time (autumn 1997) because the parties believed that a negotiated settlement would be the most effective way to reach agreement on some critical unresolved environmental issues. Most notable among these was the issue of hydro peaking and the associated effect of variable reservoir and tailwater water levels throughout the lower Chippewa River hydro system. Resolution of these issues was essential for the WDNR to issue the required water quality certifications, pursuant to Section 401 of the Federal Water Pollution Control Act, for the three projects subject to relicensing. The timing of the decision to proceed with the negotiated settlement was shortly after NSPW had received a letter from the FERC that encouraged NSPW to act promptly and to explore all available options to acquire Section 401 certification for the Holcombe Project. The FERC was notified of the parties intent to pursue a negotiated settlement and a FERC representative attended the first settlement team meeting, held December 3, 1997. This meeting was public noticed by the FERC in the Federal Register on November 25, 1997.

Participants (Parties): NSPW invited all known groups and organizations with an interest in the lower Chippewa River to participate in the negotiated settlement but many groups either did not have the time, resources or interest to stay actively involved. Thus, participation was narrowed to the 11 Parties who negotiated the Settlement Agreement: NSPW, City of Eau Claire, Wisconsin Department of Natural Resources (WDNR), U.S. Fish and Wildlife Service, National Park Service, River Alliance of Wisconsin, Wisconsin Conservation Congress, Chippewa Rod & Gun Club, Lake Holcombe Improvement Association, Lake Wissota Improvement Association, and the Lower Chippewa Restoration Coalition, Inc. The Army Corps of Engineers also participated in the settlement negotiations, as an interested party, and helped draft the settlement agreement.

Issues: A summary of the 23 major issues that were identified, negotiated and resolved in the Settlement Agreement is presented in Table 1. Included are some systemic issues that

involve hydro operational changes for the three Chippewa River hydro projects that are not subject to relicensing at this time: the Cornell, Jim Falls and Chippewa Falls projects. The changes that have been negotiated for these three projects are identified in the Settlement Agreement and are more specifically described in the license amendment applications that are contained in Part B of this filing.

Negotiations/Meetings: Approximately monthly meetings of the settlement team and interim meetings of assorted committees were used over the course of three years to develop alternative mitigation strategies, proposals, and plans, and to negotiate the issues. Detailed minutes were developed for each meeting, distributed to all interested parties, and retained for documentation purposes. The FERC was kept abreast of the negotiations throughout the settlement process via quarterly progress reports that the FERC had directed NSPW to submit for the Holcombe Project.

Settlement Agreement: The Settlement Agreement provides resolution for all issues that were identified by the Parties for the relicensing of the Holcombe, Wissota and Dells projects including: Power generation and capacity; water level and flow fluctuations associated with project operations; protection and enhancement of fish populations and other forms of aquatic life; lands management; water quality monitoring; enhanced flows for recreational boating; recreational facility enhancements; management of endangered, threatened and sensitive species; exotic/nuisance species control; future dam responsibility for the projects; and other matters. The Settlement Agreement resolves all substantive areas of disagreement and outstanding areas of concern among the 11 Parties to the Settlement Agreement. Moreover, all Parties concur that the settlement is a fair compromise that balances the non-power and power issues associated with relicensing the projects by the FERC.

Pursuant to Section 401 of the Federal Water Pollution Control Act, the WDNR has indicated it will grant water quality certification for the Holcombe, Wissota and Dells projects within 180 days of the signature date of the settlement, consistent with the terms of the Settlement Agreement for the said projects.

Implementation Plans: A total of 19 plans were developed by NSPW, approved by the settlement team, and are appended to the Settlement Agreement. These plans are an important part of the settlement in that they describe actions, activities, or measures that NSPW has agreed to implement or follow pursuant to the provisions of the Settlement Agreement. The plans are therefore considered an integral part of the settlement offer.

New Licenses: The Settlement Agreement includes and reflects all of the pertinent environmental and operating conditions which the Parties agree should be incorporated into the new licenses for Project Nos. 1982, 2567 and 2670.

License Amendments: The Settlement Agreement provides that NSPW will no later than 60 days from the date of the filing of the Settlement Agreement submit applications requesting certain flow-related and reservoir operating band amendments to the licenses for those projects which are not currently undergoing relicensing, namely, Project Nos. 2440, 2491 and 2639. Those license amendment requests are contained in Part B of this filing.

Specific reference is made to the license amendment application for the Chippewa Falls Project (P-2440) which among other items addresses a rehearing request, filed by NSPW on January 28, 1998, that sought reconsideration of the Commission's December 29, 1997 *Order Modifying and Approving Plans to Reduce Entrainment of Resident Fish and Monitor Effectiveness of Trashracks in Reducing Turbine Mortality.* The Commission granted NSPW's rehearing request by order issued February 13, 1998, but further action on the matter was deferred by the Director, Division of Licensing and Compliance, Mr. J. Mark Robinson (letter dated May 27, 1999) pending the outcome of the subject negotiated settlement. Given that the settlement Parties reached agreement on the issues that were contested in the rehearing request, as described in the accompanying license amendment application for Project No. 2440, NSPW requests that the Commission take whatever actions are necessary to bring closure to the referenced rehearing matter.

III. REFERENCES TO ANY DOCUMENT, TESTIMONY OR EXHIBIT RELEVANT TO THE SETTLEMENT AGREEMENT

The three pending applications for new licenses for Project Nos. 1982, 2567 and 2670 together with all supplemental information filed by NSPW contain the information of record most pertinent to this Settlement Agreement. There has not been a date set for formal hearing on any of these applications.

IV. CONCLUSION

NSPW requests that the Commission complete its processing of the pending new license applications and of the amendment applications included in Part B of this filing, approve the Settlement Agreement, and include in the three new licenses to be issued and in the three existing licenses to be amended conditions which reflect the agreement of the Parties to the Settlement Agreement.

Very truly yours,

Lloyd Everhart

Lloyd Everhart, Administrator
Hydro Licensing

cc: Attached Distribution List
Mark Pawlowski, FERC
Corporate File

TABLE 1. ISSUES IDENTIFIED AND RESOLVED FOR THE LOWER CHIPPEWA RIVER SETTLEMENT AGREEMENT.

ISSUE	HYDRO PROJECT	STATUS
1. Bypass channel flows	Jim Falls	
• 240 cfs YR minimum flow		Resolved
• Sturgeon flow augmentation		Resolved
• Kayaking flow releases		Resolved; plan developed
2. Instream minimum flow	Cornell	Resolved
	Dells	Resolved
3. Upstream fish passage	Holcombe, Wissota & Dells	Resolved
4. Threatened & endangered sp.	Holcombe, Wissota & Dells	Resolved; plan developed
5. Future dam responsibility	Holcombe, Wissota & Dells	Resolved; plan developed
6. Section 401 WQ certificate	Holcombe, Wissota & Dells	Resolved
7. Low flow management plan	All six projects	Resolved; plan developed
8. Habitat enhancement (fund)	Holcombe, Wissota & Dells	Resolved
9. Trashrack debris disposal	Holcombe, Wissota & Dells	Resolved; plan developed
10. Compliance monitoring	Holcombe, Wissota & Dells	Resolved; plan developed
11. Plant outages	Holcombe, Wissota & Dells	Resolved; plan developed
12. Fish stranding in tailwaters	All six projects	Resolved; plan developed
13. Recreational facility improvements and brochures	Holcombe, Wissota & Dells	Resolved; three plans developed
14. Reservoir drawdowns		
• Annual	Holcombe & Wissota	Resolved
• Maintenance	Holcombe, Wissota & Dells	Resolved; plan developed
• Emergency	Holcombe, Wissota & Dells	Resolved; plan developed
15. Daily reservoir water level variance		
• Winter	Holcombe	Resolved
• Open water seasons	All six reservoirs	Resolved
16. Lands management		
• Residential development lands	Holcombe	Withdrawn from settlement
• Management plans	Holcombe, Wissota & Dells	Resolved; three plans developed
• Non-project lands	Holcombe, Wissota & Dells	Resolved; in management plans
17. Shoreline erosion protection	Holcombe	Resolved; plan developed
	Wissota & Dells	Resolved; plans developed
18. Fish turbine entrainment (fund)	Holcombe, Wissota & Dells	Resolved
19. Exotic species control	Holcombe, Wissota & Dells	Resolved; plan developed
20. Sturgeon mortality	Wissota, Jim Falls & Chip.Falls	Resolved; plan developed
21. Erosion/sediment transport in tailwaters	Dells	Resolved; issue dismissed
22. Coordination of river regulation with Corps of Engineers	Dells	Resolved
23. Fish entrainment/trashrack effectiveness study	Chippewa Falls	Resolved

DISTRIBUTION LIST FOR THE LOWER CHIPPEWA RIVER SETTLEMENT AGREEMENT

Federal Agencies

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Bureau of Indian Affairs
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Regional Envmtl. Coord., Midwest Office
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National Park Service
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Ms. Peggy Harding, Regional Director
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River Conservation Coordinator
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Milwaukee, WI 53203

Environmental Impact Review Officer
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Chicago, IL 60604-3590

Director, Office of Envmtl. Policy & Compliance
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Main Interior Building, MS 2340
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Washington, D.C. 20240

DISTRIBUTION LIST FOR THE LOWER CHIPPEWA RIVER SETTLEMENT AGREEMENT

State and Local Agencies and Settlement Parties

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DISTRIBUTION LIST FOR THE LOWER CHIPPEWA RIVER SETTLEMENT AGREEMENT

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Tribal Chairman
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Tribal Chairman
Lac Du Flambeau Chippewa Tribe
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Lac Du Flambeau, WI 54538

Tribal Chairman
Mole Lake Chippewa Tribe
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Crandon, WI 54520

Tribal Chairman
Mille Lacs Chippewa Tribe
HCR 67, Box 194
Onamia, MN 56359

Tribal Chairman
Red Cliff Chippewa Tribe
Box 539
Bayfield, WI 54814

Tribal Chairman
Grand Portage Chippewa Tribe
Grand Portage, MN 55605

Tribal Chairman
Fond du Lac Chippewa Tribe
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Tribal Chairman
Lac Courte Oreilles Chippewa Tribe
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Hayward, WI 54843

Tribal Chairman
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DISTRIBUTION LIST FOR THE LOWER CHIPPEWA RIVER SETTLEMENT AGREEMENT

Other Interested Parties

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Terry Mesch
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PART B

OFFER OF SETTLEMENT

FOR THE LOWER CHIPPEWA RIVER

SETTLEMENT AGREEMENT

(Includes Individual License Amendment Applications for the Cornell, Jim Falls and Chippewa Falls Projects)

(a) INITIAL STATEMENT

BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

Northern States Power Company (d.b.a. Xcel Energy) **Project No. 2440**

APPLICATION PURSUANT TO THE LOWER CHIPPEWA RIVER SETTLEMENT AGREEMENT FOR AMENDMENT OF LICENSE TO MODIFY MINIMUM FLOW PROVISION AND ELIMINATE TRASHRACK EFFECTIVENESS STUDY FOR THE CHIPPEWA FALLS PROJECT

(1) Pursuant to Sections 3.1.5 and 4.1.5.1 of the Lower Chippewa River Settlement Agreement, dated January 17, 2001, Northern States Power Company - Wisconsin (d.b.a. Xcel Energy; hereinafter "Xcel Energy") applies to the Federal Energy Regulatory Commission for an amendment of license for the Chippewa Falls Hydroelectric Project (FERC No. 2440) authorizing the modification of present operations.

(2) Communications in connection with this matter should be addressed to:

William P. Zawacki
Xcel Energy
1414 West Hamilton Avenue
P.O. Box 8
Eau Claire, WI 54702-0008
Telephone (715) 836-1136

William J. Madden Jr.
Winston and Strawn
1400 L Street
Washington, D.C. 2005-3502
Telephone (202) 371-5715

(3) The applicant is a business corporation and licensee for the water power project, designated as Project No. 2440 in the records of the Federal Energy Regulatory Commission, issued on the 14th day of January, 1994 to the Northern States Power Company of Eau Claire, Wisconsin.

(4) The amendment of license proposed and the reason why the proposed changes are necessary, are:

Applicant proposes changes in the minimum flow (Article 401) of the Chippewa Falls Project. The proposed new operating regime is to provide additional river flows in the Chippewa Falls tailwater for the benefit of the aquatic resources present.

Applicant also proposes that Article 408 be modified to eliminate the trash rack effectiveness study.

(4)(i) General Background Information

The current license for the Chippewa Falls Project extends for a period of 40 years until January 14, 2034. This amendment application has been prompted by relicensing activities for other hydro projects on the lower Chippewa River. The Applicant has been involved in relicensing the Wissota Project (FERC Project No. 2567), located directly upstream from the Chippewa Falls Project, since the mid-1990's. The Wissota license expired on June 30, 2000 and Applicant has been operating under annual licenses since then. Two other of Applicant's projects on the Chippewa River have operating licenses which expired recently: The Holcombe Project's (FERC Project No. 1982) license expired on June 30, 1998 and the Dells Project (FERC Project No. 2670) license expired on August 31, 2000. Both projects have license applications pending with the Commission and have been operated under annual licenses since the expiration of their current licenses.

As a means of reaching agreement on some critical environmental issues for the three projects undergoing relicensing, a negotiated settlement was undertaken by the Applicant and interested stakeholder groups. A settlement team was established which included representatives from fish and wildlife agencies, river advocacy groups and local groups with interests on the Chippewa River. The relicensing issues to be addressed included the cumulative, river-wide impacts of all six hydro projects that are located on the lower Chippewa River. The settlement team met over a three-year period (December 1997 – December 2000) and eventually resolved all outstanding issues. The product of the negotiations was the Lower Chippewa River Settlement Agreement, filed herewith as Part A of the offer of settlement, which details all of the operational, environmental and recreational provisions that were negotiated for the hydro projects.

The most difficult aspect of the settlement negotiations was to reach agreement on the hydro projects' operating restrictions. As a means of reaching agreement on these issues, Applicant made concessions and trade-offs that affected the three projects on the lower Chippewa River that were not subject to relicensing, including the Chippewa Falls Project. This was done to address the cumulative, river-wide issues and to resolve issues for the three projects undergoing relicensing. This give-and-take enabled the settlement parties to agree on the future hydro operating conditions and to insure environmental protection in the various river areas affected by all six of the hydro projects.

As agreed upon in the Lower Chippewa River Settlement Agreement, Applicant is to amend the licenses for the three projects that are not currently subject to relicensing. Those projects include the Chippewa Falls Project and prompted the preparation of this license amendment application.

(4)(ii) License Article 401 of the Chippewa Falls License

The proposed changes to the Chippewa Falls Project operations involve Article 401 of the January 14, 1994 FERC license order for the project which reads, in abbreviated form, as follows:

> *Article 401. The Licensee shall release from the Chippewa Falls Project in the Chippewa River a minimum flow of 1,000 cubic feet per second (cfs) during the period from April 15 through May 31 and a minimum flow of 785 cfs during the period from June 1 through April 14, as measured at the U.S. Geological Survey gaging station located 1 mile downstream of the Chippewa Falls Project, or inflow to the project reservoir, whichever is less, for the protection and enhancement of fish and wildlife resources and water quality in the Chippewa River. The above minimum flow requirement shall become effective when the Licensee installs a new adjustable propeller-type turbine capable of operating efficiently at 785 cfs, but not later than December 31, 1994.....*

(4)(iii) Proposed Changes to License Article 401 of the Chippewa Falls License

Applicant proposes modifications to Article 401 of the existing license to incorporate the higher minimum flow provision that was agreed upon in the Lower Chippewa River Settlement Agreement. The new language proposed by the Applicant for Article 401 follows (bolded text denotes the proposed modification):

> *Article 401. The Licensee shall release from the Chippewa Falls Project in the Chippewa River* ***a minimum flow of 1,000 cubic feet per second (cfs) during all times****, as measured at the U.S. Geological Survey gaging station located 1 mile downstream of the Chippewa Falls Project, or* ***natural*** *inflow to the project reservoir, whichever is less, for the protection and enhancement of fish and wildlife resources and water quality in the Chippewa River.*

(4)(iv) Rationale for Modifying Minimum Flow Requirement

Minimum flow. An instream flow and recreational navigation study was conducted in 1988 as part of relicensing the Chippewa Falls Project to determine suitable minimum flows for aquatic resources and recreational navigation in the Chippewa Falls tailwater. The results of the two studies are summarized in Table E-23 of Volume I of the Chippewa Falls License Application, dated December 18, 1991. The study results show that the proposed minimum flow increase will provide acceptable habitat for fish, expand benthic invertebrate habitat, and provide marginally acceptable conditions for navigating the river with an outboard boat and motor (previously acceptable only for canoes). The

higher minimum flow will also lend stability to the aquatic habitat and enhance all of the river's biological resources and recreational opportunities. Reduced numbers of tailwater fish stranding incidents should also result since the river fluctuations will be less extreme and flows more consistent (≥1,000 cfs except for periods of extremely low river flows). On the power generation side, the higher minimum flow will result in the project's minimum flow turbine(s) being operated at a more efficient gate setting which means more power will be produced for an equivalent volume of flow.

(4)(v) Elimination of the Effectiveness Study Requirements of Article 408

Xcel Energy was directed by Article 408 of the January 14, 1994 FERC license for the Chippewa Falls Project to install and evaluate the effectiveness of narrow-spaced vertical bar trash racks (1-inch clear opening) as a fish entrainment deterrence or exclusionary device. The 1-inch bar trash racks were installed shortly after license issuance but the effectiveness study was not conducted because of disagreement between NSPW and agencies over the scope of studies to be performed. NSPW filed for and was granted rehearing (Order issued February 13, 1998) on the ensuing FERC license order, however, no further action was taken until after negotiations had begun for the Lower Chippewa River Settlement Agreement. At that time, the parties to the settlement proposed and the FERC concurred, by letter dated May 27, 1999, that the Chippewa Falls trash rack effectiveness study issue should be considered with the other issues for the Chippewa River that were to be resolved through the negotiated settlement. As a result of that decision, the stakeholders extensively discussed the effectiveness study issue and ultimately agreed to the following: In lieu of a study to determine the effectiveness of the narrow-spaced trash racks and residual fish losses at the Chippewa Falls Project, Xcel Energy shall commit additional monies (a one-time sum of $250,000) to a designated account known as the Fish Protection Fund (FPF), so that protective measures can be installed at the site if technological advances yield a practicable and effective alternative.

As stated above, Xcel Energy and the other settlement stakeholders agreed, pursuant to section 4.1.5.1 of the Lower Chippewa River Settlement Agreement, that a one-time sum of $250,000 shall be set aside in the Settlement Agreement's FPF in lieu of conducting a trash rack effectiveness study at the Chippewa Falls Project. Accordingly, the Applicant proposes that the FERC delete the second paragraph of Article 408 of the January 14, 1994 license for the Chippewa Falls Project and insert the following replacement paragraph.

> *In lieu of monitoring the effectiveness of the full-depth trash racks or determining residual fish losses as a result of turbine-induced mortality, Licensee shall deposit a one-time sum of $250,000 into the Fish Protection Fund account of the Chippewa River Protection and Restoration Fund. The funds shall be deposited into the said account, managed and used as described in sections 4.1.5.1 through 4.1.5.7 of the Lower Chippewa River Settlement Agreement.*

In addition, Applicant requests Commission action on the rehearing request that was filed by NSPW on January 28, 1998, and granted by the Commission on February 13, 1998, for the Chippewa Falls Project. The rehearing request sought reconsideration of the Commission's December 29, 1997 *Order Modifying and Approving Plans to Reduce Entrainment of Resident Fish and Monitor Effectiveness of Trashracks in Reducing Turbine Mortality.* Given that the settlement Parties reached agreement on the issues that were contested in the rehearing request, as described above, NSPW requests that the Commission issue an order that will bring closure to the said rehearing matter.

(b) Required Exhibits For Capacity Related Amendment

Modification of the existing minimum flow requirement and elimination of the trash rack effectiveness study at the Chippewa Falls Project will not alter the installed generation capacity of the project; therefore, there are no specific exhibits required.

(c) Required Exhibits For Non-Capacity Related Amendment

Modification of the existing minimum flow requirement and elimination of the trash rack effectiveness study at the Chippewa Falls Project will not require the altering of any of the project structures. Applicant is unaware of any other exhibits that are required to be modified or amended for this application.

(d) Agency Consultation

Pursuant to 18 CFR 4.38(a)(5), an Applicant for an amendment application is required to consult with relevant Federal, State and interstate resource agencies and any Indian tribe that may be affected by the proposed project.

Xcel Energy conducted full and open consultation with all interested parties on these matters during the three-year negotiated settlement process and has the full support of all involved parties for this license amendment application, as evidenced by the signed Settlement Agreement.

Xcel Energy has also mailed this application to all applicable organizations (transmittal letter and mailing list attached) requesting comments on the proposed project. If any comments are received, they will be filed with the Commission as a supplement to this application.

(a) INITIAL STATEMENT

BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

Northern States Power Company (d.b.a. Xcel Energy) **Project No. 2491**

APPLICATION PURSUANT TO THE LOWER CHIPPEWA RIVER SETTLEMENT AGREEMENT FOR AMENDMENT OF LICENSE TO MODIFY MINIMUM FLOW PROVISIONS AND HEADWATER LIMITS FOR THE JIM FALLS PROJECT

(1) Pursuant to section 3.1.3 of the Lower Chippewa River Settlement Agreement, dated January 17, 2001, Northern States Power Company - Wisconsin (d.b.a. Xcel Energy; hereinafter "Xcel Energy") applies to the Federal Energy Regulatory Commission for an amendment of license for the Jim Falls Hydroelectric Project (FERC No. 2491) authorizing the modification of present operations.

(2) Communications in connection with this matter should be addressed to:

William P. Zawacki
Xcel Energy
1414 West Hamilton Avenue
P.O. Box 8
Eau Claire, WI 54702-0008
Telephone (715) 836-1136

William J. Madden Jr.
Winston and Strawn
1400 L Street
Washington, D.C. 2005-3502
Telephone (202) 371-5715

(3) The applicant is a business corporation and licensee for the water power project, designated as Project No. 2491 in the records of the Federal Energy Regulatory Commission, issued on the 24th day of July, 1984 to the Northern States Power Company of Eau Claire, Wisconsin.

(4) The amendment of license proposed and the reason why the proposed changes are necessary are:

Applicant proposes changes to the minimum flow and allowable headwater fluctuation limits of the Jim Falls Project. The proposed new operating regime is to provide additional river flows in the Jim Falls bypass river channel for the benefit of the aquatic resources present and to provide whitewater recreational opportunities, as well as to provide reduced pond level fluctuations during the spring season when many species of fish spawn in the project's reservoir.

(4)(i) General Background

The current license for the Jim Falls Project extends for a period of fifty years until September 30, 2033. This application has been prompted by other hydro relicensing activities on the lower Chippewa River. The Applicant has been involved in relicensing the Holcombe Project (FERC Project No. 1982), located approximately 18 river miles upstream from the Jim Falls Project, since the early-1990's. The Holcombe Project's license expired on June 30, 1998. Two other of Applicant's projects on the Chippewa River have operating licenses which recently expired: The Wissota Project's (FERC Project No. 2567) license expired on June 30, 2000 and the Dells Project's (FERC Project No. 2670) license expired on August 31, 2000. All three projects have license applications pending with the Commission and have been operated under annual licenses since their licenses expired.

As a means of reaching agreement on some critical environmental issues for the three above mentioned projects undergoing relicensing, a negotiated settlement was undertaken by the Applicant and interested stakeholder groups. A settlement team was established which included representatives from fish and wildlife agencies, river advocacy groups and local groups with interests on the Chippewa River. The relicensing issues to be addressed included the cumulative, river-wide impacts of all six hydro projects that are located on the lower Chippewa River. The settlement team met over a three-year period (December 1997 – December 2000) and eventually resolved all outstanding issues. The product of the negotiations was the Lower Chippewa River Settlement Agreement, filed herewith as Part A of the offer of settlement, which details all of the operational, environmental and recreational provisions that were negotiated for the hydro projects.

The most difficult aspect of the settlement negotiations was to reach agreement on the hydro projects' operating restrictions. As a means of reaching agreement on these issues, Applicant made concessions and trade-offs that affected the three projects on the lower Chippewa River that were not subject to relicensing, including the Jim Falls Project. This was done to address the cumulative, river-wide issues and to resolve issues for the three projects undergoing relicensing. This give-and-take enabled the settlement parties to agree on the future hydro operating conditions and to insure environmental protection in the various river areas affected by all six of the hydro projects.

As agreed upon in the Lower Chippewa River Settlement Agreement, Applicant is to amend the licenses for the three projects that are not currently subject to relicensing. Those projects include the Jim Falls Project and prompted the preparation of this license amendment application.

(4)(ii) Proposed License Article Modifications and Additions for the Jim Falls Project

(4)(ii)(a) The minimum flow provisions for the Jim Falls Project are addressed in Article 42 of the July 24, 1984 FERC license order for the project. The present article reads as follows:

> *Article 42. The Licensee shall discharge from the Jim Falls Project, a continuous minimum flow measured in the bypass reach as follows: from the time of ice-out in the spring through October 31 – 240 cubic feet per second (cfs), and November 1 through the time of ice-out in the spring – 20 cfs, or inflow to the reservoir, whichever is less, for the protection and enhancement of aquatic resources in the Chippewa River. These flows 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 Wisconsin Department of Natural Resources.*

(4)(ii)(b) Applicant proposes modifications to Article 42 of the current license to incorporate the minimum flow provisions and headwater limits that were agreed upon in section 3.1.3 of the Lower Chippewa River Settlement Agreement. The new language proposed by the Applicant for Article 42 follows (bolded text denotes the proposed modifications and additions):

> *Article 42. The Licensee shall discharge from the Jim Falls Project, a continuous minimum flow measured in the bypass reach as follows: from* ***April 1 through May 31 - 850*** *cubic feet per second (cfs),* ***to enhance spawning conditions for lake sturgeon and other fish species****, and* ***from June 1 through March 31 – 240 cfs****, for the protection and enhancement of aquatic resources in the Chippewa River. These flows 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 Wisconsin Department of Natural Resources.*
>
> ***In addition, intermittent flows totaling at least 650 cfs shall be released into the bypass reach by Licensee each summer to provide whitewater recreational boating opportunities. The 650 cfs flow releases shall occur on the second and fourth Saturdays of July and the second Saturday and the third Sunday in August as follows: 1) dam spillage shall be initiated by Licensee so that peak flows occur mid-way down the bypass reach (abandoned bridge site) between 10:00 a.m. and 3:00 p.m.; 2) ramping down of the flows shall begin no earlier than 3;00 p.m. at which time 450 cfs shall be released and held for at least 1.5 hours; and 3) at 4:30 p.m.***

flows shall be returned to 240 cfs. The document titled Recreational Flow Release Plan For Whitewater Boating In The Jim Falls Bypass River Channel, which is Appendix C of the Lower Chippewa River Settlement Agreement (dated January 17, 2001), describes licensee's commitments and is incorporated herein by reference.

While complying with the above minimum flow requirements, Licensee shall operate the project dam and powerhouse in such a manner that water level fluctuations in the project's impoundment (Old Abe Lake) are limited to the following:

1) From April 1 through June 7, the reservoir shall be maintained within 0.80 feet of full pool (elevation 952.4 to 953.2 ft msl) to enhance fish spawning conditions; and

2) At all other times, the reservoir elevation shall be maintained and operated between elevations 951.2 and 953.2 ft msl in accordance with the current license.

(4)(iiii) Rationale for Modifying Minimum Flows and Headwater Limits

Spring-time Minimum flow. The higher springtime minimum flow (850 cfs) that Applicant has agreed to release from the Jim Falls Project pursuant to the Settlement Agreement will enhance the spawning habitat for lake sturgeon as well as several other important gamefish species (walleye, smallmouth bass, muskellunge and catfish sp.) in the bypass reach. The lake sturgeon is a state Watch List Species and a federal species of concern that has historically congregated in the Jim Falls Project's bypass channel during the spring for spawning; therefore, it is the main focus of the higher minimum flow. The proposed minimum flow resulted from a qualitative assessment made by two fisheries biologists from the Wisconsin Department of Natural Resources, one a lake sturgeon specialist, who assessed various flows in the bypass reach up to 850 cfs. They recommended adoption of the 850 cfs flow based on their knowledge of sturgeon spawning needs at other sites in Wisconsin and habitat suitability index (HSI) curves for lake sturgeon that have been developed by the Michigan Department of Natural Resources. The HSI curves show that preferred lake sturgeon spawning habitat occurs at depths from 3 to 10 feet deep and at current velocities of 2 to 6 feet per second, both of which will be appreciably expanded in the bypass reach with the proposed 850 cfs flow. Although the fish spawning habitat enhancements are difficult to quantify, the 3.5 fold increase in flow should roughly equate to similar gains in spawning habitat.

Higher Winter-time Minimum Flow. Applicant agreed in the Lower Chippewa River Settlement Agreement, and herewith proposes to release a winter-time minimum flow in the Jim Falls bypass channel of 240 cfs rather than the current minimum flow which is 20 cfs. The higher winter-time flow regime will create a more stable environment for fish and other aquatic organisms in the channel and prevent the losses of many juvenile fish and invertebrates that occurred each fall when flows in the channel were reduced by the

Applicant from the summer to the winter flow regime. In recent years, Applicant's staff and staff from the Wisconsin Department of Natural Resources have cooperated to recover fish that were stranded in the channel when the transition was made from summer to winter flows. Many large lake sturgeon were moved to safe areas in the channel at the time but there were many small, juvenile fish, primarily young-of-year smallmouth bass, as well as crayfish and other small invertebrates that could not be recovered in the rubble/boulder-clad channel and were casualties as a result of the flow change. These types of losses will be avoided in the future with implementation of the proposed higher winter minimum flow and will benefit the fishery of the channel as well as the downstream reservoir (Lake Wissota).

Flow Releases for Recreational Boating. The Jim Falls bypass channel is probably the best site on the lower Chippewa River for whitewater boating opportunity. The channel has about 20 feet of fall over its three-quarter mile length with most of that occurring at three sites (chutes) in the lower half of the reach. The site has received very minimal usage in the past from whitewater enthusiasts because the channel experiences sufficiently high flows only during dam spillage events which are intermittent and unpredictable. This observation prompted the National Park Service, a stakeholder in the Lower Chippewa River Settlement Agreement, to seek improvements in the Jim Falls bypass channel for the interests of whitewater recreationists. Accordingly, a suitability study for kayak usage was performed during the settlement process and resulted in the 650 cfs flow releases that are herein proposed. The 650 cfs flow was judged by the participants in the study (nine kayakers with variable skill levels) as the flow level which provided the highest quality experience among the four evaluated flows (240, 450, 650 and 850 cfs). The timing and the schedule for the whitewater releases that are herein proposed was determined by negotiation of the settlement team. A more complete discussion of the recreational study that resulted in this flow recommendation can be found in Appendix C of the Lower Chippewa River Settlement Agreement.

Headwater Fluctuation Limits. The proposed reduction in reservoir headwater fluctuation limits during the springtime (April 1 – June 7) is less than one-half the historic operating range and should enhance spawning conditions for fish during their primary reproduction season. The existing license allows for a headwater fluctuation range of 2.0 ft. during the spring which may impact the spawning success of certain fish species that are known to utilize the reservoir's shallows for spawning (i.e., northern pike, centrarchids). The reduced headwater fluctuation will minimize the disturbances to spawning fish, reduce the potential for stranding and desiccation of their eggs, and provide increased shallow water nursery habitat and predator escape cover for larval fish.

(b) Required Exhibits For Capacity Related Amendment

Modification of the existing minimum flow and headwater limits at the Jim Falls Project will not alter the installed generation capacity of the project; therefore, there are no specific exhibits required.

(c) Required Exhibits For Non-Capacity Related Amendment

Modification of the existing minimum flow and headwater limits at the Jim Falls Project will not require the alteration of any of the project structures. Applicant is unaware of any other exhibits that are required to be modified or amended for this application.

(d) Agency Consultation

Pursuant to 18 CFR 4.38(a)(5), an Applicant for an amendment application is required to consult with relevant Federal, State and interstate resource agencies and any Indian tribe that may be affected by the proposed project.

Xcel Energy conducted full and open consultation with all interested parties on these matters during the three-year negotiated settlement process and has the full support of all involved parties for this license amendment application, as evidenced by the signed Settlement Agreement.

Xcel Energy has also mailed this application to all applicable organizations (transmittal letter and mailing list attached) requesting comments on the proposed project. If any comments are received, they will be filed with the Commission as a supplement to this application.

(a) INITIAL STATEMENT

BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

Northern States Power Company (d.b.a. Xcel Energy) **Project No. 2639**

APPLICATION PURSUANT TO THE LOWER CHIPPEWA RIVER SETTLEMENT AGREEMENT FOR AMENDMENT OF LICENSE TO MODIFY MINIMUM FLOW PROVISION AND HEADWATER LIMITS FOR THE CORNELL PROJECT

(1) Pursuant to section 3.1.2 of the Lower Chippewa River Settlement Agreement, dated January 17, 2001, Northern States Power Company - Wisconsin (d.b.a. Xcel Energy; hereinafter "Xcel Energy") applies to the Federal Energy Regulatory Commission for an amendment of license for the Cornell Hydroelectric Project (FERC No. 2639) authorizing the modification of present operations.

(2) Communications in connection with this matter should be addressed to:

William P. Zawacki
Xcel Energy
1414 West Hamilton Avenue
P.O. Box 8
Eau Claire, WI 54702-0008
Telephone (715) 836-1136

William J. Madden Jr.
Winston and Strawn
1400 L Street
Washington, D.C. 2005-3502
Telephone (202) 371-5715

(3) The applicant is a business corporation and licensee for the water power project, designated as Project No. 2639 in the records of the Federal Energy Regulatory Commission, issued on the 26th day of December, 1973 to the Northern States Power Company of Eau Claire, Wisconsin.

(4) The amendment of license proposed and the reason why the proposed changes are necessary, are:

Applicant proposes changes in the minimum flow and allowable headwater fluctuations of the Cornell Project. The proposed new operating regime is to provide additional river flows in the Cornell tailwater for the benefit of the aquatic resources present as well as to stabilize pond level fluctuations during the spring season when many species of fish spawn in the reservoir.

(4)(i) General Background

The current license for the Cornell Project extends for a period of fifty years until November 30, 2023. The Applicant has been involved in relicensing the Holcombe Project (FERC Project No. 1982), located directly upstream from the Cornell Project, since the early to mid-1990's. The Holcombe license expired on June 30, 1998 and Applicant has been operating under annual licenses since then. Two other of Applicant's projects on the Chippewa River have operating licenses which expired recently: The Wissota Project's (FERC Project No. 2567) license expired on June 30, 2000 and the Dells Project (FERC Project No. 2670) license expired on August 31, 2000. Both projects have license applications pending with the Commission and have been operated under annual licenses since late-2000.

As a means of reaching agreement on some critical environmental issues for the three projects undergoing relicensing, a negotiated settlement was undertaken by the Applicant and interested stakeholder groups. A settlement team was established which included members from representative fish and wildlife agencies, river advocacy groups and local groups with interests on the Chippewa River. The relicensing issues to be addressed included the cumulative, river-wide impacts of all six hydro projects that are located on the lower Chippewa River. The settlement team met over a three-year period (December 1997 – December 2000) and eventually resolved all outstanding issues. The product of the negotiations was the Lower Chippewa River Settlement Agreement, filed herewith as Part A of the offer of settlement, which details all of the operational, environmental and recreational provisions that were negotiated for the hydro projects.

The most difficult aspect of the settlement negotiations was to reach agreement on the hydro projects' operating restrictions. As a means of reaching agreement on these issues, Applicant made concessions and trade-offs that affected the three projects on the lower Chippewa River that were not subject to relicensing, including the Cornell Project. This was done to address the cumulative, river-wide issues and to resolve issues for the three projects undergoing relicensing. This give-and-take enabled the settlement parties to agree on the future hydro operating conditions and to insure environmental protection in the various river areas affected by all six of the hydro projects.

As agreed upon in the Lower Chippewa River Settlement Agreement, Applicant is to amend the licenses for the three projects that are not currently subject to relicensing. Those projects include the Cornell Project and prompted the preparation of this license amendment application.

(4)(ii) License Article 13 of the Cornell License

The proposed changes to the Cornell Project operations all involve Article 13 of the December 26, 1973 FERC license order for the project which reads, in abbreviated form, as follows:

> *Article 13. 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....., or as the Commission may prescribe for the other purposes herein-before mentioned. Pending further order by the Commission on its own motion or at the request of others, after notice and opportunity for hearing, the Licensee shall:*
>
> *a) Discharge a minimum flow of 236 cfs downstream of Cornell dam for the purpose of protecting the aquatic habitat and fish spawning areas of the Chippewa River: Provided that, such flows may be modified temporarily if required by operating emergencies beyond the control of the Licensee, and for short periods for fishery management purposes upon mutual agreement between the Licensee and the State of Wisconsin Department of Natural Resources;*
>
> *b) Operate the project dam and powerhouse in such a manner that reservoir water level fluctuations will be limited to the following:*
>
> *(1) From June 1st through Labor Day during the hours of 12:00 noon to 8:00 P.M., the reservoir elevation shall be maintained and operated between elevations 1001.0 and 1002.0 feet msl.*
>
> *(2) At all other times, the reservoir elevation will be maintained and operated between elevations 1000.0 and 1002.0 feet msl.*

(4)(iii) Proposed Changes to License Article 13 of the Cornell License

Applicant proposes modifications to Article 13 of the existing license to incorporate the higher minimum flow and the reduced headwater fluctuation limits that were agreed upon in the Lower Chippewa River Settlement Agreement. The new language proposed by the Applicant for Article 13 follows (bolded text denotes the proposed modification):

> *Article 13. 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....., or as the Commission may*

prescribe for the other purposes herein-before mentioned. Pending further order by the Commission on its own motion or at the request of others, after notice and opportunity for hearing, the Licensee shall:

*a) Discharge a minimum flow of **400** cfs downstream of Cornell dam for the purpose of protecting the aquatic habitat and fish spawning areas of the Chippewa River: Provided that, such flows may be modified temporarily if required by operating emergencies beyond the control of the Licensee, and for short periods for fishery management purposes upon mutual agreement between the Licensee and the State of Wisconsin Department of Natural Resources;*

b) Operate the project dam and powerhouse in such a manner that reservoir water level fluctuations will be limited to the following:

(1) From April 1 through June 7, the flowage shall be maintained within 0.5 feet of full pool (elevation 1001.5 to 1002.0 msl).

*(2) From June **8th** through Labor Day during the hours of 12:00 noon to 8:00 P.M., the reservoir elevation shall be maintained and operated between elevations 1001.0 and 1002.0 feet msl.*

(3) At all other times, the reservoir elevation will be maintained and operated between elevations 1000.0 and 1002.0 feet msl.

(4)(iv) Rationale for Modifying Minimum Flows and Headwater Limits

Minimum flow. An Instream Flow Incremental Methodology (IFIM) time series analysis was conducted by licensee's consultant on the Cornell tailwater in 1996 and a report was finalized in early-1997 (filed with the Commission on February 20, 1997). The IFIM study quantified the effects of the Holcombe Project's operation, and any reasonable operational alternatives, on the duration of aquatic habitat in the first free-flowing river segment downstream from the Holcombe Project, which is the 1-mile segment below the Cornell Project (letter from F. Springer to A. Schuster, dated November 21, 1995). The report included operational recommendations that would improve conditions for aquatic organisms in the Cornell tailwater. Increasing the minimum flow from the Cornell Project was one of the recommendations that would improve the downstream aquatic environment.

The higher minimum flow of 400 cfs that Applicant has agreed to release from the Cornell Project in the Settlement Agreement provides approximately 7% more wetted area and about seven times more spawning habitat for the principle sportfish, walleye, than the current 236 cfs minimum flow. Of the species and lifestages evaluated in the IFIM study, juvenile and adult channel catfish and walleye spawning were most benefited. The higher minimum flow also provides increased wetted useable area (WUA) for invertebrates and all other aquatic organisms throughout the year. There may also be an incremental reduction in the potential for fish stranding along the

margins of the river as flows are reduced to the minimum from higher peaking flows and improved recreational boating opportunities during the low flow period of the peaking cycle.

Headwater Fluctuation Limits. The proposed reduction in reservoir headwater fluctuation limits during the springtime period (April 1 – June 7) is one-fourth the historic operating range and should enhance spawning conditions for fish during their primary reproduction season. The existing license allows for a headwater fluctuation range of 2.0 ft. during the spring which may impact the spawning success of certain fish species that utilize the flowage shorelines for spawning (i.e., northern pike, centrarchids). The reduced headwater fluctuation will minimize the disturbances to spawning fish, reduce the potential for stranding and desiccation of their eggs, and provide increased shallow water nursery habitat and predator escape cover for larval fish.

(b) Required Exhibits For Capacity Related Amendment

Modification of the existing minimum flow and headwater limits at the Cornell Project will not alter the installed generation capacity of the project; therefore, there are no specific exhibits required.

(c) Required Exhibits For Non-Capacity Related Amendment

Modification of the existing minimum flow and headwater restrictions at the Cornell Project will not require the altering of any of the project structures. Applicant is unaware of any other exhibits that are required to be modified or amended for this application.

(d) Agency Consultation

Pursuant to 18 CFR 4.38(a)(5), an Applicant for an amendment application is required to consult with relevant Federal, State and interstate resource agencies and any Indian tribe that may be affected by the proposed project.

Xcel Energy conducted full and open consultation with all interested parties on these matters during the three-year negotiated settlement process and has the full support of all involved parties for this license amendment application, as evidenced by the signed Settlement Agreement.

Xcel Energy has also mailed this application to all applicable organizations (transmittal letter and mailing list attached) requesting comments on the proposed project. If any comments are received, they will be filed with the Commission as a supplement to this application.

LOWER CHIPPEWA RIVER

Part A

Settlement Agreement

Moicomee Hydro

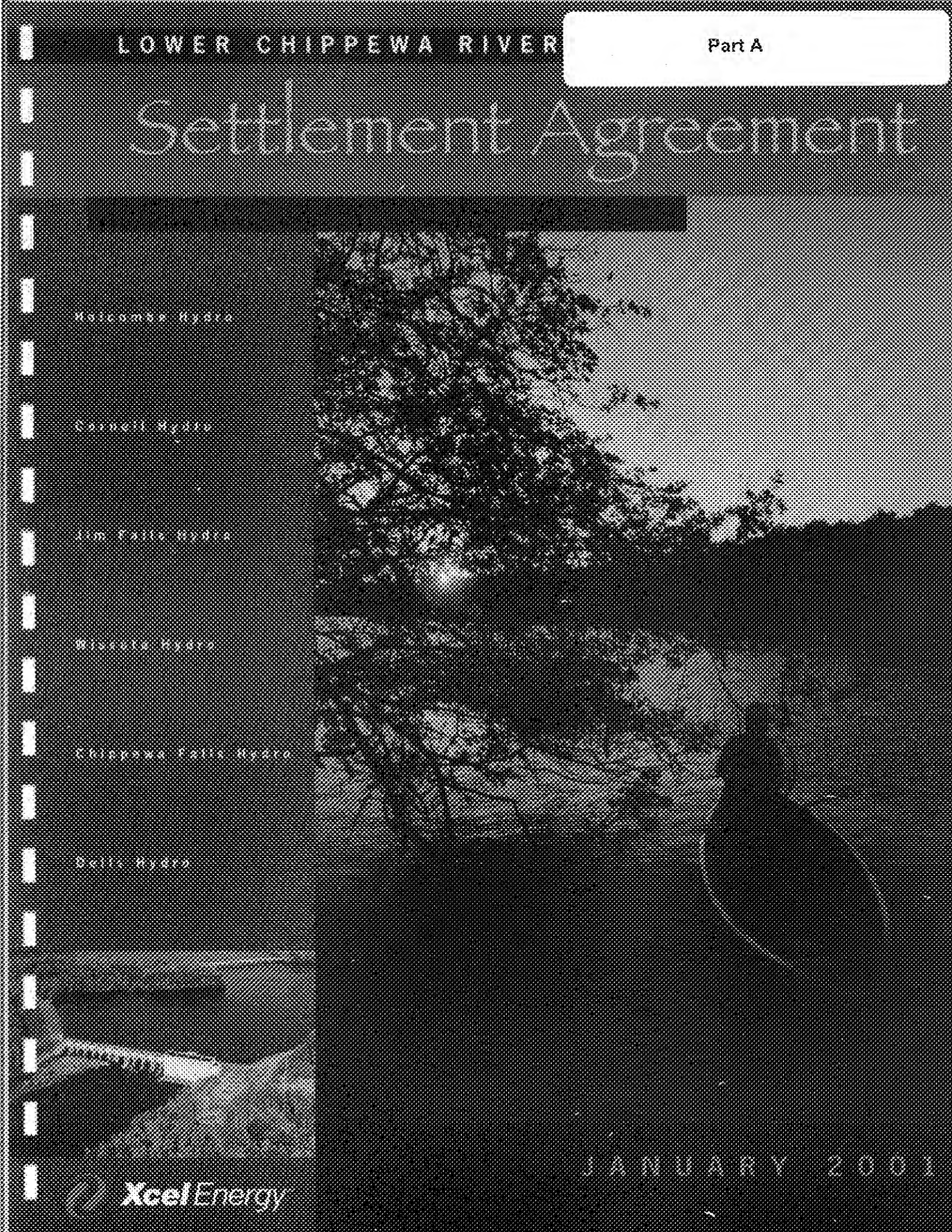
Cornell Hydro

Jim Falls Hydro

Brackett Hydro

Chippewa Falls Hydro

Dells Hydro



Xcel Energy

JANUARY 2001

LOWER CHIPPEWA RIVER SETTLEMENT AGREEMENT

INCLUSIVE OF FERC HYDROELECTRIC PROJECTS:

PROJECT NO. 1982	HOLCOMBE PROJECT
PROJECT NO. 2639	CORNELL PROJECT
PROJECT NO. 2491	JIM FALLS PROJECT
PROJECT NO. 2567	WISSOTA PROJECT
PROJECT NO. 2440	CHIPPEWA FALLS PROJECT
PROJECT NO. 2670	DELLS PROJECT

EXECUTED BY:

NORTHERN STATES POWER COMPANY – WISCONSIN
CITY OF EAU CLAIRE, WISCONSIN
WISCONSIN DEPARTMENT OF NATURAL RESOURCES
U.S. FISH AND WILDLIFE SERVICE
NATIONAL PARK SERVICE
RIVER ALLIANCE OF WISCONSIN
WISCONSIN CONSERVATION CONGRESS
CHIPPEWA ROD & GUN CLUB
LAKE HOLCOMBE IMPROVEMENT ASSOCIATION
LAKE WISSOTA IMPROVEMENT ASSOCIATION
LOWER CHIPPEWA RESTORATION COALITION, INC.

January 17, 2001

SIGNATORIES:

NORTHERN STATES POWER COMPANY - WI

Jerome L. Larsen 1/17/01
Jerome L. Larsen — Date
President and CEO

CHIPPEWA ROD & GUN CLUB

Phillip V. Cardinal 1-17-01
Phillip Cardinal — Date
Club Representative

CITY OF EAU CLAIRE, WI

Donald Norrell 1-17-00
Donald Norrell — Date
City Manager

LAKE HOLCOMBE IMPROVEMENT ASSOC.

Brian E. Guthman 1-17-01
Brian Guthman — Date
President

WISCONSIN DEPARTMENT OF NATURAL RESOURCES

George Meyer 1/17/01
George E. Meyer — Date
Secretary

LAKE WISSOTA IMPROVEMENT ASSOC.

Charles R. Card 1/17/01
Charles Card — Date
Association Representative

UNITED STATES DEPARTMENT OF INTERIOR – FISH AND WILDLIFE SERVICE

1/17/01
William Hartwig — Date
Regional Director

LOWER CHIPPEWA RESTORATION COALITION, INC.

John Lowe — Date
Coalition Representative

UNITED STATES DEPARTMENT OF INTERIOR – NATIONAL PARK SERVICE

Samuel N Stokes 1/17/01
for William Schenk — Date
Regional Director

WISCONSIN CONSERVATION CONGRESS

William Herrmann 1/17/01
William Herrmann — Date
Congress Representative

RIVER ALLIANCE OF WISCONSIN

1/17/01
Todd Ambs — Date
Executive Director

EXECUTIVE SUMMARY

Northern States Power Company-Wisconsin (NSPW; doing business as Xcel Energy) operates six hydroelectric projects on the Lower Chippewa River in west-central Wisconsin. In upstream to downstream order they are the Holcombe, Cornell, Jim Falls, Wissota, Chippewa Falls and Dells projects (Figure A-1). Each project is licensed by the Federal Energy Regulatory Commission (FERC). Three of the projects (Holcombe, Wissota and Dells) must be relicensed, while the others each have at least 20 years remaining on their existing licenses. The Dells Dam and powerhouse 'A' are owned by the City of Eau Claire, who is co-licensee for that project.

Three years of negotiations have led to a settlement agreement between NSPW and other parties to address and resolve identified power issues (generation and capacity) and non-power issues (natural resource, water quality and quantity, recreation, etc.) for the six Chippewa River hydro projects. All interested federal and state agencies, local governments and organizations were invited to participate in the settlement process. Eleven stakeholder groups negotiated and endorsed the settlement agreement: NSPW, City of Eau Claire, US Fish and Wildlife Service, National Park Service, River Alliance of Wisconsin, Wisconsin Conservation Congress, Chippewa Rod and Gun Club, Lake Holcombe Improvement Association, Lake Wissota Improvement Association, Lower Chippewa River Restoration Coalition, Inc., and Wisconsin Department of Natural Resources (WDNR).

The settlement agreement is to be filed with the FERC as an Offer of Settlement requesting that the settlement's provisions become the terms and conditions of new FERC licenses for the three projects undergoing relicensing. The WDNR has agreed to grant water quality certification, pursuant to Section 401 of the Federal Water Pollution Control Act (required for the FERC to issue new licenses), consistent with the terms of the settlement.

NSPW has historically operated the hydro projects in a peaking mode with minimum flow provisions, where water is generally stored in the reservoirs at night and weekends and then released during weekdays to generate power at times of peak energy demand. The peaking operations have historically caused unnatural, daily fluctuations of water levels in the project reservoirs and the dams' tailwaters. NSPW's main interest entering the settlement process was to retain its ability to continue peaking in order to protect the capacity rating and on-peak energy production of the projects. All other parties were mainly interested in modifying operations to create a more natural, stable water level and flow regime. Other interests included recreation facility improvements, recreational flow enhancements, fisheries protection (upstream and downstream passage and protection from turbine entrainment), aquatic habitat enhancements, NSPW lands protection and management for public use, water quality protection, endangered/ threatened species protection, future dam responsibility, and control of exotic species.

Although negotiations primarily involved the three projects undergoing relicensing, the parties agreed to address natural resource and recreational issues identified at the other three projects as well. NSPW has agreed to request amendments to the existing

FERC licenses for the Cornell, Jim Falls and Chippewa Falls projects to accommodate the negotiated operational changes that are described in the settlement agreement for those projects.

It is proposed that the Holcombe, Wissota and Dells licenses be issued to expire in year 2033 to more closely align with the expiration dates for two of the other projects' licenses, thus allowing future relicensing reviews to be more systemic and comprehensive. An implementation team (IT), made-up of settlement team and ex-officio members, will guide the implementation efforts throughout the term of the new licenses and amendments.

The following summary identifies the major hydro operational provisions of the settlement and shows the existing hydro operational or environmental conditions compared to the conditions of the settlement.

NSPW HYDRO OPERATIONS

	Existing License Condition or Voluntary Practice	**Settlement Condition**
Reservoirs (all 6 or as noted)		
a. Normal daily pool levels	1-2.5' operating range	0.5 ' during spring fish spawning (Jim Falls 0.8'; Dells 1.0'); rest of year 1-2'.
b. Late-winter drawdowns of Lk Holcombe and Wissota	Up to 10' and 15', respectively	Maximum 3.0' for one week just before spring run-off.
c. Winter pulsing at Holcombe to maintain DO levels	2-3' weekly pulsing range in winter to maintain DO levels	Continue
Tailwater minimum flows		
a. Cornell (1 mile)	236 cfs (cubic feet per second)	400 cfs year round
b. Jim Falls (0.8 mile)	20 cfs winter; 240 cfs rest of year	850 cfs during spring fish spawning; 240 cfs rest of year, except for four 650 cfs releases for whitewater boating.
c. Chippewa Falls (6.5 miles)	1,000 cfs spring fish spawning; 785 rest of year	1,000 cfs year round
d. Dells (61 miles)	500 cfs (full generation flow is 5,600 cfs)	Dells will re-regulate incoming "peaking" flow regime to dampen fluctuations, with a min/max range based on inflow (see Table 1). Minimum flow will always be the lesser of 1,800 cfs or inflow, except for emergencies and ~3% of time per year at NSPW's discretion to meet "capacity rating" criteria. Also, when generation is reduced by more than 50% within the allowed flow range, discharge shall be ramped down.
(Holcombe and Wissota projects have no free-flowing tailwaters and no minimum flow requirement)		
Low Flow Contingency Plan	None	In place
Emergency Response Plan	None	In place
Operations Testing Plan	None	In place
Compliance Monitoring Plan	None	In place
Drawdown Management Plan	None	In place

NATURAL RESOURCE MANAGEMENT

In addition to the hydro operational changes, the settlement provides for the establishment of the *Chippewa River Protection and Restoration Fund* (Table 2), an interest bearing account, that is to be funded by NSPW over the term of the new FERC licenses. The majority of this fund will be segregated in a sub-account identified as the *Fish Protection Fund* (FPF) that will total $3.25 million to be deposited in three installments over 10 years: $1.25 million in year one and $1.0 million at the five year and ten year anniversaries of the settlement's effective date (all monies are in year 2000 dollars adjusted to the Consumers Price Index). The intent of the FPF is to provide money for the design and installation of fish turbine entrainment protection devices or measures at the Chippewa River hydro project sites. A second sub-account, known as the *Natural Resource Fund,* totaling $500,000, will be established to fund assorted impact mitigation, protection or restoration measures and studies along the lower Chippewa River. All money for this fund is to be deposited during the first year of the new FERC license(s) and will be combined in a general fund that will be directed by the settlement IT. In addition, several natural resource management, land management, and recreational facility improvement plans were developed as part of the settlement and shall be implemented after the settlement becomes effective.

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1.0 BACKGROUND INFORMATION

1.1 THE APPLICANT AND THE HYDROELECTRIC PROJECTS

The Northern States Power Company – Wisconsin (NSPW; doing business as Xcel Energy) operates the six below listed hydroelectric projects on the lower Chippewa River in west-central Wisconsin that are licensed by the Federal Energy Regulatory Commission (FERC):

Project Name	FERC Project No.
Holcombe	1982
Cornell	2639
Jim Falls	2491
Wissota	2567
Chippewa Falls	2440
Dells	2670

The NSPW owns all of the projects, except the Dells Project which is jointly owned with the City of Eau Claire, WI. The Dells Dam and Powerhouse A are owned by the City and leased to NSPW for operation while NSPW owns Powerhouse B and operates its electric generating equipment. Thus, the two entities are co-licensees for the Dells Project. The NSPW has license renewal applications pending with the FERC for the Holcombe, Wissota and Dells projects while the other three projects have a minimum of 23 years remaining on their FERC license terms.

A map of the lower Chippewa River Basin identifying the location of the six hydro projects is presented in Appendix A.

1.2 THE SETTLEMENT

This offer of settlement, to be submitted to the FERC pursuant to 18 CFR 385.602, primarily concerns the three lower Chippewa River hydro projects that have license renewal applications pending with the FERC (Holcombe, Wissota and Dells). Some resource issues involving the other three Chippewa River projects were identified through the settlement process; these issues were concurrently negotiated and are included herewith as part of the settlement mitigation activities. License amendment applications that will incorporate the newly negotiated operational provisions into the FERC licenses for the Cornell, Jim Falls and Chippewa Falls projects shall be filed with the FERC concurrent with the filing of this settlement or within 60 days thereafter.

The NSPW invited all known groups and organizations with an interest in the lower Chippewa River to participate in the settlement process but many groups either did not have the time, resources or interest to stay actively involved. Thus, the list of participants was narrowed to the following 11 stakeholders who negotiated the settlement: NSPW, City of Eau Claire (City), Wisconsin Department of Natural

Resources (WDNR), U.S. Fish and Wildlife Service (FWS), National Park Service (Park Service), River Alliance of Wisconsin (River Alliance), Wisconsin Conservation Congress (Conservation Congress), Chippewa Rod & Gun Club, Lake Holcombe Improvement Association (LHIA), Lake Wissota Improvement Association (LWIA), and the Lower Chippewa Restoration Coalition, Inc. (LCRC). The Army Corps of Engineers (ACOE) also participated in the negotiations as an interested party but is not a signatory to the final agreement.

This settlement was negotiated over a three year period, beginning in December 1997, after NSPW had filed license renewal applications for the Holcombe, Wissota and Dells projects with the FERC pursuant to the traditional three-stage relicensing process (18 CFR 4.38). The settlement was initiated then because NSPW and the resource agencies believed that a negotiated settlement would be the most effective way to reach agreement on some key unresolved environmental issues. Approximately monthly meetings of the settlement team and interim meetings of assorted committees were used to develop alternative mitigation strategies and proposals, and to negotiate the issues. A compilation of the issues that were addressed and associated information used during the settlement process are included in the attached matrix tables (Appendix B). The latter were used for tracking purposes during negotiations and have been provided here as background information only. They may be useful for the FERC's settlement and environmental review process, but due to their incompleteness, they must not supercede any stipulations of this settlement document.

The stakeholders mutually determined that an Applicant Prepared Environmental Assessment (APEA) would not be undertaken as part of this settlement. It was decided that the appropriate course of action would be to relegate the environmental review process to the FERC using information presented in Exhibit E of the pending license renewal applications for the Holcombe, Wissota and Dells projects, as well as information provided in this settlement document.

2.0 GENERAL PROVISIONS

2.1 DEFINITIONS AND ABBREVIATIONS USED IN THIS SETTLEMENT

(a) *Adaptive Management* means a process that allows for change in resource protection in response to new scientific information or policy objectives as set by new laws or regulations – federal or state.

(b) *CFS* means cubic feet per second and is the measure frequently used to quantify river flow and the volume of water that passes through hydro turbines during the electric generation cycle.

(c) *Consensus* means that each party either accepts or does not oppose adoption of a resolution (i.e., even though some parties may not fully agree with all of the resolution's provisions, they are willing to accede to the opinion of the majority). An affirmative objection by any one party will prevent a consensus.

(d) *Consumer Price Index (CPI)* is the measure of change in consumer prices as determined by a monthly survey of the U.S. Bureau of Labor Statistics. Among the CPI components are the costs of housing, food, transportation, and electricity.

(e) *Day* for operational purposes means the 24 hour period from midnight to midnight.

(f) *DO* means dissolved oxygen.

(g) *FERC* means the Federal Energy Regulatory Commission.

(h) *Implementation Team* or *IT* means the parties that are referenced in Section 8.1.1 that shall be responsible for the future implementation of this settlement.

(i) *Interested party* means the Army Corps of Engineers who participated in the settlement negotiations and helped develop the settlement's provisions but has not formally endorsed the settlement agreement.

(j) *Licensee* is Northern States Power Company – Wisconsin (NSPW), unless otherwise specified.

(k) *Maximum Flow* means the highest allowable instantaneous flow that is to be discharged downstream through the hydro turbines and/or dam spill gates from one of the hydropower projects covered by this settlement, as measured at a predetermined monitoring point.

(l) *Minimum Flow* means the lowest allowable instantaneous flow that is to be discharged downstream through the hydro turbines and/or dam spill gates from one of the hydropower projects covered by this settlement, as measured at a predetermined monitoring point.

(m) *Non-power Issue(s)* means the environmental, recreational, land use and management, and aesthetic issues that were identified and discussed for this settlement.

(n) *Northern States Power Company – Wisconsin* or *NSPW* (doing business as Xcel Energy) means the Company who owns and/or operates the hydroelectric projects that are the subject of this settlement and who is a subsidiary of Xcel Energy, Inc., a Minnesota corporation, formerly known as the Northern States Power Company.

(o) *Party or parties* means the *stakeholder(s)* of this settlement who are defined below.

(p) *Peaking* means the practice of electric utility companies to purposely start and operate electric generating equipment during the daily high electric demand periods and to reduce generation during the low demand periods to match the load of their customers.

(q) *Power Issues* means the hydroelectric generation and capacity issues that were addressed in this settlement.

(r) *Projects* means the six lower Chippewa River hydroelectric projects that are the subject of this settlement: In downstream order they are the Holcombe, Cornell, Jim Falls, Wissota, Chippewa Falls and Dells projects.

(s) *Re-regulate* or *Re-regulation* means to operate a water storage reservoir so that peaking-induced stream flow fluctuations received into the reservoir are moderated, using the reservoir's storage capacity, when discharged downstream.

(t) *Resource agency or agencies* means the Wisconsin Department of Natural Resources, the U.S. Fish and Wildlife Service, and the National Park Service.

(u) *Section 18 of the Federal Power Act* means the section of the Federal Power Act that reserves the authority of the Secretary of the Department of the Interior to prescribe fishways.

(v) *Settlement* means this settlement agreement and all its associated provisions and plans.

(w) *Signatories* means those 11 stakeholders who negotiated this settlement, who signed this document as signatories, and who are legally bound by the settlement.

(x) *Stakeholders* means those11 parties who negotiated this settlement: NSPW, City of Eau Claire (City), Wisconsin Department of Natural Resources (WDNR), U.S. Fish and Wildlife Service (FWS), National Park Service (Park Service), River Alliance of Wisconsin (River Alliance), Wisconsin Conservation Congress (Conservation Congress), Chippewa Rod & Gun Club, Lake Holcombe Improvement Association (LHIA), Lake Wissota Improvement Association (LWIA), and the Lower Chippewa Restoration Coalition, Inc. (LCRC).

(y) *401 Water Quality Certification* means the water quality certification that must be obtained from the WDNR for a water power project pursuant to Section 401(a)(1) of the Federal Water Pollution Control Act, as amended.

2.2 THE OFFER OF SETTLEMENT

This settlement is entered into by the stakeholders, pursuant to the FERC regulation 18 CFR 385.602. The settlement provides resolution for all issues that were identified for the three hydro projects subject to FERC relicensing at the time of the settlement including: power generation and capacity; water level and flow fluctuations associated with project operations; protection and enhancement of fish populations and other forms of aquatic life; lands management; water quality monitoring; enhanced flows for recreational boating; recreational facility enhancements; management of endangered, threatened and sensitive species; exotic/nuisance species control; future dam responsibility for the projects; and other matters.

2.3 EFFECT OF OFFER OF SETTLEMENT

2.3.1 The Negotiated Settlement

This agreement is made upon the express understanding that it constitutes a negotiated settlement of issues in the above captioned proceedings, and no party to the settlement shall be deemed to have approved, admitted, accepted, agreed to or otherwise consented to any operation, management, valuation or other principle underlying or supposed to underlie any of the matters herein, except as expressly provided herein. Further, this settlement shall not be used as a precedent or as an admission with regard to any issue dealt with in the settlement.

2.3.2 The Settlement and License Conditions

The stakeholders agree not to propose, mandate, support or otherwise communicate to the FERC any license conditions other than those provided for herein, or to oppose the FERC license articles which incorporate the provisions described in this settlement, except for those that may be prescribed pursuant to Section 18 of the Federal Power Act (the Department of Interior's fishway prescription authority).

The above shall not preclude a party from seeking rehearing, pursuant to 18 CFR 385.713, for modifications or conditions to the settlement that may be imposed by the FERC in license articles for the Holcombe, Wissota or Dells projects, or from legally seeking relief in the courts for said modifications or conditions.

2.3.3 Settlement's Effective Date

This settlement shall become effective ("Effective Date") on the first business day after the earliest of the following events to occur:

(A) Issuance by the FERC of final orders that approve this settlement without additions, omissions or modifications, and that incorporate the settlement's provisions, as herein stated, into individual new licenses for the Holcombe, Wissota and Dells projects; or

(B) Thirty (30) days following the issuance by the FERC of final orders that approve this settlement with additions, omissions or modification, and that incorporate the settlement's provisions into individual new licenses for the Holcombe, Wissota and Dells projects, unless at least one party indicates to the other parties in writing, within said 30 day period, its objection to the addition, omission, or modification. In the absence of any such objection, this settlement shall be considered modified to conform to the terms of those FERC orders; or

(C) Upon written agreement between the parties regarding any additions, omissions, or modifications made by the FERC to the settlement agreement, provided that such agreement has the consensus of all settlement parties and is reached within one hundred twenty (120) days following the issuance by the FERC of orders that approve this settlement and grant new licenses for the Holcombe, Wissota and Dells projects. For clarification, this paragraph is intended to provide a mechanism that will allow the settlement to be implemented, providing that there is consensus of the settlement parties, while an appeal, rehearing or court action of one or more unresolved license articles/issues is pending.

If agreement cannot be reached at the end of the 120-day period referenced in paragraph (C) above for one or more unresolved license articles/issues, the objecting party may withdraw from the settlement, as provided in Section 2.4.1, by notifying the other parties in writing within 30 days after the expiration of said 120-day period. Such a withdrawal shall not delay the settlement from becoming effective, unless the withdrawal is by the NSPW, the City of Eau Claire (for the Dells Project only), the WDNR or the FWS, in which case options outside of this settlement (legal or other remedies) may be pursued to resolve any contested issues.

The terms of this settlement shall continue in effect, subject to the FERC's reserved authority under the licenses to require modifications, until the earlier of the expiration of a new FERC license (plus the term of an annual license) or the effective date of any FERC order approving surrender of a project under Section 6 of the Federal Power Act.

2.3.4 FERC Jurisdiction

Should the FERC issue final license orders that do not include all of the provisions of this settlement because the FERC has determined that it lacks jurisdiction over those issues, the parties agree that they will be bound by the conditions of the entire

settlement. With respect to those conditions over which the FERC does not have jurisdiction, the parties agree that the settlement shall be enforceable in a court of appropriate jurisdiction.

2.3.5 Balancing of Issues

All parties concur that the settlement is a compromise agreement that balances the non-power and power issues associated with relicensing the projects by the FERC. The parties agree that, if requested, they shall support this settlement as balancing the power and non-power issues before, but not limited to, the Public Service Commission of Wisconsin (PSCW) and the FERC.

2.3.6 Capacity Modifications

NSPW may pursue life extension activities for any of the projects subject to this settlement, including the proposed project rehabilitation activities that are identified in the pending FERC license application for the Dells Project, without affecting the provisions of this settlement. Any future capacity additions that NSPW may propose for the projects, other than the afore mentioned Dells Project rehabilitation, shall entail a license amendment application that NSPW shall complete in accordance with then applicable FERC regulations and rules. If NSPW proposes capacity additions for the Dells Project, other than those identified in the pending FERC license application, NSPW agrees that all parties shall have the opportunity to modify their position in the settlement relative to the Dells Project's flow regime. NSPW shall also consult with the agencies at the time of rehabilitation of the Dells Project regarding the addition of fish friendly turbines and other environmental resource issues such as the potential effect of project rehabilitation on land or aquatic resources related to construction activities.

2.3.7 Implementation Schedule

NSPW shall prepare a draft schedule for implementing the studies, plans and actions identified in this settlement. The schedule shall specify an initiation date, a progress reporting and completion date for each study, plan, or action item, and milestones for major activities. A draft schedule shall be submitted to the Implementation Team (IT) and ex-officio advisory members for review in accordance with Section 8.0 not later than 120 days after execution of this settlement by the parties. Upon completion of the review, the schedule shall be submitted to the FERC for approval.

A tentative schedule for activities that NSPW has agreed to implement during the settlement follows:

- by January 31, 2000 - file signed Settlement Agreement with the FERC.
- by April 1, 2001 - prepare operations testing plan and initiate testing; file Cornell, Jim Falls and Chippewa Falls license amendment applications with the FERC.
- by June 1, 2001 or sooner - convene initial meeting of IT; submit draft Implementation Schedule for IT review.
- by August 1, 2001 - file settlement agreement implementation schedule with the FERC.

- by November 20, 2001- implement new winter minimum flow regime in the Jim Falls bypass channel.
- ~ January 1, 2002 to January 1, 2003 - It is anticipated that the FERC will issue new licenses and license amendments; operational changes identified in section 3.0 of the settlement are to be immediately implemented upon the effective date of the settlement.
  - ▸ Within 2 months of the effective date of this settlement, the IT meets to select the financial instrument(s) for investing funds.
  - ▸ Within 6 months of the effective date of this settlement, NSPW makes initial deposits into fund sub-accounts ($500,000 and $1.25 million); the IT may immediately initiate expenditures and implement actions listed in the Natural Resource Fund account.
  - ▸ Within 12 months of the effective date of this settlement, NSPW is to file with FERC the Fund Investment Plan and Annual Accounting Procedure.

Unless otherwise stated herein, all hydro operational provisions addressed in Section 3.0 shall be implemented by NSPW immediately upon the effective date of this settlement, and as to the Jim Falls, Cornell and Chippewa Falls Projects, as of the date the FERC issues license amendments for each of these projects.

2.4 PARTIES BOUND

2.4.1 General

This settlement shall apply to and be binding on the signatories of this document and their successors and assigns; however, no party shall be bound by any part of this document unless the settlement is made effective as provided in Section 2.3.3. The sole concurring party is not legally bound by the provisions of this settlement although that party fully agrees with the contents of this document.

The withdrawal of a party after execution of this settlement, other than withdrawal by NSPW, WDNR or the FWS, does not void this settlement as to the remaining parties. Furthermore, the withdrawing party's action shall be done without prejudice and shall not jeopardize the interests of any remaining parties. For NSPW, the WDNR and the FWS, withdrawal shall constitute a breach of contract, except as cited in Section 2.4.2. Each signatory to this settlement certifies that he or she is authorized to execute this settlement and legally bind the party he or she represents.

2.4.2 Section 401 Water Quality Certification

(A) If, within 180 days from the signing date of this settlement, the WDNR issues water quality certificates, pursuant to Section 401 of the Federal Water Pollution Control Act, for each of the Holcombe, Wissota and Dells projects, that conform with the provisions of Sections 3.0 and 4.0 of this settlement, NSPW and the other stakeholders agree not to contest those certificates.

(B) If the WDNR issues a Section 401 water quality certificate for either the Holcombe, Wissota or Dells project that does not conform with the provisions of Sections 3.0 and 4.0 of this settlement, any party may withdraw from this settlement and need not comply with its terms, provided that such withdrawal occurs within 30 days from the first business day after the date on which the non-conforming water quality certificate is issued for either of the three projects.

(C) If the WDNR does not issue Section 401 water quality certificates for each of the Holcombe, Wissota and Dells projects within 180 days from the signing date of this settlement, any party may withdraw from this settlement and need not comply with its terms, provided that no more than 30 days have elapsed from the end of said 180 day period.

2.4.3 LOCAL, STATE AND FEDERAL REGULATORY REQUIREMENTS

The agreements in this settlement do not relieve NSPW of responsibility for compliance with all applicable federal, state and local regulatory requirements and for obtaining any permits or approvals that may be required from such jurisdictions for implementation of this settlement.

2.4.4 TERM OF SETTLEMENT

The parties agree that it would be advantageous for future relicensing proceedings to have common or similar license expiration dates for all of the Chippewa River hydro projects. The parties recognize, however, that the existing 50-year license for the Cornell Project is not synchronized with the license expiration dates for the other five projects and it is impossible at this time to rectify that difference. Therefore, the parties agree that the term of this settlement should extend to September 30, 2033 which is the license expiration date for the Jim Falls Project and is nearly the same as the January 13, 2034 license expiration date for the Chippewa Falls Project. Furthermore, the parties recommend that the FERC establish September 30, 2033 as the expiration date for the new licenses for the Holcombe, Wissota and Dells projects. This action will closely align the license expiration dates for five of the lower Chippewa River projects.

3.0 PROJECT OPERATIONS AND COMPLIANCE

The operational modifications to the Chippewa River hydro projects that are described in the following sections should result in a flow regime that more closely approximates the natural (unregulated) hydrologic regime of the Chippewa River and should improve habitat conditions for all aquatic life as well as public recreational opportunities.

NSPW shall be bound by all of the operational requirements that are cited in the following sections for the Holcombe, Wissota and Dells projects upon the effective date of this settlement. Furthermore, NSPW has voluntarily agreed to file license amendment applications with the FERC to incorporate the applicable provisions of this settlement into the licenses of the Cornell, Jim Falls and Chippewa Falls projects

concurrent with the filing of this settlement agreement, or within 60 days thereafter. The FWS and the WDNR agree to file letters in support of the license amendments as part of NSPW's filing to the FERC. NSPW shall be bound by the following operational requirements applicable to the Cornell, Jim Falls and Chippewa Falls projects on the respective dates that the FERC approves NSPW's license amendment applications for each such project, unless NSPW has voluntarily agreed to an earlier initiation date for the applicable provisions, as stated herein.

3.1 HYDRO PLANT OPERATIONS

3.1.1 Holcombe Project

3.1.1.1 Operating Parameters

NSPW may operate the Holcombe Project in a daily peaking mode to the extent that reservoir water level restrictions for Lake Holcombe, as defined below, and operational provisions for the Cornell Project (Section 3.1.2) allow.

3.1.1.2 Reservoir Elevation

NSPW shall maintain the surface water elevation[1] of Lake Holcombe within the following seasonal limits:

- ~ April 1[2] to June 7 — Elev. 1044.5 to 1045.0 ft
- June 8 to ~ January 1 — Elev. 1044.0 to 1045.0 ft
- ~ January 2[3] to ~March 31 — Elev. 1042.0 to 1045.0 ft

3.1.1.3 Annual Late-Winter Reservoir Drawdowns

To protect and enhance aquatic life in Lake Holcombe, NSPW agrees to discontinue the annual late-winter drawdowns of the lake, except that the surface water elevation may be lowered 3 ft for a maximum of seven consecutive days (not to exceed 168 hrs) immediately before spring run-off, as described in Section 3.1.1.2. During this seven-day period, the rate of water withdrawal from the lake shall not exceed one foot per day, and the days of water withdrawal and refill of the lake shall be counted as part of the

[1] All elevations referenced in this settlement document are National Geodetic Vertical Datum (NGVD) unless otherwise specified.

[2] This is a target date that may be earlier or later in the year as determined by the end of Spring runoff. Spring runoff for the Holcombe Project shall be defined as the first time after March 1 each year that stream flow exceeds the full hydraulic capacity of the Holcombe plant's three hydro turbines and one or more of the Holcombe Dam's spillway gates is opened to release excess flow. The exact annual date to implement this provision for all of the Chippewa River flowages discussed in this Settlement may be changed based on consultation and mutual agreement between NSPW and the WDNR.

[3] This is a target date to start what is referred to as "winter pulsing" or fluctuating the water level 2 to 3 ft on a weekly basis to enhance dissolved oxygen conditions and fish survival in backwater bays. The exact start date for winter pulsing may vary (±15 days) among years and shall be determined by the formation of at least six inches of ice cover on the backwater bays. The WDNR reserves its right to review and to have NSPW modify or discontinue this practice in the future.

seven day drawdown period. This provision shall not be affected by any WDNR action to have NSPW modify or discontinue the winter pulsing of Lake Holcombe that is described in Section 3.1.1.2, footnote 3.

3.1.2 Cornell Project

3.1.2.1 Minimum Flow

NSPW may operate the Cornell Project in a daily peaking mode providing that an instantaneous minimum flow of 400 cubic feet per second (cfs) shall be released from the project at all times.

3.1.2.2 Reservoir Elevation

NSPW shall maintain the surface water elevation of the Cornell Flowage in accordance with Article 13 of the current FERC license,[4] as issued December 26, 1973, except for the following time period: From April 1 to June 7, the flowage shall be maintained within 0.5 ft of full pool (elevation 1001.5 to 1002.0 ft) to enhance fish spawning.

3.1.3 Jim Falls Project

3.1.3.1 Minimum Flow

NSPW shall institute year-round operation of the minimum flow unit (MFU), or spill a volume of water equivalent to the minimum flow of 240 cfs through a spill gate, at the Jim Falls Project's main spillway dam so that an instantaneous minimum flow of 240 cfs is released into the bypass river channel at all times. NSPW has voluntarily agreed to implement the provisions of this paragraph no later than November 30, 2001.

In addition, throughout the months of April and May, NSPW shall augment the minimum flow that is released from the MFU (240 cfs) with spillway gate releases so that flows in the bypass channel equal or exceed 850 cfs at all times. This shall be done to enhance the spawning of lake sturgeon and other riverine fishes.

Supplemental flows to provide whitewater recreational opportunities shall also be released into the bypass river channel by NSPW each summer. The flows are to be released twice during the months of July and August as described in Section 6.2 and as specified in the *Recreational Flow Release Plan For Whitewater Boating In The Jim Falls Bypass River Channel* (Appendix C).

3.1.3.2 Reservoir Elevation

NSPW shall maintain the water surface elevation of the Jim Falls Flowage (Old Abe Lake) in accordance with the current FERC license (elev. 951.2 to 953.2 ft) as issued

[4]The current FERC license stipulates that the Cornell Flowage shall be maintained as follows: From June 1 through Labor Day during the hours of 12:00 noon to 8:00 p.m., the reservoir elevation shall be maintained and operated between elevations 1001 and 1002 ft mean sea level; at all other times, the reservoir elevation will be maintained and operated between elevations 1000 and 1002 ft mean sea level.

July 24, 1984, except for the following time: From April 1 to June 7, the flowage shall be maintained within 0.80 ft of full pool (elev. 952.4 to 953.2 ft) to enhance fish spawning.

3.1.4 Wissota Project

3.1.4.1 Operating Parameters

NSPW may operate the Wissota Project in a daily peaking mode, provided that such operation complies with the reservoir water level restrictions for Lake Wissota, as defined below, and the operational provisions specified for the Chippewa Falls and Dells projects in Sections 3.1.5 and 3.1.6, respectively.

3.1.4.2 Reservoir Elevation

NSPW shall maintain the surface elevation of Lake Wissota within the following limits:

- During all dam spillage events[5] Elev. 897.0 to 900.0 ft
- April 1 to June 7, except when spilling Elev. 897.5 to 898.0 ft
- June 8 to ~1 wk before Spring runoff[6] Elev. 897.0 to 898.0 ft
- For 1 wk just prior to Spring runoff Elev. 895.0 to 898.0 ft

3.1.4.3 Annual Late-Winter Reservoir Drawdowns

To protect and enhance aquatic life in Lake Wissota, NSPW agrees to discontinue annual late-winter drawdowns of Lake Wissota, except that the surface water elevation may be lowered for a maximum of seven consecutive days (not to exceed 168 hrs) immediately before spring run-off each year, as described in Section 3.1.4.2. The rate of water withdrawal from Lake Wissota during this seven-day period shall not exceed 0.5 ft/day, and the days of water withdrawal and refill of the lake shall be counted as part of the seven day drawdown period.

3.1.5 Chippewa Falls Project

3.1.5.1 Operating Parameters

NSPW agrees to increase the downstream minimum flow for the Chippewa Falls Project beyond that specified in the current FERC license,[7] issued January 14, 1994. The

[5] The Wissota Project's spillway gates are unique self-operating Steuwerke gates that open automatically during high water events. The indicated three-foot operational range includes the maximum reservoir elevation that was reached during the 1941 flood of record plus the amount that the reservoir's water level must recede below full pool elevation before the spill gates close.

[6] "Spring runoff" for the Wissota Project means the first time after March 1 each year that stream flow exceeds the full-gate hydraulic capacity of the Wissota plant's six hydro turbines and one or more of the dam's spillway gates open.

[7] Article 401 stipulates that the Licensee shall release from the Chippewa Falls Project into the Chippewa River a minimum flow of 1,000 cfs during the period from April 15 through May 31 and a minimum flow of 785 cfs during the period from June 1 through April 14, as measured at the U.S. Geological Survey gaging station located 1 mile downstream of the Chippewa Falls Project.

agreed to minimum flow that is to be released from the project at all times is 1,000 cfs, as measured at the USGS gage located approximately one mile downstream from the dam (Station 05365500 Chippewa River at Chippewa Falls). In addition, flow releases from the Chippewa Falls Project shall be adjusted by NSPW, as necessary, to accommodate the flow regime that is described below (Section 3.1.6.1) for the downstream Dells Project.

3.1.5.2 Reservoir Elevation

The Chippewa Falls Flowage shall be maintained by NSPW as specified in Article 402 of the current FERC license (issued January 14, 1994), i.e., between elevations 838.5 and 839.5 ft at all times, except that the elevation may be increased to a maximum of 840.25 ft during a brief period (2 to 4 days) in the spring when the spillway gates may be intentionally overtopped to erode ice from the downstream side of the gates.

3.1.6 Dells Project

3.1.6.1 Operating Parameters

NSPW shall operate the Dells Project as a re-regulation facility while complying with the minimum and maximum tailwater flow limitations and definitions identified on Table 1 (page 33). During re-regulation, NSPW shall utilize the useable storage capacity of Dells Pond, to the fullest extent feasible, to moderate flow fluctuations caused by the large volume peaking flows that are discharged from the upstream hydro projects before they are released into the Dells Project's tailwaters.

3.1.6.2 Reservoir Elevation

NSPW shall maintain the surface water elevation of the Dells Pond within the following seasonal limits:

- April 1 to May 31 — Elevation 794.0 to 795.0 ft
- June 1 to March 31 — Elevation 793.0 to 795.0 ft

3.1.6.3 Down-ramping of Discharge Flows

NSPW shall down-ramp (incrementally decrease) discharge flows while reducing generation at the Dells Project under the following conditions: (1) When inflow to the project is between 1,800 and 6,000 cfs, and discharge from the project is more than double the minimum flow for the then applicable flow couplet (as identified in Table 1); and (2) during power demand contingencies as defined in footnote 4 of Table 1. The down-ramp sequence shall consist of at least one step-wise reduction in generation (discharge) with at least 30 minutes elapsing before another reduction in generation is initiated. This provision shall not preclude NSPW's operators from adding more steps to, or extending the time period of, the down-ramp sequence at their own discretion. The step-wise reduction in flow shall be accomplished by adjusting turbine load(s) and/or spillway gates so that discharge from the project during one of the down-ramp

steps approximates the mid-point (± 11%) between the high flow that is being released at the time and the minimum flow for the then applicable flow couplet. For example, presume that inflow is between 2,501 and 4,000 cfs, discharge from the project is 5,600 cfs, and the operational intention is to go directly to the minimum flow for the flow couplet (i.e. 2,200 cfs), then turbine load would be adjusted so that discharge equals approximately 3,900 cfs (± 11%) for at least 30 minutes before any further downward adjustment in turbine loading would be initiated.

3.1.7 Low Flow Contingency

The settlement team recognized that drought conditions may arise on the Chippewa River in the future that would make it difficult, if not impossible, for NSPW to abide by the minimum flow provisions and pond level restrictions specified in Sections 3.1.1 through 3.1.6. In view of this potential complication, the attached *Low Flow Contingency Plan* (Appendix D) was developed and shall be implemented by NSPW should extreme low flow conditions occur on the Chippewa River during the term of the settlement. The plan outlines the consultation steps and actions that shall be taken to assure that equal consideration is given to environmental/recreational resource protection measures and hydro generation needs during these extreme low flow events. NSPW has voluntarily agreed to implement this plan upon the signing date of this settlement.

3.1.8 Emergency Response Contingency

NSPW's obligations under Section 3.1 shall not prevent NSPW from taking any and all actions necessary to avoid or minimize damage to equipped facilities, property or to prevent the loss of life. In addition, the minimum flows, re-regulated flows and reservoir elevations that are specified for the individual projects listed above may be modified in response to operating emergencies beyond the control of NSPW, and for short periods upon mutual agreement between NSPW and the Resource Agencies. Should an operational emergency arise as a result of a hydro plant outage or failure of a communication link with a remotely operated plant, specific actions shall be taken by NSPW to restore power or communication to the site as well as to eliminate any compliance concerns that may have arisen as a result of the incident. The operational response procedures, monitoring equipment, and alarms that shall apply to NSPW in case of a plant outage are described in the attached *Plant Outage Plan* (Appendix E). If the emergency results in a violation of a prescribed minimum flow or reservoir elevation for any project subject to this settlement, NSPW shall notify the FERC and the IT as soon as possible, but no later than 10 days after each such incident in accordance with the *Operational Compliance Monitoring Plan* that was developed for this settlement (see Section 3.2.2 and Appendix F). Violations resulting from events not caused by NSPW, including but not limited to outages caused by lightning strikes, floods, and river ice conditions, shall not constitute a breach of this settlement.

3.2 HYDRO SYSTEM PRACTICES AND PROCEDURES

3.2.1 Operations Testing Plan

NSPW shall, after consultation with the settlement team, prepare and implement an operations testing plan. The plan shall include provisions for : (1) a two year test period that NSPW has voluntarily agreed to begin by April 1, 2001, to determine NSPW's ability to operate the projects in accordance with Section 3.0 of the settlement; (2) test protocol; (3) periodic consultation with the IT on the test results and to address any needed changes to the operational rules or definitions; and (4) submittal of a final report to the IT within six months of completion of the test period. The final report shall discuss the results of the testing and any necessary operational changes that may have been identified through the tests. Any operational changes so identified that may necessitate alteration of the provisions of this settlement shall be discussed and resolved by the IT in accordance with Section 8.0 of this settlement. NSPW shall subsequently notify the FERC of such changes, and if necessary, file a license amendment application(s) requesting that the altered settlement provision(s) be incorporated into the applicable project's license.

3.2.2 Compliance Monitoring

An *Operational Compliance Monitoring Plan,* developed by NSPW and approved by the settlement team (Appendix F), describes the compliance monitoring and recordkeeping requirements that NSPW shall follow while operating the Holcombe, Wissota and Dells hydro projects in the future. This plan shall be implemented by NSPW upon the effective date of this settlement.

3.2.3 Impoundment Drawdowns

A reservoir *Drawdown Management Plan*, developed by NSPW and approved by the settlement team (Appendix G), describes all requirements that are binding on NSPW if a drawdown, other than the 3-foot spring-time water level variance of lakes Holcombe and Wissota that were agreed to for this settlement, is conducted on Lake Holcombe, Lake Wissota, or Dells Pond. This plan shall be implemented by NSPW upon the effective date of this settlement.

3.2.4 Coordination of River Regulation With Corps of Engineers

NSPW agrees to continue the procedure of communicating daily river discharge and reservoir water level data for select Chippewa River hydro projects to the St. Paul District, ACOE. Presently, project data is communicated electronically each morning by the Wissota Project operator via the ACOE Telnet spreadsheet. The ACOE has requested that the daily submittal include next-day water release forecasts for the Dells and Wissota Dams but their spreadsheet presently will not accommodate such information. NSPW agrees to work with the ACOE to develop a format and mechanism for providing this forecast information as soon as possible but not later than one year after the effective date of this settlement.

4.0 NATURAL RESOURCE MANAGEMENT ISSUES

4.1 CHIPPEWA RIVER PROTECTION AND RESTORATION FUND

4.1.1 Fund Establishment and Administration

Upon implementation of this settlement, NSPW shall establish the Chippewa River Protection and Restoration Fund. The fund shall be administered through a specifically designated NSPW account comprised of two sub-accounts: (1) the Natural Resource Fund account ($500,000); and (2) the Fish Protection Fund (FPF) account ($3,250,000). The money in the sub-accounts shall be the sum of the funds identified for environmental protection, mitigation or restoration activities and studies, as well as fish protection, in the lower Chippewa River Basin as described in subsequent parts of this settlement agreement and as shown on Table 2 (pages 34-36). The total sum for the Natural Resource Fund shall be deposited by NSPW as a lump sum payment, whereas the money for the FPF shall be deposited in three installments as described in Section 4.1.5.2. The initial payment by NSPW into the sub-accounts shall be within 180 days of the effective date of this settlement.

The NSPW shall hold and administer the fund's accounts, in consultation with the IT. The money in each of the sub-accounts is to be invested, as directed by the IT and its financial advisor(s), until such time that the funds, or portions thereof, are spent by the IT. All monetary gains that are realized from the investments are to be deposited into the respective sub-accounts.

If NSPW fails to pay on time, or fails to pay in full, any amount required by this settlement, NSPW shall pay interest for each day of any late or insufficient payment. The applicable rate shall be the rate that NSPW would pay if it issued bonds in the capital market calculated as follows: As of the payment default date, the weekly average yield of 10 year U.S. Treasury securities plus the credit risk premium that reflects the increased risk associated with NSPW as compared to the federal government.

4.1.2 Implementation Team Oversight

Within 2 months of the effective date of this settlement, NSPW shall convene a meeting of the IT to select the appropriate financial instrument(s) for investing the money in the two sub-accounts and to establish a date for initial payment. At the meeting, the natural resource protection or habitat improvement measures listed in Table 2 shall be prioritized by the IT such that plans can be developed to implement high priority projects. The IT shall have discretionary authority for use of the fund including, but not limited to, the allocation and timing of fund expenditures among individual protection or habitat improvement measures, projects or studies, except for the following: Those funds designated for the FPF (described in Section 4.1.5) shall be reserved, invested and used solely for that purpose for the first 20 years after fund establishment. If, after the FPF has been established for at least 20 years and funds are still not sufficient to implement fish protection, or if cost effective and biologically effective fish protection

technology is not available, the parties agree that the money in the fund may be used for resource enhancements in the lower Chippewa River near the hydro projects, providing that there is consensus from the IT.

4.1.3 Fund Investment Plan and Annual Accounting Procedure

NSPW shall within six months of establishment of the Chippewa River Protection and Restoration Fund, and after consultation with the IT, file with the FERC a conservative investment and funding rollover plan, and an annual accounting procedure for the fund's two sub-accounts. The investment and spending strategy for the two sub-accounts will be different in that the Natural Resource Fund dollars will be spent on an as needed basis to complete planned habitat improvement projects; therefore, the dollars must be available when needed and the type of investment will have to be short-term. Conversely, the FPF dollars will likely remain invested and grow for several years as technology evolves; therefore, this account may be longer-term and return more on its investment.

4.1.4 Resource Management Plans

Within 180 days of the effective date of this settlement, NSPW shall file with the FERC a resource management plan and implementation schedule developed by the IT. The resource management plan shall describe specific enhancement/mitigation/protection activities or studies to be undertaken with monies from the two fund sub-accounts, as well as activities by NSPW in response to the settlement plan commitments (detailed on Table 2 and in appendices), and contain provisions to monitor the success of the implemented measures, where applicable.

4.1.5 Fish Protection Fund

4.1.5.1 Rationale

A fish turbine entrainment study was conducted at the Wissota Project during 1998 and 1999. The estimated number of fish entrained was approximately 523,894 fish per year, 99% of which were less than six inches in length. It was estimated that 3.7% or 19,384 of the entrained fish succumbed to instantaneous mortality during turbine passage and another 9.7% potentially perished as a result of delayed mortality. This represents an estimated overall annual loss of approximately 50,818 fish. Most stakeholders involved in this settlement agreed that mitigation is warranted for the fish mortalities at the Wissota Project as well as similar losses that may occur at the other Chippewa River hydro projects. At the same time, the stakeholders agreed that state-of-the-art fish protection technology for fish species that are indigenous to the Chippewa River system is not perfected such that fish protection measures (e.g., angled bar racks with a bypass, louvers with a bypass or fish friendly turbines[8]) can be installed at the Holcombe, Wissota and Dells projects with reasonable assurance that the measure(s) would effectively guide fish to a bypass or otherwise abate movement through the

[8] *Fish friendly turbines* means turbines that are designed to operate while inflicting no or minimal injury to the entrained fish.

turbines. However, active research is ongoing in this field and efficient, cost effective protection measures may be perfected in the future that will minimize or eliminate fish turbine entrainment.

Therefore, in the absence of available fish protection measures, NSPW and the other stakeholders agreed that the FPF should be established as part of this settlement. The FPF is to be established as a discrete part of the Chippewa River Protection and Restoration Fund described in section 4.1.1. The intent of the FPF is to provide a funding source such that fish turbine entrainment protection measures may eventually be installed at the Holcombe, Wissota, and Dells projects. The FPF will be available at a future date when, and if, fish protection technology is shown to be biologically effective at preventing or substantially reducing the risk of mortality to fish that are entrained through the hydro turbines.

Consistent with the intent of the preceding paragraph, NSPW agreed to contribute money to the Natural Resource Fund (Table 2) to study the feasibility of installing fish friendly turbines at the Dells Project as that facility is rehabilitated in the early-2000s. This money may be used for other purposes at the discretion of the IT if fish friendly turbines are not pursued by the group.

NSPW was directed in the 1994 FERC license for the Chippewa Falls Project to install and evaluate the effectiveness of narrow-spaced vertical bar trash racks (1-inch clear opening) as a fish entrainment deterrence or exclusionary device. The 1-inch bar trash racks were installed shortly after license issuance but the effectiveness study was not conducted because of disagreement between NSPW and agencies over the study scope and subsequent rehearing delays on the license order that continued until the time that discussions began for this settlement. At that time, the parties to the settlement proposed and the FERC concurred that the Chippewa Falls trash rack effectiveness study issue should be considered with the other issues for the Chippewa River that were to be resolved through this settlement. As a result of that decision, the stakeholders extensively discussed the effectiveness study issue and ultimately agreed that in lieu of a trash rack effectiveness study at Chippewa Falls, NSPW should commit additional monies (a one time sum of $250,000) to the FPF so that protective measures can be installed at the site if technological advances yield a practicable and effective alternative.

4.1.5.2 Funding

The NSPW shall deposit $1,250,000 into the FPF within 180 days of the effective date of this settlement and $1,000,000 at the five year and ten year anniversaries of the effective date. Each installment to the fund shall be in year 2000 dollars, adjusted annually for changes in the Consumer Price Index of the U.S. Department of Labor. The FPF shall be invested, with the monetary gains placed directly into the FPF, until such time that all funds are exhausted. Funds for fish protection measures may also be contributed from outside sources (e.g., federal and state grants), exclusive of, but joined with, funds in the FPF.

The fund shall be maintained until such time that an appropriate fish protection measure(s), including but not limited to angled bar racks, louvers, screens, and fish friendly turbines, are shown to be biologically effective to bypass or otherwise exclude fish from being entrained and are installed at the Holcombe, Wissota, Chippewa Falls and Dells Hydro project sites.

The IT may use FPF dollars for resource enhancements in the lower Chippewa River near the hydro projects provided that: (1) twenty (20) or more years have elapsed since the effective date of this settlement, and (2) insufficient money is available in the FPF, inclusive of contributions from outside sources, to implement fish protection measures, or cost effective and biologically effective fish protection technology is not available.

4.1.5.3 Implementation Team Meetings

The financial status of the FPF and the state-of-the-art of fish protection technology shall be discussed by the IT annually, or more often if deemed necessary by the IT, to keep all parties up to date. The IT shall have the flexibility to select at what hydro project(s) fish protection devices shall be installed. Thus, any time over the term of the project licenses that the IT determines that appropriate, biologically effective, fish protection measures are available and may be installed for a sum not to exceed the funds available in the FPF (inclusive of contributions from the previously mentioned outside sources), NSPW in consultation with the IT, may allocate money from the FPF to prepare an initial conceptual plan (see Section 4.1.5.4.) to install and operate fish protection measures at one or more of the hydro projects referenced herein.

4.1.5.4 Conceptual Plan For Downstream Fish Passage and/or Protection

Within one year of the IT's decision to consider fish passage/protection measures, the IT shall meet and develop a conceptual plan, including fish passage/protection objectives and alternative design selection criteria, for installation of the passage/protection device or measure at the selected hydro project(s). A fish protection measure can be a purely exclusionary device such as a barrier net or screen designed to keep fish in the flowage, a device that will guide fish to a bypass structure and safely downstream around the hydro turbines, a fish friendly turbine, or other alternatives that may evolve through technological advances.

The resource agencies will provide their expertise and experience on fish protection alternatives that may be applicable to the projects, and with concurrence from the IT, may arrange to have a fishway engineer, possibly a FWS fishway engineer, attend this meeting and act as a consultant for this project.

A fishway engineer/consultant, paid from the FPF, may at the discretion of the IT, conduct and complete the evaluation needed to determine the technical feasibility and effectiveness of each fish protection measure identified for evaluation in the conceptual plan. The fishway engineer's evaluation shall include costs, technical feasibility, and biological effectiveness of alternative fish protection measures based on the general design screening criteria listed in the conceptual plan.

After completion of the technical feasibility evaluation, NSPW shall hold another meeting at which time the fishway engineer shall present the results of the evaluation to the IT. At the meeting, the fishway engineer's recommended alternative for fish protection shall be identified and described, along with rationale for its selection. The IT will review and comment on the fishway engineer's evaluation, after which the fishway engineer shall prepare the final report.

The IT will seek consensus on what fish protection measure(s) to install at the hydro site(s). It shall be recognized that, in implementing this provision, reasonable differences of opinion may arise which shall not constitute breach of this agreement. In the event that the IT is unable to reach consensus and/or mutual agreement as required, the IT may implement dispute resolution in accordance with procedures outlined in Section 8.3.

4.1.5.5 Implementation Plan and Schedule

After the IT has approved the design, NSPW shall file for FERC review, comment and approval a plan and schedule for installation of the downstream fish passage/protection measure at the selected project site(s).

4.1.5.6 Effectiveness Testing

If and when a fish protection measure is installed, the IT will determine whether an effectiveness study is needed. If the decision is reached that such a study is needed, it shall be conducted using a mutually agreed upon study plan that is to be prepared by the resource agencies and NSPW. The cost of the effectiveness study may be funded by the FPF as may any reasonable modifications to make the operation of the fish protection measure as effective as reasonably possible.

4.1.5.7 Operations And Maintenance Costs

The operations and maintenance (O&M) costs for the installed fish passage/protection measure(s) shall be funded by NSPW independent of the FPF. The parties agree that the reasonableness of O&M costs shall be evaluated by the IT as part of the alternative design selection criteria for any passage/protection measure considered for installation.

4.2 UPSTREAM FISH PASSAGE

Upstream fish passage was not sought by any party for any of the lower Chippewa River hydro projects at the time of this settlement. However, it was recognized that passage of target fish species might become a formal management objective of the WDNR or FWS at some time during the term of the FERC licenses.

4.2.1 Biological Justification

Should the WDNR decide to pursue upstream fish passage during the term of the licenses for the Holcombe, Wissota or Dells projects, the WDNR shall develop the

biological justification for seeking fish passage measures with details about the fish species to be passed and the recommended biological design parameters for such fish passage measures. Upstream fish passage measures may include, but are not limited to, fishways, project operational changes, reintroduction of fish species upstream of dams, and trap and transfer activities. The WDNR shall consult with the FWS pursuant to Section 7 of the Endangered Species Act. The FWS shall provide input to the WDNR's biological justification document relative to protection of federally-listed fish species and other aquatic organisms (e.g., mussels), and comment on other aspects of the fish passage justification document, as the FWS deems appropriate.

4.2.2 Implementation Team Consultation

The IT and other concerned stakeholders shall conduct discussions relative to upstream fish passage, including economic and environmental cost/benefits, at scheduled meetings held by the IT. During these discussions, consideration shall also be given to natural barriers (e.g., waterfalls) that are known to have historically blocked fish passage on the lower Chippewa River. The NSPW and other parties shall review the biological justification provided by the WDNR and FWS. The parties shall attempt to reach agreement by consensus on a plan for upstream fish passage that meets the needs of all concerned parties. If NSPW, or other concerned party, does not agree that fish passage is justified, dispute resolution, as defined in Section 8.3 of this settlement, shall be initiated. If consensus is reached that fish passage is justified, NSPW shall fund the design, construction, operation, and maintenance of the agreed to upstream fish passage measure.

4.2.3 FERC Submittal

Upon consensus of the IT regarding a plan for upstream fish passage pursuant to Section 4.2.2, the WDNR shall submit a request to the FERC for the installation of fish passage at a project(s) along with the biological justification and other supportive information. Upon receipt of the WDNR's request, the FERC may issue an order requiring NSPW to install or implement the necessary fish passage measure. NSPW reserves the right to appeal under FERC regulations, if there are any unresolved concerns with the fish passage request.

4.2.4 Schedule

NSPW shall file with the FERC a plan and schedule for installation or implementation of the fish passage measure within one year of receipt of the final FERC order requiring implementation of the fish passage measure. The plan and schedule shall be developed in consultation with the IT and shall include, but not be limited to: (1) design drawings and construction schedule for any physical structure(s) that may be required; (2) an implementation plan for the structure(s) or measure; and (3) provisions for development of an operation and maintenance plan and performance evaluation plan that are to be followed after the facility or measure is installed.

4.2.5 Section 18 Authority

The process outlined above does not in any way preclude the FWS, through the Department of the Interior, from prescribing upstream or downstream fish passage facilities, pursuant to Section 18 of the Federal Power Act. Accordingly, the Secretary of the Department of the Interior, as delegated to the FWS, exercises his/her authority under Section 18 of the Federal Power Act, as amended, by reserving the authority to prescribe the construction, operation, and maintenance of such fishways as deemed necessary, including measures to evaluate the need for fishways, and to determine, ensure, or improve the effectiveness of such fishways. This reservation includes authority to prescribe fishways for existing riverine fish species and/or any fish species to be managed, enhanced, protected, or restored in the basin during the term of the license. The FWS will not invoke this authority or make recommendations pursuant to the Fish and Wildlife Coordination Act for implementing fish passage without consulting the WDNR.

Should the Section 18 prescriptive authority of the Secretary of the Department of the Interior be modified or rescinded by federal legislation, regulation or memorandum of understanding during the term of the new licenses for any of the hydroelectric projects subject to this settlement, the parties agree that the prescriptive language in the preceding paragraph shall be modified or rescinded to be consistent with the then current legislation, regulations or memorandum of understanding.

4.3 LAKE STURGEON PROTECTION AND ENHANCEMENT

4.3.1 Sturgeon Mortality In Dam Tailwaters

Dead lake sturgeon (*Acipenser fulvescens*) have been observed occasionally in the tailwaters of some of NSPW's Chippewa River hydro projects but the cause of the fish deaths and the extent of the problem on the local sturgeon population have not been determined. Because this species is of high management concern to state and federal agencies, the attached *Lake Sturgeon Mortality Plan* (Appendix H) was developed by NSPW to gather as much information as possible about any dead lake sturgeon that are found in the future near the Jim Falls, Wissota and Chippewa Falls project sites. The intent of the plan is to try to determine the cause of the sturgeon deaths, to ascertain if the deaths are in any way related to hydro operations, and if so, to take remedial actions to prevent future deaths. The plan, which was reviewed and approved by the settlement team, shall be implemented by NSPW upon the effective date of this settlement.

4.3.2 Sturgeon Spawning Enhancement Flows

The bypass river channel downstream from the main spillway at the Jim Falls Project is a documented spawning site for lake sturgeon. NSPW has historically released a minimum flow of 240 cfs into the channel during the sturgeon spawning season (May), but the WDNR and FWS believes that increased spring-time flows might enhance the spawning success of lake sturgeon and other riverine fish species. Therefore, as

mitigation for hydro-related impacts elsewhere on the Chippewa River (Cornell Project tailwaters), NSPW agrees to release a total minimum flow of at least 850 cfs into the Jim Falls bypass channel throughout the months of April and May each year, as so stated in Section 3.1.3. This provision shall be implemented by NSPW upon the effective date of the FERC license amendment order that incorporates this provision into the license for the Jim Falls Project.

4.4 TAILWATER FISH STRANDING MITIGATION

Stranding of fish and other aquatic organisms has occurred in the past in the tailwaters of some of the Chippewa River hydro projects, primarily as a result of spillway gate closure following high flow events. Such incidents, although infrequent, were of concern to stakeholders because important game and sport fish occasionally died as a result of stranding or desiccation. In response to this concern, NSPW implemented remedial measures and developed the attached *Fish Stranding Remediation Plan For The Chippewa River Hydro Projects* (Appendix I) that was reviewed and approved by the settlement team. This plan shall be implemented by NSPW upon the effective date of this settlement.

4.5 HABITAT MANAGEMENT PROJECTS AND FUNDS

4.5.1 Trash/Woody Debris Management Plan

NSPW and the settlement team developed a *Trash/Woody Debris Management Plan* for the Holcombe, Wissota, and Dells projects (Appendix J) that shall be implemented by NSPW. The plan includes procedures for handling trashrack debris at each of the projects with the intent of returning as much of the large woody debris to the river system as possible to maintain and enhance aquatic habitat. Implementation of this plan shall be consistent with FERC boating safety requirements and any fish/watershed management plan for the Chippewa River Basin. This plan shall be implemented by NSPW upon the effective date of this settlement.

4.5.2 Lake Holcombe Backwater Enhancements

There are many backwater bays on Lake Holcombe that are connected to the main basins of the lake by long, shallow channels or constricted openings. Although these backwaters provide important habitat for adult and juvenile fish, particularly during winter months, they are vulnerable to dissolved oxygen (DO) depletion due to their isolation from the main basins of the lake. Several enhancement projects were identified that may be implemented as part of the settlement to physically improve aquatic habitat in the backwater bays including: dredging of channels, installation of culverts under roadways, and artificial aeration. NSPW agrees to commit a one time sum of money to the Natural Resource Fund (Table 2), to be expended at the IT's discretion, to implement and maintain these enhancement measures.

In addition to the above mentioned physical enhancement measures, NSPW shall continue its long-time practice of fluctuating the water level of Lake Holcombe during the

winter months to enhance DO conditions in the backwater bays (see Section 3.1.1.2, footnote 3). This practice, which involves fluctuating the lake's water level two to three feet on a weekly basis, pulses highly oxygenated water from the main basins of the lake into and out of the backwater bays where DO becomes depleted. The WDNR reserves their right to review and to have NSPW modify or discontinue this practice in the future.

4.5.3 Other Habitat Management Measures

Several other aquatic habitat management measures may potentially be implemented at the Holcombe, Wissota and Dells projects as mitigation for impacts associated with impoundment drawdowns and water level fluctuations. Measures that were identified during the settlement included installation of fish cribs or other structures in the impoundments or tailwaters, backwater enlargements on Lake Wissota, and introduction of aquatic macrophytes in flowages where water level fluctuations will be reduced. NSPW agrees to commit a one time sum of money to the Natural Resource Fund (Table 2), to be expended at the IT's discretion, to implement these and other habitat management measures as well as to promote and educate the public about what they can do to protect and improve the Chippewa River's habitat.

4.6 THREATENED AND ENDANGERED RESOURCES

The FWS provided NSPW with an updated list of federally-listed threatened and endangered species, species proposed to be so listed, and federal species of concern that are known to occur in the vicinity of the Holcombe, Wissota, and Dells projects.

To facilitate compliance with Section 7(c) of the Endangered Species Act (ESA), as amended, federal agencies are required to obtain information from the FWS concerning any species, listed or proposed to be listed, that may be in the area of a proposed action. As the federal licensing agency, the FERC requires that the licensee report federally listed or proposed-to-be-listed threatened and endangered species and designated critical habitat in the vicinity of the hydro project(s) being licensed.

4.6.1 Federally Listed Threatened and Endangered Species

The following species are known to occur in the vicinity of the Holcombe, Wissota, and Dells Hydro projects in Rusk, Chippewa, Eau Claire, and Dunn Counties, Wisconsin:

Classification	Common Name	Scientific Name	Habitat	County
threatened	bald eagle	*Haliaeetus leucocephalus*	nesting, wintering	Rusk, Chippewa, Eau Claire, Dunn
endangered	gray wolf	*Canis lupis*	northern forests	Rusk, Eau Claire
endangered	Karner blue butterfly	*Lycaeides melissa samuelis*	prairie, oak savanna & jack pine areas with wild lupine	Chippewa, Eau Claire, Dunn

Bald Eagle: The bald eagle forages on the flowages and tailwater segments of all the Chippewa River hydro projects. Although eagles do not currently nest on licensee-owned project land they do nest on adjacent properties. Several large coniferous (e.g, white pine, red pine) and deciduous (e.g., cottonwood) trees occur on licensee-owned shorelines and river lands that are used as perch sites when bald eagles forage along the lower Chippewa River. Given the common presence of the bald eagle on and adjacent to project lands, the bald eagle may nest on licensee-owned lands at some time over the term of the license. The licensee shall implement its *Bald Eagle Management Plan For The Lower Chippewa River Hydro Projects* (Appendix K), which includes protection of large coniferous and deciduous trees from cutting during forestry practices. If, over the term of the project licenses, bald eagles nest on licensee-owned project land, the licensee shall implement other appropriate provisions of its *Bald Eagle Management Plan* to protect bald eagles and their habitat from human disturbance and otherwise incompatible land uses.

Bald eagles have nested along the shoreline of Dells Pond, however, recent records show that no active nesting on Dells Pond has occurred in recent years. Another bald eagle nest is located in a white pine tree along the Chippewa River between Dells Pond and the Chippewa Falls Hydro Project. This nest has produced young in recent years but is not located on Dells Hydro Project land. Two active nests are located on Lake Holcombe and another is located in the tailwaters of the Cornell Project but none of these are on licensee-owned lands.

Karner Blue Butterfly: The FWS's distribution records for the Karner blue butterfly show that it is not known to occur on licensee-owned project land at the Holcombe, Wissota, or Dells Hydro projects. However, the Karner blue butterfly and wild lupine, the primary plant food of the butterfly larvae, do occur in the general area of the Dells Hydro Project and could occur on project land in the future.

Gray Wolf: Probable gray wolf range occurs in portions of Rusk, Chippewa, and Eau Claire counties, however, no wolf activity is known to occur in the immediate vicinity of the hydro projects.

4.6.2 Candidate Species

The Eastern Massasauga rattlesnake (*Sistrurus catenatus catenatus*) was elevated to Federal candidate for listing status in October, 1999. This species of rattlesnake is not known to occur within the project boundaries of the Holcombe, Wissota, and Dells Hydro projects but is present in Buffalo and Pepin Counties in the lower Chippewa River's Nelson-Trevino Bottoms.

4.6.3 Federal Species of Concern

Several federal species of concern occur in the lower Chippewa River including lake sturgeon (*Acipenser fulvescens*), paddlefish (*Polyodon spathula*), crystal darter (*Ammocrypta asprella*), blue sucker (*Cycleptus elongatus*), salamander mussel (*Simpsonaias ambigua*), Blanding's turtle (*Emydoidea blandingi*), common tern

(*Sterna hirundo*) and New England violet (*Viola novae-angliae*). These species were formerly referred to by the FWS as C2 candidate species for possible future listing as threatened or endangered, but are now referred to as federal species of concern. Table 1 in the *Threatened and Endangered Resources Plan* (Appendix L) lists special status species, including their state status, within the project boundaries or geographical locale of the Holcombe, Wissota, and Dells Hydro projects. The FWS recommends that activities on project lands be designed to avoid and/or minimize harm to these species.

4.6.4 Summary of Species Status

Bald eagles forage and nest in the project area but do not currently nest on licensee-owned project lands. The bald eagle is proposed to be delisted by the FWS, however, when this occurs, it will still be protected under the Migratory Bird Treaty Act and the Eagle Protection Act. No Karner blue butterfly sites are known to occur on project lands. Probable gray wolf range occurs in portions of Rusk, Chippewa, and Eau Claire Counties, however, no wolf activity is known to occur in the immediate vicinity of the hydro projects. There is no critical habitat designated, or species now proposed-to-be-listed, in the immediate vicinity of the Holcombe, Wissota, and Dells hydro projects.

The parties agree that the project operational changes proposed in this settlement, along with implementation of the land management plans for each hydro project, are expected to improve and protect aquatic and terrestrial habitat for federally- and state-listed species and special concern species.

4.6.5 Licensee's Future Consultation Requirements

(A) After the effective date of this settlement, the licensee, in consultation with the FWS and WDNR, shall review the status of federally- and state-listed threatened and endangered species and those proposed to be listed, every two years to determine if recently listed species occur on licensee-owned project lands. A summary of the review shall be provided to the FWS, WDNR, and FERC.

(B) If, over the term of the new FERC licenses, a species present on licensee-owned project land becomes federally-listed or is proposed to be listed, or the bald eagle, gray wolf or Karner blue butterfly are found to reside on licensee owned-project land, the licensee shall consult with the FWS, WDNR, and FERC and implement its *Threatened and Endangered Resources Plan* (Appendix L). The FERC and the FWS will coordinate as appropriate under Section 7 of the ESA.

(C) If any federally-listed species is delisted, the licensee shall consult with the FWS, FERC, and WDNR on any management changes to project lands and water that may be appropriate.

4.6.6 Funds For Species Reintroduction and Studies

NSPW has committed a one time sum of money to the Natural Resource Fund (Table 2) to implement the *Threatened and Endangered Resources Plan* (Appendix L). These

funds, or any portion thereof, may be used at the IT's discretion for assorted management activities including but not limited to the following: species reintroduction feasibility studies; the movement and reintroduction of special status species of fish, mussels or other life forms to project waters or lands where they are absent or have depauperate populations; and follow-up studies to determine the viability of the reintroduced populations.

4.7 RESEARCH AND EFFECTIVENESS STUDIES

NSPW agrees to commit a one-time sum of money to the Natural Resource Fund (Table 2), expendable at the IT's discretion, to conduct post-licensing research and effectiveness studies. These studies may be performed by selected contractor(s) or agency personnel to assess the response of aquatic biota to modified tailwater flow regimes (particularly in the Dells or Jim Falls projects' tailwaters), to reduced impoundment water level fluctuations, or to assess the effectiveness of habitat improvement projects or other remedial measures that may be implemented as a result of this settlement.

4.8 WATER QUALITY

NSPW committed in other parts of this settlement to implement habitat improvement measures on Lake Holcombe in an attempt to alleviate dissolved oxygen (DO) depletion problems that occur in some of the lake's backwater bays. In addition to these habitat improvement measures, NSPW has committed a one-time sum of money to the Natural Resource Fund (Table 2) for DO monitoring, or for monitoring other water quality parameters, at the Holcombe, Wissota or Dells projects in case a water quality concern arises in the future. The monitoring shall be conducted as determined necessary by the IT. NSPW agrees to implement any reasonable water quality remediation efforts that may be deemed necessary by the IT, if the need for remediation is caused by a hydro project-related activity or operational practice, and can be accommodated with minimal economic impact.

4.9 EXOTICS AND NUISANCE SPECIES CONTROL

Several plant and animal species that are considered exotic or nuisance species are known to inhabit or potentially could invade project lands or waters. Because these species pose a competitive threat to native species and may reach nuisance proportions, the settlement team agreed that measures needed to be developed to periodically monitor, and where needed, to control their abundance. Thus, the attached *Exotics Control Plan* was developed by NSPW and approved by the settlement team (Appendix M). This plan shall be implemented by NSPW upon the effective date of this settlement. In addition, NSPW has committed a one time sum of money to the Natural Resource Fund (Table 2) to assure that funds are available to implement this plan.

4.10 ADAPTIVE MANAGEMENT CONTINGENCY

NSPW has committed a one time sum of money to the Natural Resource Fund (Table 2) to be applied at the IT's discretion for adaptive management activities or studies that arise in the future. For clarification, the Natural Resource Fund has been designed by the settlement team as a form of adaptive management in that the IT has discretionary authority to select the studies or measures that are to be implemented as a result of the settlement and to designate other uses of the fund.

5.0 LANDS MANAGEMENT

NSPW and the settlement team developed individual land management plans for the Holcombe, Wissota and Dells projects (Appendices N, O and P, respectively) that shall be implemented by NSPW upon approval of the settlement by the FERC. The plans include measures that will maintain and enhance the shorelands of NSPW's landholdings on the projects' flowages while providing opportunity for continued public usage of those lands that are safe for public entry. These land management plans shall be implemented by NSPW along with the FERC's standard land conveyance article that is anticipated to be made part of each new FERC license for the projects.
In addition to the Land Management Plans mentioned above, NSPW and the settlement team developed a generic *Shoreline Erosion Protection Plans* for the Holcombe, Wissota and Dells projects (Appendix Q). The plan provides for the routine monitoring and documentation of erosion along the reservoir shorelines and the restoration of any highly eroded sites that are detected. This plan shall be implemented by NSPW upon the effective date of this settlement.

6.0 PUBLIC RECREATIONAL USE FACILITIES AND OPPORTUNITIES

6.1 RECREATION FACILITY IMPROVEMENTS

Recreation facility improvement plans were developed by NSPW and the settlement team for the project-related recreational facilities at the Holcombe, Wissota and Dells projects. The plans, included herewith as Appendices R, S and T, respectively, shall be implemented by NSPW upon the effective date of this settlement. Monies for implementing the recreational facility improvement plans shall be provided by NSPW independent of the Chippewa River Protection and Restoration Fund identified in Section 4.1 of this settlement.

In the past, NSPW has responded to requests and made contributions to local groups or units of government for projects that enhanced recreational facilities or opportunities associated with the Chippewa River hydro projects. NSPW agrees to continue to cooperate with agencies and local units of government and provide funding assistance for unidentified future recreation improvement projects.

6.2 WHITEWATER RECREATIONAL FLOWS IN JIM FALLS BYPASS CHANNEL

The suitability of the Jim Falls Project's bypass river channel for kayaking was assessed during the settlement process at the request of the Park Service. This channel has several rapids and narrow chutes with some 20 ft of fall over its approximate 0.75 mile length and offers the best whitewater opportunities among the Chippewa River hydro project sites. It was determined that a flow of 650 cfs, equivalent to 410 cfs more than the license-prescribed minimum flow of 240 cfs, would be an optimum flow in the bypassed reach for intermediate kayakers. This finding prompted the development of the attached plan (Appendix C) that includes provisions for the periodic release of spill flows into the channel each year by NSPW so that kayakers can pursue their sport. This plan shall be implemented by NSPW upon the effective date of the FERC license amendment order that incorporates this provision into the license for the Jim Falls Project.

6.3 RECREATIONAL FACILITIES BROCHURE

NSPW and the settlement team agreed that a recreational facilities brochure, including a brief historical summary of the lower Chippewa River, should be developed that describes the location and available amenities for the project-related recreational use facilities at all of the Chippewa River hydro project sites. The brochure shall be developed by NSPW, in coordination with the IT, within three years of the effective date of this settlement.

7.0 FUTURE DAM RESPONSIBILITY

NSPW and the settlement team developed the attached *Future Dam Responsibility Plan* (Appendix U) that addresses NSPW's commitments should the company decide to sell, surrender the license(s) or engage in life extension activities for the Holcombe, Wissota or Dells projects during the term of the settlement. This plan shall be implemented by NSPW upon the effective date of this settlement.

8.0 SETTLEMENT IMPLEMENTATION

8.1 ESTABLISHMENT AND FUNCTIONS OF IMPLEMENTATION TEAM

8.1.1 Team Composition

An Implementation Team (IT) shall be established to coordinate and implement the settlement's provisions. The IT shall be comprised of those signatories to the settlement who elect to participate and ex-officio advisory members as provided in Section 8.1.2. There shall be one representative each from NSPW, WDNR, and the federal natural resource agencies, plus other stakeholder groups who choose to participate. All signatories to the settlement shall be invited to the first meeting of the IT

and asked at that time to make a commitment as to their future involvement on the IT. Any signatory who declines at that time to participate on the IT shall be conferred the status of an ex-officio member, as provided in Section 8.1.2.

If any party decides to change its IT member, the name, address and telephone number of the successor shall be provided, in writing, to the other parties and the appropriate FERC Director within the Office of Energy Projects, or successors, at least seven days prior to the effective date of the change or as soon thereafter as practical.

The IT coordinator shall be the NSPW representative, who will organize and record meetings, conduct business and other such matters.

8.1.2 Ex-officio Membership

Ex-officio advisory status application is open to any Stakeholder who chooses not to serve on the IT or to other organizations that did not participate in the settlement negotiations. The designated representative of such organization(s) shall apply in writing to the IT for ex-officio advisory status. All such letters must include the name and address of any proposed representative and the requested duration of membership. The IT shall within 30 days following receipt of a request decide to accept or deny such requests. Any denial shall be supported by a written explanation that is signed by all supporting IT members and returned to the requester. The IT shall periodically review the status and representation of all ex-officio advisory members to ensure they are still interested in retaining their active status.

All ex-officio advisory members or their designees may attend all annual and periodic oversight meetings, as well as any other IT meetings, and participate in an ex-officio advisory capacity. All meeting items and minutes shall be provided to the ex-officio advisory members on the same schedule as the IT, regardless of whether they or their designee attended the meeting. Provision of notice and notes to the ex-officio advisory members is dependent on those members providing the IT coordinator with their designated representative's name and address in writing.

8.1.3 Implementation Team Bylaws

Bylaws shall be developed by the IT within 12 months of execution of this settlement. The bylaws shall define how the IT is to function, the terms of ex-officio advisory members, and all other issues pertinent to settlement implementation, including periodic review and updating of the bylaws.

8.1.4 Annual Meetings

The IT shall meet at least once annually to review activities for the preceding and succeeding years. More frequent meetings shall be convened at the IT's discretion to provide for ongoing coordination and implementation of the actions required by this settlement. The IT coordinator shall be responsible for:

(A) Establishing the date, time and place of the annual meetings and any intervening meetings of the IT, as may be required;
(B) Notifying all IT and ex-officio members of each meeting at least 14 days in advance of the meeting;
(C) Notifying the FERC's Office of Energy Projects, or successor, of each annual meeting at least 14 days in advance of the meeting;
(D) Setting any unscheduled meeting of the IT, if requested in writing by two or more members of the IT; and
(E) Arranging meetings, including the recording and dissemination of meeting notes.

8.1.5 Ad Hoc Teams

Communications between the parties and all documents, reports, submissions and correspondence concerning activities performed pursuant to the provisions of this settlement shall be directed through the IT. The IT shall meet as often as necessary to provide for the swift and orderly implementation of the terms and conditions of this settlement. The IT may at its option invite any individual or organizational representative to any of its meetings to offer advice and to serve in the same capacity as an ex-officio member. The IT may also form ad hoc teams that include other employees, interested parties, contractors or consultants to pursue and/or monitor any actions required by or resulting from this settlement. The IT shall periodically inform all interested parties including those identified in Section 8.1.2 and others that may be interested, of the progress and actions taken to implement this settlement. This information may be provided in writing, or orally in a meeting, at a frequency determined at the annual meeting described in Section 8.1.4.

8.2 REVIEW, CONSULTATION AND CONCURRENCE OF SETTLEMENT SUBMITTALS

This section establishes the communications protocol that is to be followed by the IT for submittals to the FERC and other written correspondence that may be developed pursuant to implementation of the settlement.

8.2.1 Reviews

All plans, studies, reports and submittals shall be delivered to the IT, including ex-officio advisory members, for review in accordance with the schedules established in this settlement. Prior to the formal review period, an informal review draft shall be forwarded to the IT to allow for an informal review of at least 14 days duration in an attempt to preliminarily resolve major concerns.

8.2.2 Review Consultation

Upon receipt of any form of written correspondence, other than an informal draft, that has been forwarded for review pursuant to this settlement, the IT members shall within 45 days provide a written response to NSPW that indicates one of the following:

(1) concurrence with the forwarded material, or (2) non-concurrence with a list of recommendations or noted deficiencies. If a party fails to respond within 45 days, NSPW shall proceed as if the IT member had given their concurrence.

Upon receipt of notice of concurrence and following FERC approval, if necessary, NSPW shall take any action required by the submittal. Approved submittals shall become enforceable under the terms of this settlement and any new licenses issued by the FERC. All comments from the IT and ex-officio members, shall be addressed in the final FERC submittal.

8.2.3 Non-concurrence

Any notice of non-concurrence to NSPW from the IT in response to draft submittals that are reviewed pursuant to Section 8.2.2 shall specify the reasons for non-concurrence. Upon receipt of a notice of non-concurrence from an IT member, NSPW shall within 60 days: (1) address the comments and submit the modified item of correspondence to the IT and then to the FERC for approval, if necessary, or (2) refer the matter to dispute resolution pursuant to Section 8.3. NSPW shall implement any action for the submittal that is not under dispute, to the extent required by any FERC approval that is received.

8.2.4 Concurrence

Implementation Team concurrence means the submittal is acceptable to meet the intent of the settlement but does not necessarily mean that all IT members concur with all conclusions, methods or statements in the submittal.

8.3 DISPUTE RESOLUTION

If a dispute should arise with the terms and conditions of this settlement, or for any action taken to implement this settlement, the IT shall engage in good faith negotiations for a period of 90 days, unless extended by written agreement of the IT members, in an attempt to resolve the dispute. The negotiations shall be initiated by either the IT coordinator or the aggrieved IT member. If the dispute cannot be resolved by the IT, the IT shall engage the services of a third party arbitrator, facilitator or other agreed upon entity, including the FERC. The IT and selected entity shall establish the schedule for this resolution process. If no other funding or free services can be procured, funds to pay for the third party arbitrator, facilitator or other agreed upon entity may be drawn from the adaptive management/ contingency portion of the Natural Resource Fund (Section 4.1).

The provisions of the preceding paragraph are not intended to and shall not be construed to constitute a waiver, nor delay the exercise of, legal rights and remedies available to any party to this settlement.

TABLES

Table 1. Flow regime for the Dells Hydroelectric Project as negotiated for the Lower Chippewa River Settlement Agreement.

The Dells Project operations shall be based on inflow to Dells Pond[1] and subject to the following flow discharge restrictions for water releases from the Dells powerhouse and/or spillway:

- **From the end of spring run-off [2] or April 1 (whichever is later) until May 31:** Discharge shall approximately equal run-of-river (± 15% from inflow to Dells Pond), unless flows are rapidly rising or falling due to runoff events, then operator judgement shall be used to release flows that simulate run-of-river, to the extent feasible.

- **From June 1 until initiation of spring run-off or April 1 (whichever is later):**

IF INFLOW IS:	MINIMUM FLOW SHALL EQUAL OR EXCEED:	MAXIMUM FLOW SHALL NOT EXCEED:
< 1,800 cfs [3]	Inflow, -10%	Inflow +15%, except for power demand contingencies [4]
1,800 to 2,500 cfs	1,800 cfs	4,000 cfs, except for power demand contingencies
2,501 to 4,000 cfs	2,200 cfs	5,600 cfs, except for power demand contingencies
4,001 to 5,000 cfs	2,600 cfs	6,500 cfs, except for power demand contingencies
5,001 to 6,000 cfs	3,000 cfs	7,500 cfs, except for power demand contingencies
6,001 to 7,500 cfs	4,000 cfs	Unlimited
7,501 to 9,600 cfs	5,000 cfs	Unlimited
>9,601 cfs	Run-of-river	Run-of-river

[1] Inflow to the Dells Pond shall be determined by NSPW using the Vista Decision Support System or comparable computer software installed at the Wissota Project (see Appendix F, *Operational Compliance Plan*).

[2] End of spring runoff means the first time each year after March 1 that stream flow has peaked after snowmelt at the Wissota Project and flow has receded to less than 9,600 cfs.

[3] For natural flows ≤1,000 cfs, the *Low Flow Contingency Plan* (Appendix D) is to be implemented.

[4] Power demand contingencies include the following conditions or events: 1) any emergency condition on the licensee's electrical system where Chippewa River hydropower generation is necessary to prevent a system brown-out or black-out; and 2) for 263 hours per year, based on a 12-month rolling average, that may be used at NSPW's discretion. The power demand contingency applies only to the maximum flows that are to be discharged; the prescribed minimum flows shall be released at all times, including during power demand contingencies.

Table 2. Natural resource protection measures and funding sums negotiated for the Chippewa River Protection and Restoration Fund.

ISSUE	AGREED TO PROTECTION MEASURE(S)[1]	NSPW's MONETARY COMMITMENT TO FUND[2]
1. INSTREAM FLOWS		
• Dells Tailwater	See Table 1	
• Chippewa Falls Tailwater	1,000 cfs min. flow all year	
• Jim Falls Bypass Channel:		
►Increase minimum flows in bypass channel.	240 cfs - June 1 to March 31 850 cfs - April 1 to May 31	
►Provide recreational flow release for 5 hrs.	650 cfs - twice in Jul & Aug	
• Cornell Tailwater: Increase year-round minimum flow in tailwater.	400 cfs year-round	
• Implement *Low Flow Contingency Plan.*	See Appendix D	
• Implement *Operational Compliance Monitoring Plan.*	See Appendix F	
2. FLOWAGE WATER LEVEL FLUCTUATIONS		
• Spring spawning season (April 1- June 7):		
► Chippewa Falls	In accordance with FERC license	
► Holcombe, Cornell, & Wissota	0.5'	
► Jim Falls	0.8'	
► Dells	1.0'	
• Remainder of year (except for winter pulsing or drawdowns as noted below):		
► Holcombe & Wissota	1.0'	
► Cornell	In accordance with FERC license	
► Jim Falls	In accordance with FERC license	
► Chippewa Falls	In accordance with FERC license	
► Dells	2.0'	
• Lk. Holcombe – winter pulsing of lake level	2-3'	
• Late-winter drawdown of Lk. Holcombe and Wissota.	3-ft for 1-wk just before runoff	
• Maintenance/emergency drawdowns on all flowages: Implement *Drawdown Management Plan.*	See Appendix G	

[1]This column identifies protective measures that NSPW committed to in formal plans that were prepared for the settlement or that are described in the text of the settlement; these measures are to be funded by NSPW, independent of the Chippewa River Protection and Restoration Fund.

[2]This column identifies the monetary contribution that NSPW shall make to the Chippewa River Protection and Restoration Fund and the potential or proposed environmental protection measures, projects or studies for which the funds shall be used. The specific allocation of these funds among the individual measures, projects or studies and the timing of expenditures shall be determined by the Implementation Team, except that the Fish Protection Fund shall be used solely for that purpose unless not spent within the first 20 yrs of the settlement (see Section 4.1.5.2).

Table 2 (continued).

ISSUE	AGREED TO PROTECTION MEASURE(S)	NSPW's MONETARY COMMITMENT TO FUND
3. FISH AND OTHER AQUATIC LIFE PROTECTION		
• Upstream fish passage	See Section 4.2	
• Downstream *Fish Protection Fund* (FPF): All projects; install, operate, maintain and study effectiveness of fish turbine protection measure(s), or implement alternative fish habitat project(s)		$1.25 M at license yr 0 $1.00 M at license yr 5 $1.00 M at license yr 10
Dells: Study feasibility of "fish friendly" turbines		$10,000
• Research/Effectiveness Studies:		
► Study introduction of forage fish species (Wissota)		$20,000
► Study biotic response to modified hydro operations:		
Dells tailwaters		$100,000
Jim Falls bypass channel		$10,000
Cornell tailwaters		$10,000
► Spawning assessments (Holcombe, Wissota & Dells)		$15,000
• Implement *Lake Sturgeon Mortality Plan*	See Appendix H	
• Habitat Enhancements:		
► Implement *Fish Stranding Remediation Plan* at Cornell, Wissota and Dells tailwaters	See Appendix I	
► All projects; Install fish cribs or other structures		$50,000
► Wissota backwater enlargement(s)		$50,000
► Enhance Lk. Holcombe backwaters by dredging, culvert installation, aeration, etc.		$50,000
► (Re)establish aquatic macrophyte beds at Wissota & Dells		$50,000
► Implement *Trash/Woody Debris Disposal Plan*	See Appendix J	
► Agency promotion of habitat enhncmt.		$5,000
4. LANDS MANAGEMENT		
• Implement Holcombe, Wissota and Dells *Land Management Plans.*	See Appendices N, O & P	
• Stabilize Class 1 erosion on Lake Holcombe	See Appendix Q	
• Implement *Shoreline Erosion Protection Plan*	See Appendix Q	
• Restore Ray's Beach and Island (Lake Wissota)	See Appendix Q	

Table 2 (continued).

ISSUE	AGREED TO PROTECTION MEASURE(S)	NSPW's MONETARY COMMITMENT TO FUND
5. WATER QUALITY MONITORING		
• Monitor WQ parameters in impoundment and tailwater locations (esp. DO in Holcombe backwaters post-enhancement)		$10,000
6. ENDANGERED AND THREATENED SPECIES		
• Implement *Bald Eagle Management Plan*	See Appendix K	
• Implement Land Management Plan provisions to protect E/T species habitats	See Appendices N, O & P	
• Mussel (re)introduction and/or Feasibility Study		$20,000
• Fish (re)introduction and/or Feasibility Study		$20,000
7. EXOTICS/NUISANCE SPECIES CONTROL		
• Implement *Exotics Control Plan*	See Appendix M	
• Conduct exotic/nuisance species public education program; access signage, etc.		$10,000
• Assist start-up of Dells tailwater purple loosestrife remediation effort		$10,000
8. RECREATION FACILITY IMPROVEMENTS		
• Implement Holcombe, Wissota and Dells *Recreational Facility Improvement Plans*	See Appendices R, S & T	
• Cooperate with agencies and local units of govt. and provide funding assistance for unidentified future recreation improvement projects	See Section 6.1	
• Develop recreational facilities brochure	See Section 6.3	
9. ADAPTIVE MANAGEMENT/CONTINGENCY		$60,000
TOTAL FOR NATURAL RESOURCE FUND:		$500,000
TOTAL FOR FISH PROTECTION FUND:		$3,250,000