

## Appendix A



## MEMORANDUM

**TO:** Mayor Toland and City Council

**FROM:** Raymond French, Management Analyst

**DATE:** October 20, 2014

**TITLE:** **Hydroelectric Licensing Update: Preliminary Financial Analysis and Recommended Options Analysis**

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### RECOMMENDED ACTION

No action required. This information is provided for reference prior to the December 9, 2014, Council Workshop on this issue.

### BACKGROUND

The City of River Falls currently holds a 30-year license from the Federal Energy Regulatory Commission (FERC) to operate the hydroelectric facilities at the Junction Falls (Upper) and Powell Falls (Lower) Dams. The license expires on August 31, 2018, and the City is finishing the first-stage of consultation under the requirements for relicensing.

To continue on this path, the City would use input from stakeholders to determine the resource studies necessary to submit an adequate application. The deadline for submitting a draft license application is January 2016.

Conversations have also been ongoing between staff and stakeholder groups concerned with the environmental and financial costs of continuing to operate the hydroelectric facilities and maintain the dams.

Staff conducted a preliminary analysis of the financial position of the hydroelectric operations to identify some basic financial feasibility assumptions before continuing with the full relicensing process.

### DISCUSSION

#### Financial Analysis

The data collected for this analysis was from public sources, such as the Utility's annual report to the Public Service Commission, throughout the term of the license period that began on September 1, 1989. The primary scope of the analysis looked at the cost to generate hydropower per kilowatt hour (kWh) against the cost to purchase wholesale power from WPPI Energy, the

City's wholesale power provider. The retail energy charge is also included to show that even when the cost to generate is more than the wholesale rate, it is still more often less than the rate at which the power is sold.

A similar calculation was also made to compare the cost to generate hydropower per kWh to the cost to purchase wholesale green energy from WPPI Energy. The green energy block program was created in 2001, allowing customers to purchase green energy blocks at a cost of \$0.02 per kWh in addition to the wholesale rate. In 2008 that rate was reduced to only an additional \$0.01 per kWh. There is a slightly reduced rate for bulk purchases, but these are rates typical of a residential rate-payer.

<b>Historical Rates for the Purchase and Generation of Energy*</b>				
	<b>Retail Energy Charge**</b>	<b>Wholesale Green Rate</b>	<b>Wholesale Rate</b>	<b>Cost to Generate</b>
1989	0.0570	-	0.0268	0.0273
1990	<b>0.0565</b>	-	0.0288	0.0621
1991	<b>0.0565</b>	-	0.0368	0.0616
1992	<b>0.0565</b>	-	0.0376	0.1187
1993	0.0565	-	0.0381	0.0380
1994	0.0565	-	0.0385	0.0323
1995	0.0565	-	0.0369	0.0553
1996	0.0565	-	0.0346	0.0337
1997	0.0565	-	0.0357	0.0313
1998	0.0586	-	0.0374	0.0283
1999	0.0586	-	0.0374	0.0420
2000	0.0586	-	0.0379	0.0237
2001	<b>0.0586</b>	0.0597	0.0397	0.0605
2002	0.0670	0.0607	0.0407	0.0603
2003	0.0670	0.0615	0.0415	0.0345
2004	0.0670	0.0638	0.0438	0.0404
2005	0.0670	0.0722	0.0522	0.0538
2006	<b>0.0670</b>	0.0724	0.0524	0.1293
2007	<b>0.0670</b>	0.0787	0.0587	0.0722
2008	<b>0.0977</b>	0.0753	0.0653	0.0995
2009	0.0977	0.0794	0.0694	0.0787
2010	<b>0.0977</b>	0.0864	0.0764	0.1152
2011	0.0977	0.0889	0.0789	0.0627
2012	0.0977	0.0905	0.0805	0.0532
2013	0.0977	0.0901	0.0801	0.0542

\* The shaded numbers are the higher costs in each comparison.

\*\* The bolded numbers are for years that the retail charge was less than the cost to generate.

Over the license term, the cost to generate power at the hydroelectric facilities has been more expensive than the cost to purchase power in 14 of the 25 years. When comparing it to the cost to purchase green energy, the costs to generate are only more expensive in 4 of the 13 years of the program.

It is important to note that in 17 of the 25 years, the cost to generate hydropower was less than the price at which it was sold. Therefore, while the hydroelectric facilities did not lose money during the license term, they did not produce as high of revenue for the electric utility had the City purchased the equivalent amount of non-green power generated.

Looking at the previous data of rates per kWh shows that the City's purchased power costs are rising steadily, while the costs to generate vary widely on an annual basis. The following table shows the average costs to generate power at key intervals during the license term compared to the average wholesale and green energy rates. Using the average costs provides a comparison that smooths out some of the variability in annual expenses.

	<b>1989-2013 (25 years)</b>	<b>2004-2013 (last 10 years)</b>	<b>2009-2013 (last 5 years)</b>	<b>2012-2013 (last 2 years)</b>
<b>Average Cost per kWh to Generate</b>	0.0524	0.0706	0.0682	0.0536
<b>Average Wholesale Rate per kWh</b>	0.0482	0.0699	0.0770	0.0803
<b>Average Cost per kWh to Generate</b>	X	X	0.0682	0.0536
<b>Average Green Energy Rate (+\$0.01)</b>	X	X	0.0870	0.0903

The above data shows that the costs to generate hydropower and the costs to purchase are more comparable over the long-term. Additionally, the municipal hydroelectric facilities are, on average, a more affordable and local option than the bulk purchase of green energies.

A forecast was also prepared using the last 10 years of operating and maintenance expenses and the trend in wholesale power rates. The forecast includes \$100,000 for the relicensing process.

	<b>2014-2018 (next 5 years)</b>	<b>2014-2023 (next 10 years)</b>
<b>Average Cost per kWh to Generate</b>	0.0904	0.0830
<b>Average Wholesale Rate (est. 3%)</b>	0.0876	0.0946
<b>Average Cost per kWh to Generate</b>	0.0904	0.0830
<b>Average Green Energy Rate (+\$0.01)</b>	0.0976	0.1046

This preliminary analysis does not factor in any significant investment above the annual maintenance to the hydroelectric facilities or dams. However, wholesale electric rates have

doubled in the past ten years. If that trend continues and the costs of operating the hydroelectric facilities are contained, it is possible to operate the facilities at a net positive in the near future.

Another issue to note is that over the license term, the output of the hydroelectric facilities has decreased, showing up in the data as an increase in the cost per kWh generated. This is partly due to stricter procedures developed with stakeholder groups in the 1990s intended to preserve a smooth running Kinnickinnic River and comply with the run-of-the-river license requirement. A license amendment with the procedures was approved by FERC in 1999. Additionally, the costs of the hydroelectric facilities during 2012-2013 are a more accurate reflection of the current costs of operations. When the Municipal Power Plant was operated 24 hours per day prior to 2012, staff could more quickly respond to debris and changes in the flow of the river.

#### FERC Licensing Processes

In conjunction with a proposal received from the "Friends of the Kinni" organization, and because of the potential costs associated with relicensing and the ongoing operations of the hydroelectric facilities, staff began to research the additional processes available to current licensees provided for by FERC. Currently, the relicensing process is governed by:

- [18 U.S.C. Part 4](#). Licenses, Permits, Exemptions, and Determination of Project Costs.
  - This process would result in the relicensing of the hydroelectric facilities and their continued operation as the Council directs.

Other processes available to the City include:

- [18 U.S.C. Part 6](#). Surrender or Termination of License.
  - This process could lead to the decommissioning of the hydroelectric facilities and removal of the dams.
- [18 U.S.C. Part 9](#). Transfer of License or Lease of Project Property.
  - This process could lead to the transfer or lease of the hydroelectric facilities to another power provider.
- [18 U.S.C. §16.11](#). Nonpower Licenses.
  - This process could lead to the decommissioning of the hydroelectric facilities only.

#### Next Steps

Following a Request for Qualifications and evaluation, staff will be retaining TRC, a firm that specializes in hydroelectric licensing, to provide an analysis of the FERC licensing processes available the City, and their financial and environmental implications. This analysis will inform staff recommendations, which will be presented to the City Council at the December 9, 2014 workshop.

Staff continues to be mindful of the costs to residents and rate-payers, and the various impacts the presence of the hydroelectric facilities has on the community. Given the complexities of federal licensing requirements and its far-reaching consequences, it now makes sense to hire a consultant to guide us through the next steps and various processes available to the City. A

consultant was initially considered to assist in the first stage of consultation for relicensing. At the time, a proposal received from a qualified firm quoted \$66,350 for that stage, an amount the City saved by facilitating that stage of the process in-house. The City will be retaining TRC at a cost of about \$20,000.

## **CONCLUSION**

The preliminary financial analysis shows that the average costs of generation over the license term are more than the average cost to purchase wholesale power. The major factors impacting that comparison are the widely variable cost per kWh to generate hydropower and the steadily increasing wholesale power costs.

Despite this, when considered as a renewable resource, the municipal hydroelectric facilities are, on average, a more affordable and local option than the bulk purchase of green energies.

While the last few years of generation have been positive, the future costs to generate are unknown and wholesale electric rates are expected to continue to rise. Due to these factors, the question remains unanswered regarding the best financial option for residents and rate-payers.

Staff will be retaining TRC to provide an analysis of the options available to the City, to assist Council decision-making based on the real costs associated with each licensing option and the future of the hydroelectric facilities.

## MEMORANDUM

**TO:** Mayor Toland and City Council

**FROM:** Raymond French, Management Analyst

**DATE:** January 13, 2015

**TITLE:** **Resolution Approving Hydroelectric Licensing and Kinnickinnic River Corridor Planning Strategy**

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### RECOMMENDED ACTION

Adopt the resolution that provides staff direction regarding the hydroelectric licensing process including:

- a. endorsing a draft Kinnickinnic River Corridor Planning strategy,
- b. setting aside gains from operation toward plan implementation, and
- c. increasing financial oversight by the Utility Advisory Board of expenditures related to hydroelectric facilities during the planning process timeframe.

### BACKGROUND

At the December 9, 2014, Workshop, the Utility Advisory Board (UAB) and City Council were presented with a summary of the hydroelectric licensing options from the City's consultant, Rita Hayen of TRC. Also discussed was the financial performance and history of hydroelectric operations.

A continuation of the workshop will occur on January 13 prior to the City Council meeting. City Council members indicated a desire to have a working resolution to consider as soon as the January 13 City Council meeting that outlines direction for staff.

### DISCUSSION

#### Options

The licensing options discussed at the December 9 Workshop were:

1. Federal Energy Regulatory Commission (FERC) License Extension
2. FERC License Application (Full Relicense)
3. FERC License Application with Settlement Agreement
4. FERC License Surrender with Facilities in Place
5. FERC License Surrender with Dam Removal

### Council Priorities

The priorities of City Council when considering options appear to be (1) providing opportunities for wide and thorough community input; (2) retaining flexibility for future decision making; and (3) spending limited resources wisely.

### Kinnickinnic River Corridor Planning

The primary purpose of the licensing path is to provide the time necessary to complete the Kinnickinnic River Corridor Plan. The Kinnickinnic River corridor has also been identified as a strategic initiative of the City Council through the adoption of the 2015 Strategic Plan.

Incorporating the hydroelectric facilities into the overall corridor planning process allows for the community to drive the decision of whether to continue generating power and leave the facilities in place. The process timeline outlined on the next page will be used by staff to document the benefits of granting a license extension in the application to FERC.

Finally, because there is no compelling financial incentive of immediately rushing into relicense or surrender of the hydroelectric facilities, staff recommends Council support a more deliberative process like what is detailed above in the Kinnickinnic River Corridor Planning process.

### Recommendation for License Extension

To meet the goals of the community reflected by the City Council, as outlined in the priorities above, staff recommends that a five to ten-year license extension is the best option. A draft timeline for an approximately 7½ year license extension follows on the next page as Exhibit 1.

The timeline allows for preliminary preparation period, followed by a thorough community planning process for the Kinnickinnic River corridor beginning in 2016. The corridor planning period would result in an adopted Kinnickinnic River Corridor Plan on or about January 1, 2020. The Plan would be adopted prior to the required time at which FERC requires notification of whether a licensee intends to relicense their project.

Exhibit 1 -DRAFT KINNICKINNIC RIVER CORRIDOR STRATEGY & TIMELINE

Year	License Extension to December 31, 2025	Phase
2015	<p>February – Preliminary studies planned with stakeholders</p> <ul style="list-style-type: none"> <li>· Likely related to sediment and recreation</li> </ul> <p>May – FERC grants license extension</p> <p>July – Glen and Hoffman Park Master Plans adopted (current Park plans)</p> <p>Spring/Summer – Preliminary studies completed</p> <p>Summer/Fall – RFP and Selection of River Corridor Planning consultant</p>	Preliminary
2016	<p>Beginning of community process for Kinnickinnic River Corridor Plan</p> <ul style="list-style-type: none"> <li>· Planning group formed: identifying Vision/Mission and Goals</li> <li>· Engaging in issue identification, assessing existing conditions, and breaking down objectives</li> <li>· Public communication throughout: newsletters, social media, etc.</li> </ul>	Kinnickinnic River Corridor Planning
2017	<p>Through Spring, continuing preliminary analysis for planning process.</p> <p>Public input process beginning in Spring/Summer</p> <ul style="list-style-type: none"> <li>· Establishing working groups</li> <li>· Publishing surveys</li> <li>· Community meetings and open houses</li> </ul>	
2018	<p>Begin preparing summary reports/drafts to the Corridor Planning Group</p> <ul style="list-style-type: none"> <li>· Drafts prepared for each section of the Plan</li> </ul> <p>Continue public input meetings on drafts of Plan</p> <p>Continue Plan review by Corridor Planning Group</p>	
2019	<p>Development and of action and funding plans.</p> <p><b>Kinnickinnic River Corridor Plan</b> recommendation finalized and sent to Boards and City Council for approval.</p>	
2020	<p><b>Kinnickinnic River Corridor Plan:</b></p> <ul style="list-style-type: none"> <li>· Adopted by Boards and City Council by January 1, 2020</li> </ul> <p><b>Between July 1 and December 31, 2020:</b></p> <ul style="list-style-type: none"> <li>· Must notify FERC whether licensee intends to file or not to file an application for a new license (<a href="#">18 C.F.R. §16.6</a>)</li> <li>· If continued licensing of hydros selected, must submit Pre-Application Document at time of notice of intent</li> <li>· If eventual surrender is selected, within 90 days from notice, must file a schedule for the filing of a surrender application</li> </ul>	Future FERC licensing/surrender process
2021	Continuing licensing process or preparing for surrender of license and decommissioning of facilities.	
2022		
2023		
2024	<p>If surrendering:</p> <ul style="list-style-type: none"> <li>· After December 31, 2023, FERC provides existing licensee with written notice that no timely applications for the project have been filed. (<a href="#">18 C.F.R. §16.26(a)</a>)</li> <li>· Preparing Surrender Application (<a href="#">18 C.F.R. §§6.1-6.5</a>)</li> </ul>	
2025	<b>License expires December 31, 2025</b>	

Hydroelectric Operations Financials

The long-term financial impact of the hydroelectric operations on the Electric Utility and rate-payers is minimal under current conditions. Throughout the course of the current license, the hydroelectric facilities have consistently operated with positive cash flows. However, when compared to the cost of purchasing and selling non-renewable energy as a replacement for that generated power over the license period, the hydroelectric facilities generate less revenue.

The hydroelectric facilities are a small percentage of the Electric Utility’s power generation, revenues, and expenses. This allows a decision on the future of operations and the vision for the Kinnickinnic River to include a broader community discussion than just the financials. Financials do not appear to be a limiting factor in future decisions nor do they lend themselves to any immediate action to modify resulting net income.

At the December 9 Workshop, cost estimates and the expected “payback” were also presented to the UAB and Council. The following chart shows the estimated high and low costs of studies and licensing costs for each option, and the estimated year of payback based on the current financial performance of the hydroelectric facilities:

<b>OPTIONS</b>	<b>LOW</b>	<b>PAYBACK</b>	<b>HIGH</b>	<b>PAYBACK</b>
<b>License Extension</b>	\$2,000	Immediate	\$223,000	2019
<b>Relicense</b>	\$218,000	2019	\$444,000	2021
<b>Relicense (w/ Agreement)</b>	\$191,000	2018	\$397,000	2021
<b>Surrender (w/ Facilities)</b>	\$24,000	Immediate	\$236,000	2019
<b>Surrender (w/ Removal)</b>	\$660,600	2023	\$4,450,000	None

It is important to note that for all but the last option, the estimated costs for the first four options are only the immediate costs for environmental studies and licensing. They do not include the future estimated costs for maintenance or the final disposition of the facilities.

Option 5, on the other hand, includes the costs of studies and the narrow scope of the removal of the hydroelectric facilities outside of the development of a future Kinnickinnic River Corridor Plan. The high payback number on dam removal is due to the unknown necessity and costs related to potential sediment removal.

The payback year in the table above was determined by adding the option’s expense to a forecast of the future revenues and expenditures of operations, based on the current conditions of the facilities, and is the year the accumulated net revenues since 2015 become positive.

Continued Fiscal Planning

Also a point of discussion at the last workshop was placing a so-called “Do Not Resuscitate” order on the hydroelectric facilities. The initial financial analysis of the hydroelectric facilities concluded that they currently have a positive cash flow. However, years that include a

significant expenditure for the maintenance of the facilities quickly turn the annual balance from positive to negative. As the City enters into a more comprehensive planning process that will conclusively identify the future disposition of the facilities, it is prudent for there to be additional review to maintain the financial viability of the facilities.

In addition to current purchasing and expenditure authority policies, the Council may wish to consider adding a much lower threshold for expenditures than the current \$25,000 authority the Utility Division currently enjoys. A lower threshold could be monitored by a representative citizen board in the form of the Utility Advisory Board throughout the extension period in the following manner:

- Expenditures for repairs and maintenance of the hydroelectric facilities and the dams of \$5,000 or greater require prior approval of the Utility Advisory Board.

Currently, the hydroelectric facilities contribute approximately \$50,000 - \$70,000 per year to Electric Fund balance. Over the course of ten years, this could result in \$500,000 to \$700,000 in funding for resulting implementation of actions outlined in the adopted 2020 Plan. Therefore, Council may wish to commit net cash revenues of the hydroelectric operations as discussed in a separate memorandum report.

## **CONCLUSION**

In the interest of retaining the community's flexibility in determining the future vision of Kinnickinnic River Corridor and for responsible financial stewardship, staff recommends that the Council pursues a license extension request from FERC, in consultation with the regional resource agencies and stakeholders.

Staff recommends Council adopt the attached resolution that supports a license extension request for the hydroelectric facilities, supports the Kinnickinnic River Corridor Planning Process, and enhances the responsible fiscal management of the hydroelectric facilities.



RESOLUTION NO. 5906

**RESOLUTION APPROVING HYDROELECTRIC LICENSING  
AND KINNICKINNIC RIVER CORRIDOR PLANNING STRATEGY**

**WHEREAS**, City staff, the Utility Advisory Board, and City Council have reviewed the licensing options available for the River Falls Hydroelectric Project; and

**WHEREAS**, the priorities of the City Council are to provide opportunities for wide and thorough community input, retaining flexibility for future decision making, and spending limited resources wisely; and

**WHEREAS**, the City Council is not prepared to immediately surrender the license; and

**WHEREAS**, the City Council does not expect that a full license renewal is the likely path to be taken; and

**WHEREAS**, a license extension provides the greatest flexibility and allows adequate time for a thorough and comprehensive community planning process for the Kinnickinnic River Corridor; and

**WHEREAS**, the hydroelectric facilities are currently providing positive cash flow,

**WHEREAS**, significant expenditures for repair or maintenance would likely result in negative cash flow,

**WHEREAS**, additional financial monitoring is recommended so that significant maintenance expenditures are reviewed to maintain the financial viability of the facilities while the community process is undertaken;

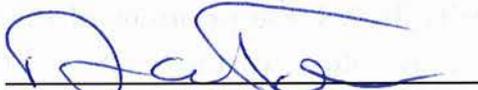
**NOW, THEREFORE, BE IT RESOLVED** that the Common Council of the City of River Falls supports a license extension request to the Federal Energy Regulatory Commission for the River Falls Hydroelectric Project (P-10489); and

**BE IT FURTHER RESOLVED** that the Common Council of the City of River Falls supports the Kinnickinnic River Corridor Planning process; and

**BE IT FURTHER RESOLVED** that the Common Council of the City of River Falls, in addition to current purchasing and expenditure authority policies, approves the following review of hydroelectric facilities maintenance expenditures during the extension period:

- Expenditures for repairs and maintenance of the hydroelectric facilities and the dams of \$5,000 or greater require prior approval of the Utility Advisory Board.

Dated this 13th day of January, 2015.

  
\_\_\_\_\_  
Dan Toland, Mayor

ATTEST:

  
\_\_\_\_\_  
Lu Ann Hecht, City Clerk



## MEMORANDUM

**TO:** Mayor Toland and City Council

**FROM:** Raymond French, Management Analyst

**DATE:** January 13, 2015

**TITLE:** **Resolution Approving Commitment of Fund Balance and Net Position**

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### RECOMMENDED ACTION

Adopt the resolution approving the commitment of net cash revenues related to hydroelectric operations in the Electric fund, and Park Land Dedication fees collected in the Park Land Dedication fund. Committing these balances provides an additional level of reporting that the balances are designated for a specific purpose.

### BACKGROUND

The City of River Falls previously updated the terminology used for fund balance reporting on the balance sheets of Governmental Funds in accordance with the Governmental Accounting Standards Board (GASB) Statement No. 54. That statement requires certain terminology to be used in fund balance reporting to improve transparency and accountability in financial statement presentation.

Fund balances are the balances in a fund at the end of the fiscal year, usually a positive balance, but sometimes a deficit balance for various reasons. Positive fund balances are acquired by increased revenues over expenditures by one or more years. Fund balances are typically reported as:

- non-spendable (typically inventory),
- restricted (by external agreements),
- **committed** (by the governing body),
- assigned (governments' intended use), and
- **unassigned/unrestricted** (surplus).

The term **net position** is used in lieu of fund balance for the City's enterprise funds, including the Electric Fund.

## **DISCUSSION**

### Electric Fund - Hydroelectric Operations

The hydroelectric facilities have traditionally operated as a separate department within the Electric Fund. There are likely significant costs associated with the possible future surrender requirements related to the disposition of the hydroelectric facilities.

On a cash basis, the hydroelectric facilities are currently operating with positive net position. Currently, this just adds to the overall net position of the electric utility and the balance is reported as unrestricted. While considering options for the future of the hydroelectric facilities, including potential surrender and dam removal, coupled with the current positive cash flow, it may be desirable to commit those net cash revenues to future costs related to the hydroelectric project. Staff recommends that the City Council approve the commitment of Electric Fund – Hydroelectric Operations net cash revenues beginning on January 1, 2015.

### Park Land Dedication Fees

Park Land Dedication Fees are currently collected per the Municipal Code [Ordinance 16.20](#) and are reported as a separate fund. As part of the 2015 Strategic Plan adopted by the City Council, one strategic initiative supporting the goal of Connecting Community Members is that of *Positioning our Parks for the Future*.

To assist in the future park planning efforts, the Park Land Dedication Fees collected may be committed for the purpose of funding the projects and initiatives that result from the planning efforts.

## **FINANCIAL CONSIDERATIONS**

The actual fund balances will not be impacted by these commitments, only how those areas are reported.

## **CONCLUSION**

Staff recommends the City Council adopt the resolution approving the commitment of net position for the Electric Fund – Hydroelectric Operations and the fund balance of the Park Land Dedication Fund. This action will better distinguish net assets gained from the hydroelectric facilities, and better position our parks for the future per the improved reporting of Park Land Dedication Fees.



RESOLUTION NO. 5907

**RESOLUTION APPROVING COMMITMENT  
OF FUND BALANCES AND NET POSITION**

**WHEREAS**, the City of River Falls previously updated the terminology used for fund balance reporting on the balance sheets of Governmental Funds in accordance with the Governmental Accounting Standards Board (GASB) Statement No. 54; and

**WHEREAS**, it has become necessary to commit the net cash revenues of the hydroelectric operations of the Electric Fund in order to facilitate the adequate financing of future projects; and

**WHEREAS**, to assist in future park planning efforts, the Park Land Dedication Fees collected per Ordinance 16.20 should also be committed to future park land and improvement projects; and

**WHEREAS**, the commitment of net position of the Electric Fund-Hydroelectric Operations beginning on January 1, 2015, and fund balance of the Park Land Dedication Fund are recommended for approval by the City Council;

**NOW, THEREFORE, BE IT RESOLVED** that the Common Council of the City of River Falls hereby approves the above fund and net position commitments.

Dated this 13th day of January, 2015.

A blue ink signature of Dan Toland, consisting of a large, stylized 'D' followed by a series of loops and a horizontal line at the end.

Dan Toland, Mayor

ATTEST:

A blue ink signature of Lu Ann Hecht, written in a cursive style.

Lu Ann Hecht, City Clerk

## Appendix B

**Notes from Conference Call regarding Project Licensing & Kinnickinnic River Planning**  
*River Falls Hydroelectric Project | P-10489*  
*January 30, 2015*

**Participants:** Dan Helsel, Wisconsin Department of Natural Resources  
Randy Thoreson, U.S. National Park Service  
Nick Utrup, U.S. Fish and Wildlife Service  
Scot Simpson, City of River Falls  
Ray French, City of River Falls

**Review of Process and City Council Action**

Scot and Ray reviewed the City's process and steps since the comments and study requests were due on May 23, 2014. Conversations continued over the summer with local stakeholders on their environmental concerns for the project and alternatives to relicensing. The City also conducted a preliminary financial analysis of operations from over the course of the license. In light of that analysis, the City hired Rita Hayen from TRC to continue with a licensing alternatives analysis with related cost estimates.

The results of the licensing analysis and costs were presented to the City Council and Utility Advisory Board on December 9, 2014. Following a second workshop, the Council adopted two resolutions on the matter on January 13, 2015. The resolutions, consistent with their adopted 2015 Strategic Plan, endorse the Kinnickinnic River Corridor Planning Strategy & Timeline (provided prior to the call) and direct staff to pursue a license extension. They also adopted additional hydro maintenance expenditure review, and established annual reporting requirements for the hydroelectric operations revenues, which are to be set aside for future projects.

The Corridor Plan was endorsed by the City Council in order to take a step back from licensing to develop a plan for the whole river within the City's boundaries. It recognizes the need for comprehensive community input and to retain flexibility for future decision making.

**FERC Process Concerns**

Randy said that as a community, River Falls has come a long way in this process and is moving forward. He pointed out that the City has to follow the FERC process steps. He is concerned that they haven't heard back from the City on study requests. Requesting an extension alone without addressing the study requests won't cut it. Randy said he would like more communication on process.

Scot said that the City hasn't missed any deadlines, and that all of the steps the City has taken have been public and part of the City's process.

Nick brought up the selection of processes that occurred in the beginning of relicensing. He also indicated they would have expected to see a scoping document by now. Nick said that some of the community's questions could have been answered better in the Integrated Licensing Process and through a scoping document.

Scot emphasized the City isn't a typical licensee like an investor-owned utility. The City is in a unique position to evaluate whether hydropower is right for the community instead of this being just a business decision. He stated that all actions the City has taken are public and the questions are public questions too. The City isn't just staff; it is the community at large.

Nick clarified that in the ILP, an alternatives analysis is incorporated into pre-planning. Effectively, the City is infusing the ILP into the TLP. He referenced the Menomonie River settlement agreement. The stakeholders agreed on a process that was a good path forward. Randy continued with more discussion on the two processes.

Scot indicated that more detail on the process could be provided and that the City wants to find a way to get to a decision. They are asking the resource agencies for their thoughts on the strategy.

### **Discussion of Draft Kinnickinnic River Corridor Strategy**

Discussion continued into the draft Kinnickinnic River Corridor Planning Process. Nick identified two basic approaches to the process: business and environmental. Scot said that this process reflects that the community is not ready for a decision in the short term and that it gives the City a chance to determine what the decision is.

Randy added that what has been missing from the process so far is an education on what dam removal involves. The corridor plan is a good vehicle for that education. Randy offered his expertise to serve as a technical advisor in the corridor planning.

Scot indicated that the draft strategy gives the community a chance to make a decision on the dams. The City would also incorporate many of the study requests into the corridor plan. More information is needed.

Nick agreed that this is more complex than a typical project. He thought it would be helpful for the City to lay out two alternative processes/timelines – one with relicensing and one with dam removal/surrender. That would lead to a better understanding of what the City is proposing.

Randy suggested the City should find out from FERC if they have a problem with this proposal. Ray said that conversations have continued with FERC. Scot said that the City needs an extension in order to make the best decision for the community.

Nick said that the City needs to spell out the process better so that they could support the extension request. Nick also clarified that the studies completed as part of the corridor plan would be outside the FERC process. Any future FERC studies would take precedence over the corridor plan studies.

Dan said he appreciates the City taking a step back to think about the waterway. He thinks that this is better than following a process that leads to a bad decision.

### **Next Steps**

Scot said that the City would (1) expand the draft strategy document to provide more information on when the decision point occurs and how that determines the next steps related to the license.

The revised strategy document would honor the FERC process requirements while also setting a realistic timeframe. The City will then (2) circulate the extension request for comment with a follow-up opportunity for stakeholders to comment.

There was further discussion on how to incorporate the study requests into the planning process and answer the community's questions.

Lastly, there was agreement on the next steps among the participants with a request to review the updated process prior to the follow-up conversation. Communication is expected in about two weeks.

**DRAFT KINNICKINNIC RIVER CORRIDOR STRATEGY & TIMELINE**

Year	Kinnickinnic River Corridor & Other City Planning	FERC Licensing Requirements <b>Relicense</b>	FERC Licensing Requirements <b>Surrender</b>
2015	<p><b>Spring:</b> Preliminary studies planned with stakeholders</p> <p><b>Spring-Fall:</b> Preliminary studies completed</p> <p><b>July:</b> Glen and Hoffman Park Master Plans adopted</p> <p><b>Fall:</b> RFP and Selection of River Corridor Planning consultant (by end of year)</p>	<p><b>March:</b> City submits license amendment to extend date of license.</p> <p><b>Summer:</b> FERC grants license extension</p>	
2016	<p><b>Winter/Spring:</b> Corridor Planning Group formed</p> <ul style="list-style-type: none"> <li>Identifying Vision/Mission and Goals; Issues</li> <li>Assessing existing conditions/gathering information</li> <li>Establishing Plan objectives</li> </ul> <p><b>Fall:</b> Begin community education efforts on aspects of the Plan (recreation, trails, hydro generation, dams, stormwater, etc)</p>		
2017	<p><b>Winter/Spring:</b> Continuing community education</p> <ul style="list-style-type: none"> <li>Establishing working groups</li> <li>Publishing surveys</li> <li>Community meetings and open houses</li> </ul> <p><b>Fall:</b> <i>Earliest decision point on whether to continue with hydro generation and dams to inform the draft Kinnickinnic River Corridor Plan.</i></p>	<p><b>Fall:</b> Community decision to support continuation of hydro generation at one or both of the facilities.</p>	<p><b>Fall:</b> Community decision to discontinue hydro generation and remove dams at one or both facilities.</p>
2018	<p><b>Winter/Spring:</b> Begin preparing summary reports/drafts to the Corridor Planning Group</p> <ul style="list-style-type: none"> <li>Drafts prepared for each section of the Plan</li> </ul> <p><b>Throughout year:</b> Continue public input meetings on drafts of Plan Continue Plan review by Corridor Planning Group</p>	<p><b>Between March 1 and August 31, 2018:</b></p> <ol style="list-style-type: none"> <li>Must notify FERC whether licensee intends to file or not to file an application for a new license</li> <li>Must submit Pre-Application Document at time of notice of intent (additional information generated from studies and community process)</li> </ol>	<p><b>Between March 1 and August 31, 2018:</b></p> <ol style="list-style-type: none"> <li>Must notify FERC whether licensee intends to file or not to file an application for a new license</li> <li>Within 90 days from notice, must file a schedule for the filing of a surrender application</li> </ol>
2019	Development and of action and funding plans. Kinnickinnic River Corridor Plan recommendation finalized and sent to Boards and City Council for approval.	Integrated Licensing Process	Preparing plan for surrender of license and decommissioning of facilities
2020	Kinnickinnic River Corridor Plan adopted by Boards and City Council by January 1, 2020		
2021			After August 31, 2021, FERC provides existing licensee with written notice that no timeline applications for the project have been filed.
2022			Continue preparing surrender application.
2023			<b>License expires August 31, 2023</b>

**Local Stakeholder Group Meeting regarding Hydroelectric  
Licensing & Kinnickinnic River Planning Strategy**

*River Falls Hydroelectric Project | P-10489*

*March 3, 2015*

**Participants:** Michael Page, Friends of the Kinni  
Dave Fodroczi, Kinnickinnic River Land Trust  
Gary Horvath, Trout Unlimited  
Jim Fossum, River Alliance of Wisconsin  
Randy Thoreson, U.S. National Park Service  
Scot Simpson, City of River Falls  
Ray French, City of River Falls

**Discussion of Communication Issues**

Scot began the meeting with a discussion of the confusion on stakeholder positions that developed after the Council meeting on January 13. He questioned their support for the resolutions but not the draft timeline, when the resolution supports the timeline/planning process.

Michael clarified support for the resolutions but not the draft timeline was expressed to Ray prior to the Council meeting. They supported the resolutions in that they call for greater attention and planning of the River corridor compared to just going down the path of relicensing. They do not support a process that extends the license more than 5 years, and needed more time to review the timeline prior to committing support. He and others thought they could support the resolutions as a positive step, but not the draft timeline in that form.

Gary added that the timeline and process needs to address the study requests. They cannot endorse a plan that ignores all of the study requests from the relicensing process. Discussion continued on what was meant in the draft timeline by “preliminary studies” and that the groups need to see how the studies will be incorporated into the planning process.

All parties acknowledged the miscommunication.

**Discussion of FERC Processes & Kinni Corridor Planning**

Randy emphasized that the City needs to be following the FERC processes. He also acknowledged feeling slighted that the City had not made progress on the Form-80 requirement following a meeting and conference call nearly a year ago on the issue. Ray clarified that the intent was to conduct the Form-80 recreation survey at the same time as the relicensing recreation study. Ray agreed to follow up with Randy and Mark Ivy from FERC on the status.

Dave continued that there has been a lack of “formal” discussion as part of the relicensing process. He expected the City would have formally communicated with stakeholders following the submission of study requests.

Dave added that they thought it was important they supported the resolutions because the door was left open for possible dam removal and river restoration. Now that they have had time to consider the resolutions, they have questions. He also recognizes the difference between the

resource agencies and local stakeholder groups in the FERC licensing process, and appreciates being at the table with the City.

Scot acknowledged that the City didn't do a good enough job stating that they had paused relicensing to take a step back to review what they were doing. He said he is results-oriented and focuses on getting the best result for the City.

Randy asked whether it makes sense for the City to request FERC change the City back to the integrated licensing process (ILP). He said the City has been following more of the integrated approach, so switching back to ILP would clean up the process, so to speak. Discussion continued regarding processes and identified that the City would likely use the ILP if it were to pursue a license, following a possible extension.

Jim asked clarifying questions on the draft timeline and how the City got to where it is. He said the River Alliance would prefer a 5 year extension over 7 ½ year extension.

Discussion continued on the use of studies as the Kinnickinnic River Corridor gets underway. Scot said he and Ray had already met with faculty from UW-River Falls on how they might assist or lead in completing studies, and how the Corridor planning fits in the newly established Kinnickinnic Watershed Consortium. Randy said there is a need for more circling back so that all of the stakeholders know the steps each are taking.

Gary said he is concerned that studies may occur that are intended to satisfy the requirements of the study requests without the input of the requesting stakeholder. Ray assured the group that no studies will be completed for licensing without stakeholder input. Gary added that in the absence of communication, the information vacuum gets filled on its own.

### **Next Steps to Promote Collaboration & Takeaways**

In order keep all of the stakeholders informed, discussion led to whether a monthly meeting would be helpful. The following action steps were identified:

1. Organize monthly check-in meetings with stakeholders, moving to every other month over the summer.
2. Stakeholders will offer comments on the draft timeline in the next couple of weeks.
3. At the next meeting, aiming for early April, the group will review the draft license amendment application and revised process.
  - a. City staff will also circle back with the resource agencies.
  - b. Jim reminded the group of the public notice requirements of the licensing process.
  - c. The participants acknowledged that Tuesday mornings are not good, and that all stakeholders, including UWRF faculty and resource agencies, should be invited.

Scot also acknowledged the following takeaways from this conversation, with agreement from those present:

1. The Kinnickinnic River Corridor Plan is an acceptable path to take.
2. A five-year extension may be workable for the stakeholders.
3. The Traditional Licensing Process is not adequate for our needs.
4. We are committed to staying engaged together.

## KINNICKINNIC RIVER CORRIDOR PLAN

The River Falls City Council has identified the Kinnickinnic River Corridor as a strategic priority throughout the coming years. They have also adopted a timeline and strategy that results in the creation of a Kinnickinnic River Corridor Plan, which will guide the protection and development of the City's greatest resource. As the planning process comes into focus, funding will be planned to ensure a comprehensive study and education process for the community.

### 2015

#### *Spring/Summer*

To date, the City of River Falls has budgeted \$100,000 for the hydroelectric licensing process. In response to the input from stakeholders, the City will initiate an immediate consultation with stakeholders on the highest priority studies to be completed prior to the start of the planning process. The goal of these studies will be to inform the initial body of knowledge that will be drawn from by the future Corridor Planning Group.

#### *Fall*

City staff will be working with a consultant with experience in corridor planning to draft the Request for Proposals (RFP) for Phase 1 of the Kinnickinnic River Corridor Plan. Once the RFP is issued and proposals are received, staff will review the proposals and provide the public an opportunity to comment. The decision will be approved by the City Council.

The high-priority studies agreed upon by the City and stakeholders will continue to be conducted through the Fall and Winter until the Corridor Planning Group is formed.

### 2016

#### *Winter*

After the planning firm is hired, the Corridor Planning Group will be formed. This will begin Phase 1 of the planning process, which will end with an adopted Corridor Plan. Later phases will consist of the implementation activities.

#### *Spring/Summer*

The Corridor Planning Group begins work on:

- Identifying the Vision, Mission, and Goals of the Corridor Plan
- Engaging in issue-identification
- Assessing existing conditions and reviewing available information
- Establishing Plan objectives
- Identifying gaps in information that will be needed in order for a decision on the future of hydroelectric facilities

#### *Summer/Fall*

As the Corridor Planning Group continues to identify gaps in information, and in response to the concerns of stakeholders, at this time in the process the City commits to continuing to study and generate further data that will support a decision on the future of the hydroelectric facilities. This will continue through the Spring/Summer of 2017.

Stakeholders will continue to have input on this part of the information gathering process, but the Corridor Planning Group will approve the scope and schedule.

## **2017**

### *Winter/Spring*

At this time, the City, stakeholders, and planning firm will begin community education efforts on the various aspects of the Plan. Issue categories may be centered on hydroelectric generation and operations, future maintenance of the dams, storm water issues (Lake George Management Plan, downtown runoff, etc.), recreation opportunities (fishing, kayaking), trail systems (connections, types of trails), and natural resource concerns (species identification).

This part of the process will involve an extensive public outreach campaign that can include community meetings, open houses, surveys, and established working groups.

### *Summer*

The final stage of data gathering will be completed at this time. The results will be published online and provided to the Corridor Planning Group.

### *Fall*

After reviewing all of the available information and receiving recommendations from the Corridor Planning Group and others, the City Council will decide on whether to continue with hydroelectric generation and one or both of the facilities.

## **2018**

### *Winter/Spring*

The planning firm and City staff will begin preparing summary reports and drafts of the Plan to the Corridor Planning Group. The drafts will be prepared in sections based on each area of the Plan for their review.

### *Spring-Fall*

Public input meetings will continue throughout the year on the drafts of the Plan. Public input and the Corridor Planning Group will continue to shape the final Plan. A comprehensive draft of the final Kinnickinnic River Corridor Plan will be available by the end of 2018.

## **2019**

### *Winter/Spring*

The Corridor Planning Group, in consultation with the public, City Staff, and the planning firm, will draft an action and funding plan for the implementation of the final Kinnickinnic River Corridor Plan. Pending review and approval by the appropriate public boards and commissions, the City Council could adopt the Kinnickinnic River Corridor Plan as early as the Summer, 2019.

## FUTURE FERC LICENSING

The following table illustrates the licensing processes following the community decision of whether to continue hydro generation or remove one or both facilities. With license expiration on August 31, 2023, notice to FERC of intent to relicense or surrender would occur in mid-2018. Following approval of the Kinnickinnic River Corridor Plan and related implementation and funding plans, activities may commence in accordance with those plans.

In response to the input from stakeholders, the City of River Falls is requesting only a five-year extension of its hydroelectric license to August 31, 2023. That should provide adequate time for the study of corridor and a comprehensive public engagement and education process.

Year	FERC Licensing Requirements <b>Relicense</b>	FERC Licensing Requirements <b>Surrender</b>
2017	<b>End of Fall:</b> Community decision to support continuation of hydro generation at one or both of the facilities.	<b>End of Fall:</b> Community decision to discontinue hydro generation and remove dams at one or both facilities.
2018	<b>Between March 1 and August 31, 2018:</b> 1) Must notify FERC whether licensee intends to file or not to file an application for a new license 2) Must submit Pre-Application Document at time of notice of intent (more comprehensive information generated from studies that guided the Corridor Plan)	<b>Between March 1 and August 31, 2018:</b> 1) Must notify FERC whether licensee intends to file or not to file an application for a new license 2) Within 90 days from notice, must file a schedule for the filing of a surrender application
2019	[Integrated Licensing Process]	[Once the Kinnickinnic River Corridor Plan is adopted, actions may commence towards its implementation. Activities for surrender and dam removal will be contingent upon FERC surrender requirements and guided by the approved Corridor Implementation and Funding Plan.]
2020		
2021		
2022		
2023	<b>License expires August 31, 2023</b>	<b>License expires August 31, 2023</b>

**Stakeholder Meeting regarding Hydroelectric Licensing &  
Kinnickinnic River Corridor Planning Strategy**

*River Falls Hydroelectric Project | P-10489*

*April 9, 2015*

**Attendees:** Jim Fossum, River Alliance of Wisconsin  
Randy Thoreson, U.S. National Park Service  
Diane Odeen, City Council/Utility Advisory Board  
Francis Ogden, Resident  
Patricia La Rue, Resident/Park & Recreation Advisory Board  
Gary Horvath, Trout Unlimited  
Dan Wilcox, Trout Unlimited  
Michael Page, Friends of the Kinni  
Peter Dahm, Kinnickinnic River Land Trust  
Dave Fodroczi, Kinnickinnic River Land Trust  
Jarrod Blades, UWRF  
Jill Coleman Wasik, UWRF  
David Babcock, Resident  
Denny Canef, Wi River Alliance (phone)  
Cheryl Latsch, WiDNR (phone)  
Dan Helsel, WiDNR (phone)  
Scot Simpson, City of River Falls  
Ray French, City of River Falls

**Introductions**

The meeting began with introductions of all attendees, in person and by phone.

**Update of draft Kinnickinnic River Corridor Plan**

Ray discussed an update to the draft Kinnickinnic River Corridor planning process. In response to the concerns from stakeholders, the license extension to be requested was reduced from seven and a half years to five years. The City is also committing to work with stakeholders to identify the highest priority studies to begin in 2015 that will best inform the Corridor Planning Process.

The Corridor Plan timeline was expanded to describe the process of Corridor Planning and the deadline of fall, 2017 for the community decision on whether to continue with hydroelectric generation at one or both of the facilities. The “Future FERC Licensing” process was also expanded to show how the community decision restarts the relicensing or surrender processes. Also in response to stakeholder concerns, the surrender process was clarified to state that as the Corridor Plan is adopted, actions may begin as funds are available for the surrender of the license and removal of the dam(s). Those actions would be dependent upon FERC surrender requirements and guided by the implementation plans.

Scot opened the conversation by asking for comments and questions. Jarod asked if there was a concern about scaling the focus on the hydros to the whole Corridor in the planning process. Discussion continued on whether a decision on the hydros in the planning process is necessary

for the development of a plan. Peter added that the community needs to make an informed decision on whether to keep the hydros before a plan can be adopted.

Jim discussed the need for economic and other studies on dam removal to make the decision. There should also be an effort to make sure those studies are valid for multiple purposes because they will be expensive. Randy continued with there being a need for dedicated studies to inform the corridor planning.

Cheryl added that this is an excellent vision on how to proceed. She is concerned about FERC's acknowledgement of this process and whether there will be any compliance issues as we move forward. Gary continued that we are currently in the relicensing process and that stakeholders have not received a formal response on their study requests. Denny brought the conversation back that there needs to be a decision on the dams before a true corridor plan can be developed.

Michael asked whether extension is a viable option. Ray indicated that in conversations with FERC staff that a license extension is possible, even if it is generally uncommon. Michael discussed what questions we need to answer before making a decision on the dams. Dan H emphasized that we need to know in what context the information will be reported: relicensing or surrender.

Dave F discussed the need to develop a study strategy that gets us to 2017 and can support either relicensing or surrender following a decision on the dams.

Patricia talked about the need for consistent communication because there is already misinformation in the community. There needs to be concerted effort at educating the community on the issues.

### **Discussion of Next Steps for 2015 Studies**

Discussion continued on what information is needed to reach a decision and the resources available in the short and long-terms. Jarrod emphasized the need to rely on existing expertise within the watershed. There was consensus that a group should be convened to discuss the 2015 studies and to determine what information is needed to make a decision. There was also consensus that these meetings should continue.

Cheryl indicated that there should be a standard agenda and meeting times with adequate notice.

### **Other Updates**

Jarrold updated the group on the activities of the Kinnickinnic Watershed Consortium. They will be conducting focus groups that will inform a household survey. The subjects will be perceptions of the River and what people value.

Jill updated the group on student research in the project area. Subjects include invasive plant species, water quality (nutrient flux), and hydrologic residence time in the reservoirs.



*River Falls Hydroelectric Project / P-10489*  
*Draft: May 14, 2015*

## **Directed Studies to Begin Immediately**

### **Sediment Studies related to Dam Removal**

Following the alternatives analysis recently completed by the City's consultant at the end of 2014, there remained the question of the potential costs of dam removal regarding the quality of sediment in the impoundments. From written communications with stakeholders, this appears to be highest priority study that can inform the Kinnickinnic River Corridor Planning Process and the resulting decision about the future of the dams.

*Preliminary scope:* The scope of this project would include (1) a bathymetric survey and sediment probe survey to determine depth to bedrock in Lakes George and Louise;(2) calculating the sediment volumes in both lakes; and (3) taking sediment core samples for contaminant analysis. Contaminants include sediment oxygen demand, total phosphorus, ammonia nitrogen, trace metals (As, Cd, Cr, Cu, Hg, Ni, Pb, Zn), and organic compounds (PAHs, PCBs, and pesticides).

*Existing information:* There currently exists a bathymetric survey for Lake George from 2006 that we anticipate would be sufficient for the analysis. The existing sediment cores from Lake George taken in 1980 and 1990 would need to be updated.

*Next steps:* Staff has contacted TRC regarding possibly submitting a proposal for this work to build on their initial licensing and alternatives analysis. Using their expertise in evaluating dam removal, the scope would be agreed upon by staff, stakeholders, and TRC.

### **Recreational Use – Baseline**

The River Falls Hydroelectric Project currently faces the need to report recreational use within the project boundary for three purposes: (1) the Form 80 Recreation Report; (2) a recreational use survey regarding downstream conditions for an updated dam break analysis; and (3) providing baseline recreational information for future planning.

*Preliminary scope:* City staff is prepared to conduct this survey in-house:

- Develop a preliminary project boundary map
- Inventory available recreation options within the project area
- Form 80 Requirement:
  - Public Works staff will be observing peak use, once-per-day, on holiday weekends throughout the summer (Memorial Day, July 4, and Labor Day)
  - Hydro Operator will tally visitors observed per day and their activities when making rounds to the Upper and Lower Hydros
- Recreational Use Survey/Dam Break Analysis:
  - Coordinate data collection with outfitters that provide recreational opportunities below the Lower Dam (reported to FERC in September)
- These recording efforts and inventory will provide an adequate baseline for future corridor planning

# Hydroelectric Project Boundary Map



**Stakeholder Meeting regarding Hydroelectric Licensing &  
Kinnickinnic River Corridor Planning Strategy**

*River Falls Hydroelectric Project | P-10489*

*May 14, 2015*

**Attendees:** Peter Anderson, City Council  
Diane Odeen, City Council/Utility Advisory Board  
Patricia La Rue, Resident/Park & Recreation Advisory Board  
Dan Wilcox, Trout Unlimited  
Michael Page, Friends of the Kinni  
Peter Dahm, Kinnickinnic River Land Trust  
Dave Fodroczi, Kinnickinnic River Land Trust  
Jarrod Blades, UWRF  
Jill Coleman Wasik, UWRF  
David Babcock, Resident  
Marti Piepgras, Resident (phone)  
Denny Canef, Wi River Alliance (phone)  
Cheryl Latsch, WiDNR (phone)  
Weston Arndt, WPPI Energy  
Reid Wronski, City of River Falls  
Kevin Westhuis, City of River Falls  
Mike Noreen, City of River Falls  
Scot Simpson, City of River Falls  
Ray French, City of River Falls

**Introductions**

The meeting began with introductions of all attendees, in person and by phone.

**Discussion of Directed Studies – Sediment Survey**

Ray began by introducing the handout of [Directed Studies to Begin Immediately](#). The consensus of stakeholders and staff is that the biggest unanswered question for possible future dam removal or relicensing relates to the quality of the sediment in the reservoirs. This was the biggest challenge in getting a clear picture of for future costs in the licensing alternatives analysis. The primary issues to study are whether any of the sediment is contaminated, how much there is, and what would it cost to deal with it in the case of dam removal. The City has begun conversations with TRC to submit a proposal for this work.

Dan said that stakeholders needed to have the information provided at these meetings earlier than end of business day the day before the meeting. He asked for more timely and relevant communication than what they are receiving. He also acknowledged that the description of the study provided was not a project scope and that more information was needed.

Denny added that they would be concerned about TRC's expertise in completing the sediment analysis. He challenged their numbers for sediment removal as a part of the licensing analysis last fall. He recommended a company like Inter-Fluve for their expertise in dam removal.

Discussion continued on the importance for experimental design of the studies (Dan) and whether we should convene a technical advisory group to prepare the scope of work (Peter D.). Cheryl discussed the DNR Sediment Guidelines and the importance of DNR consultation in the study process and any dewatering situation.

There was consensus that a sediment study is the appropriate first step. Cheryl emphasized that this process still needs the consent of FERC. Discussion continued on the merits of using TRC or another consultant to conduct the study.

There was also discussion on how long the information from sediment studies would be good for, especially in the case of dam removal, beyond a certain number of years. Dan suggested a new bathymetric study of Lake George may even be needed. Cheryl added that there should be a clear understanding in the study process of what information would be used by FERC, the DNR, or stakeholders in various stages of the process. Others added that there are plenty of examples and guidelines for studying sediment.

Michael asked about a timeline for the extension. Ray indicated it is currently under review internally.

#### **Discussion of Directed Studies – Recreation Use Survey**

Discussion began regarding the recreation use survey and the [draft project boundary map](#) (8mb pdf). Ray discussed that there needed to be a new project boundary map drafting to guide the study process and any future licensing processes. The current project boundary map is insufficient for those purposes.

Jill asked if the recreation survey is intended to be just for a baseline of uses or if it will be guiding future use in the project boundary. Ray indicated that it is intended just to provide a baseline inventory and satisfy current license requirements.

Jarrod asked how this relates to the Kinnickinnic River Corridor Planning Boundary, which will incorporate the whole Kinnickinnic River through the City. Perhaps this project boundary and its initial studies could be part of the first phase of the corridor planning process. Cheryl emphasized the need for separate boundaries for the Corridor Plan and the FERC project boundary.

Dan suggested that the water and area affected by the dams is probably larger than what is on the map. Denny added that, while we are beginning the baseline recreational use survey, it may be useful to engage a landscape architect to envision and design recreation for after dam removal.

Diane thought that the draft project boundary map well identified the area necessary for study and to give an understanding of how the area is used recreationally. Peter D. added that the draft boundary is what is important now and that through the corridor planning process there can be more linkage to the other projects; this is a cumulative effort.

Michael discussed the need to measure what on-the-water recreational use may or may not be happening. Discussion continued on other possible uses. Dan emphasized the importance for a

professional and experimental design for a recreation survey, but that it is good the City is using existing resources to complete the baseline survey.

Patricia talked generally about the importance of taking our time with these studies and making sure we get all of the information we can to educate the community about hydropower and dams.

### **Other Comments/Updates**

Dan and Peter D. offered the expertise of the stakeholder groups in the design of the studies. There was additional discussion about whether to convene a technical advisory group.

Jarrold updated the group on the activities of the Kinnickinnic Watershed Consortium. The conducted focus groups with 45 people and presented their results at the recent St. Croix Summit [here](#). They will next be conducting a household survey in the watershed to measure the attitudes of the general public at-large versus the stakeholders that took part in the focus groups.

There was also discussion on what time of day would be best for these meeting with some interest in evening meetings.

**Stakeholder Meeting regarding Hydroelectric Licensing &  
Kinnickinnic River Corridor Planning Strategy**

*River Falls Hydroelectric Project | P-10489*

*June 25, 2015*

**Attendees:** Tim Thum, Utility Advisory Board  
Wayne Beebe, Utility Advisory Board  
Diane Odeen, City Council/Utility Advisory Board  
Patricia La Rue, Resident/Park & Recreation Advisory Board  
Dan Wilcox, Trout Unlimited  
Michael Page, Friends of the Kinni  
Peter Dahm, Kinnickinnic River Land Trust  
Dave Fodroczi, Kinnickinnic River Land Trust  
David Babcock, Resident  
Todd Johnson, UW-Extension/UWRF  
Jim Fossum, Wi River Alliance (phone)  
Denny Caneff, Wi River Alliance (phone)  
Dan Helsel, WiDNR (phone)  
Cheryl Latsch, WiDNR (phone)  
Reid Wronski, City of River Falls  
Kevin Westhuis, City of River Falls  
Mike Noreen, City of River Falls  
Ray French, City of River Falls

**Introductions**

Ray began the meeting reminding the group of the goal for these meetings: information sharing among stakeholders for activities surrounding the Kinnickinnic River and the hydroelectric relicensing. He also reminded the group that the City is still in the very early stages of corridor planning and that study will continue into the planning process, which is slated to begin in earnest in 2016. Next were introductions of all attendees, in person and by phone.

**Update on Draft License Amendment Application and Sediment Analysis RFP**

Ray continued with an update for the group on the draft application for amendment of the current hydroelectric license and the upcoming request for proposals (RFP) for sediment analysis.

The group of stakeholders and interested parties were sent an e-mail on June 12 that included links to the draft application and appendices on the City's website. Ray described the contents and summarized the arguments contained in the draft application and asked for comments from stakeholders by the end of week. The goal is have to the draft application submitted by the end of the month of June.

Once the application is submitted, FERC will let us know whether the application is complete and then open a 30 day public comment period on the license amendment. That is when stakeholders and individuals can submit formal comments on the application to FERC for their consideration. Following that period FERC will issue their decision.

A small group of stakeholders with expertise in the area were also sent a copy of the RFP for a sediment analysis with a request for comments on that as well. The RFP outlines the goal of the study, which is to determine the potential costs for sediment management in the case of dam removal. The deadline for submissions will be after the July 4<sup>th</sup> holiday, with review by a stakeholder group, and a formal recommendation for approval by the Utility Advisory Board at their July 20 meeting.

The proposal review group tentatively includes each of the following: (a) UW-River Falls faculty member; (b) representative of Kinnickinnic River Land Trust; (c) representative of Trout Unlimited Kiap-Tu-Wish; (d) representative of Friends of the Kinni; (e) River Falls City Engineer; and (f) Ray/project coordinator. Following any comments received today, the RFP will be published by the end of the day.

Following the updates, Patricia asked whether there will be time for other studies to consider alternatives. Ray indicated that there will more studies planned for evaluating dam removal and upgrades to the facilities, especially considering possible future license requirements if the City were to be issued a new license. Michael asked and clarified the timelines associated with the submitting the application and the RFP.

Peter suggested that the RFP was weak on specifics and needed more substance in order to be more effective. Ray indicated it was based on an RFP from another City with similar questions, and was written with the goal of giving the proposing firm flexibility on how to best answer the primary question. Reid agreed that the proposal was sufficient for that purpose. There was additional discussion on the process for reviewing and whether that group should meet to write the RFP.

Jim added that the RFP doesn't discuss any specific chemical or environmental testing of the sediment. Dan continued that the RFP should state the products of environmental data the City needs to receive as part of the study. The RFP should identify specific bathymetric, elevation, and survey data. Diane thought that the RFP clearly outlines that the City is looking for a partner who can work with the City on more than just the science. Dan agreed that the City needs a partner organization with experience, and maybe a complete dam removal feasibility study.

Reid and Peter continued the discussion on the balance in the process and RFP between sediment and future planning. Reid identified that right now we need answers to the sediment management question, and the RFP also seeks to ensure the firm has Wisconsin experience. Peter suggested the RFP needs to be expanded. Michael and Kevin agreed that the RFP is a component of a larger process. Ray reminded the group that he will accept any suggestions or comments on the RFP and application. Reid and Dan agreed that the 2006 bathymetric survey should be sufficient for the long term.

Denny added that the generally, the River Alliance endorses this process and the ideas for moving forward. He advised that the City should continue to take advantage of the expertise of the stakeholder groups. He also foresees that the River Alliance is likely to concur with the license amendment application.

## **Miscellaneous Topics**

Discussion continued on other issues, including the recreation survey. Dan advised that the recreation survey should have an experimental design to ensure a representative sample can be taken, and more than just a collection of observations. Michael and Ray discussed some of the recreation survey compliance needs of the City, particularly Form 80. Ray continued that the summer recreation survey is largely to get some baseline information and that a broader recreation survey on future recreation options will be part of the corridor planning process.

Peter advised that there is a line in the license amendment application that gives some members of the Land Trust pause, specifically, “provide for the continued financial sustainability...” of the hydros. Ray said that could likely be reworded and that it was intended to convey that additional oversight by the UAB as outlined in the Council resolution should help keep costs down and allow the City to retain more income for future projects related to the facilities.

Kevin and Diane added that nothing is predetermined in this process, so the continued financial sustainability of the hydros does not mean that we already know the hydros are staying. The intent is for this plan to reflect community values.

Denny thinks there is good communication to FERC on the purpose and vision of application and corridor planning process.

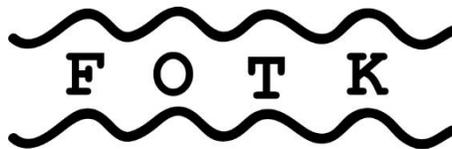
Dave asked about the missing Appendix D that will be a formal response to stakeholders on studies. Ray advised that this will be a formal response conveying information already available on the sediment and recreation studies. The additional studies will continue to be worked out as the planning process gets underway and the study requests will continue to be used as guide. Ray also acknowledged again that this is a slow process and that the City appreciates the patience of stakeholders.

Dan continued that it would be helpful to get the technical advisory group in place soon to help guide what those studies will be. Todd also provided input on the license amendment application and expressed interest in helping design the recreation survey with experts from UWRP.

## **Closing**

Ray thanked everyone for coming and indicated that the next meeting will likely be in early August and also during the FERC notice and comment period on the license amendment application.

## Appendix C



March 17<sup>th</sup>, 2015

Dr. Michael S. Page, Spokesperson  
The Friends of the Kinni  
315 N Fremont Street  
River Falls, WI 54022

Ray French, Management Analyst  
The City of River Falls  
222 Lewis Street  
River Falls, WI 54022

Re: Feedback for development of license amendment application

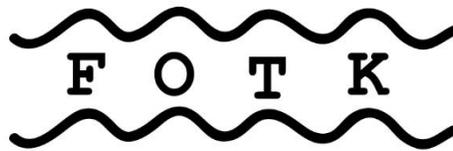
Dear Ray,

Thank you again for hosting the stakeholder meeting on March 3<sup>rd</sup> and for following up with the meeting synopsis. Your and Scot's interest in hearing from and working with local stakeholder organizations throughout this process is much appreciated. The many conversations that have taken place between The Friends of the Kinni and the City of River Falls have been impressively positive. Thank you for your willingness to listen and include our group in this discussion.

At this time we are dedicated to, and very interested in, working with the City on the development of a license extension application that we can support. We want to make this work, we want to be able to provide a supporting letter to accompany the application that is ultimately submitted to FERC. In order to reach this goal we are committed to working closely with you as this application is developed.

Attached is the "Amended Proposal" from the Friends of the Kinni dated January 7<sup>th</sup>, 2015. We previously submitted this amended proposal to yourself and Scot prior to the January 13<sup>th</sup> City Council meeting at which we supported the resolutions which were subsequently passed by the Council. This proposal calls for a 5 year license extension if more time is needed to make the decision of whether to pursue a new license or a surrender application. We see this as the greatest amount of time that might be necessary to make this decision, and if anything we feel this timeframe is more than adequate. We look forward to discussing this point further with you at our next meeting.

In reviewing the current "Draft Kinnickinnic River Corridor Strategy and Timeline" we would like to provide the following feedback. The target date for formation of the "Corridor Planning Group" is in the winter/spring of 2016. While the "RFP and Selection of River Corridor Planning consultant" is included in the timeline in the fall of 2015 (by end of year). Wouldn't it make sense to form the planning group



prior to the selection of a consultant so that the planning group could provide feedback and support in the selection process?

The selection of a consultant, or multiple consultants, is going to have a dramatic impact on this entire process. Do we know if a single consulting firm is going to be adequate for the needs of the corridor study? Do we have any initial thoughts of what types of consulting firms would be best suited for this project?

In your recent e-mail regarding stakeholder meetings dated March 13<sup>th</sup> you included an attachment entitled "Stakeholder List". This list includes the local stakeholder organizations, the resource agencies and two River Falls Residents. If other River Falls residents wish to be included in this group, how might they go about doing so? I have been contacted by a number of residents who are very interested in getting more involved in this discussion and as of yet have not had the opportunity. Please advise me as to how the two residents listed thus far were selected for inclusion, and how other interested residents might also be included.

We look forward to the continued discussion on the future of the Kinnickinnic River within the heart of our community. Please let me know if you have any questions or would like to chat prior to our next meeting.

Thank you,

A handwritten signature in black ink, appearing to read 'Michael S. Page', written in a cursive style.

Dr. Michael S. Page, Spokesperson  
The Friends of the Kinni

Enc: Amended Proposal, License Extension with Surrender Application

01/07/2015

Dr. Michael S Page, Spokesperson  
The Friends of the Kinni  
315 N Fremont Street  
River Falls, WI 54022

Scot Simpson, City Administrator  
Ray French, Management Analyst  
City of River Falls  
222 Lewis Street  
River Falls, WI 54022

Re: Amended Proposal, License Extension with Surrender Application

Dear Scot and Ray,

Greater insight into the FERC and the license surrender process has led to the amendment of our proposal from the Friends of the Kinni recommending license surrender. The amendment moves away from the recommendation of pursuing annual licenses if more time is desired, and instead recommends utilization of a license extension. We have been informed that annual licenses, while routinely utilized by FERC, are unusual to be utilized in conjunction with a license surrender application (5). If additional time is desired in order to reach our mutual goal, then a license extension for continued operation of the hydroelectric facility until 2023 should be utilized instead.

Thank you both again for your continued dedication to this project and open communication with all interested parties throughout. This course of action will allow for continued operation of the hydroelectric project until 2023, at which point the facility can be decommissioned, the dams removed and the Kinnickinnic River can be restored in its entirety. This plan allows for the avoidance of the relicensing process altogether, and instead shifts to an application for license extension which allows for continued operation until planning can occur for decommissioning of the hydropower project through a license surrender application.

Upon the initiation of this course of action the City of River Falls can count on the complete and substantial support from the Friends of the Kinni, and we can also garner support from the other stakeholder organizations; The Kinnickinnic River Land Trust, Trout Unlimited, the River Alliance of Wisconsin, American Rivers, the WI Department of Natural Resources, the National Park Service, and the US Fish and

Wildlife Service. The Friends of the Kinni will also offer a number of individuals willing to serve on the "Blue Ribbon Committee".

The Friends of the Kinni can provide services in helping to develop plans, identify and apply for grants, and directly raise funds for the associated expenses involved in the process. As previously discussed, there are two separate grants available from the WI Department of Natural Resources totaling \$450,000 of funds through the "dam removal grant program" and the "municipal dam grant program". We have also begun research into other varied and creative means of raising funds for dam removal, river restoration, and adjacent land restoration. Please see the addendum to this proposal which includes a preliminary list of potential funding sources.

The Federal Energy Regulatory Commission (FERC, the Commission) allows for decommissioning of a licensed hydroelectric project rather than relicensing when the project's license term expires (1). If the licensee chooses to pursue decommissioning rather than relicensing, they may rescind their application for relicensing and instead pursue an "application for license surrender" in accordance with section 6 of the Federal Power Act (2,3). An application for extension of the current license period would allow for the licensee to continue to operate the project beyond the expiration of the original license until 2023, while developing plans for the license surrender application and subsequent decommissioning of the facility.

Proposed Course of Action: License Extension and Surrender Application

- 1) Establish a "Blue Ribbon Committee" on the restoration of the Kinnickinnic River/Removal of the Dams. This Committee could be given the responsibility to:
  - a. Work with the RFMU, the FERC, and all stakeholder organizations to reach a Negotiated Settlement Agreement.
  - b. Develop estimates of associated costs and revenue sources for:
    - i. Facility decommissioning
    - ii. Removal of the dams
    - iii. Restoration of the Kinnickinnic River channel and floodplain.
    - iv. Development of adjacent land exposed as a result of draining the impoundments.
    - v. Urban runoff mitigation associated with the project.
- 2) Cease the current process of application for relicensing with FERC.

- 3) If more time is desired to reach the goal of river restoration through dam removal, apply to the FERC for a 5 year license extension under current license conditions allowing for operation of the hydroelectric facility until 2023.
- 4) Initiate an application with FERC for license surrender in accordance with goal date for decommissioning and dam removal.
- 5) Develop necessary engineering/environmental plans for decommissioning, dam removal, and restoration of the Kinnickinnic River.
- 6) Decommission the facility, remove the dams, and restore the river by the predetermined date.
  - a. Facility Decommissioning - Help implement the components of the FERC Surrender Order, which may include, but are not limited to the following:
    - i. Remove the dams and dispose of sediment, concrete, and other material in an environmentally acceptable manner
    - ii. Develop a plan to protect fish and other aquatic life during impoundment drawdown
    - iii. Restore the Kinnickinnic River channel and implement a bank stabilization plan
    - iv. Develop an environmentally friendly land use plan for adjacent land exposed as a result of draining the impoundments
    - v. Implement Urban runoff mitigation associated with the project

This option of pursuing license surrender and facility decommissioning with a potential license extension for continued hydropower generation until 2023 fits very well with both the City of River Falls' Comprehensive Plan and the goals of our organization.

Please consider this proposal. We would welcome the opportunity to discuss this course of action further.

Thank you,



Dr. Michael S Page, Spokesperson  
The Friends of the Kinni

## References:

1) *FERC Project Decommissioning at Relicensing; Policy Statement*. December 14, 1994.

<http://www.gpo.gov/fdsys/pkg/FR-1995-01-04/pdf/95-63.pdf>

2) *How to Surrender a License or Exemption*. FERC online General Information on Hydropower Administration and Compliance.

<http://www.ferc.gov/industries/hydropower/gen-info/comp-admin/surrender.asp>

3) *Surrender or Termination of a License*. Electronic Code of Federal Regulations, Title 18, Volume 1, Chapter 1, Subchapter B, Part 6.

<http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&SID=aa2dcc53fb34efbe29a1ffe32d23e848&n=pt18.1.6&r=PART&ty=HTML>

4) *Annual Licenses for Projects Subject to Sections 14 and 15 of the Federal Power Act*. Electronic Code of Federal Regulations, Title 18, Volume 1, Chapter 1, Subchapter B, Part 16, Subpart D.

[http://www.ecfr.gov/cgi-bin/text-idx?SID=f7a0530b022823964231adf6c9c0045a&node=se18.1.16\\_118&rgn=div8](http://www.ecfr.gov/cgi-bin/text-idx?SID=f7a0530b022823964231adf6c9c0045a&node=se18.1.16_118&rgn=div8)

5) Emery, Lee and Hocking, Steve. Personal interview during stakeholder conference call with FERC representatives, December 19, 2014.

## **Addendum: Funding Sources**

There are public grants available through:

- WI Department of Natural Resources
- US Fish and Wildlife Service
- US Environmental Protection Agency
- US Department of Agriculture
- US Department of the Interior Bureau of Reclamation
- US Department of Commerce
- US Army Corp of Engineers

There is also funding through private donors and foundations which have supported dam removal projects in the past, including:

- National Fish Habitat Initiative
- National Fish and Wildlife Foundation
- Trout Unlimited
- American Rivers
- FishAmerica Foundation
- Great Lakes Protection Fund
- Beneficia Foundation
- Gilbert and Ildiko Butler Foundation
- Compton Foundation
- French Foundation
- Richard and Rhoda Goldman Fund
- Robert and Dee Leggett
- National Fish and Wildlife Foundation
- New-Land Foundation
- River Guardians
- Surdna Foundation
- Town Creek Foundation
- Turner Foundation
- Patagonia, INC
- The Compton Foundation
- Coldwater Conservation Fund
- Andrew W. Mellon Foundation
- C.S. Mott Foundation
- Joyce Foundation
- Doris Duke Foundation
- Frey Foundation
- George Gund Foundation
- Pew Charitable Trusts
- Rockefeller Family Fund
- Surdna Foundation
- Weeden Foundation
- Wege Foundation



March 25, 2015

Mr. Raymond French, Management Analyst  
City of River Falls  
222 Lewis Street, Suite 202  
River Falls, WI 54022

Re: River Falls Hydroelectric Project, FERC No. 10489

Dear Mr. French:

Thank you inviting the River Alliance of Wisconsin to your 03/03/15 stakeholder meeting in River Falls. Most of the meeting was spent discussing the City of River Falls' (Licensee) proposal to file to the FERC a request to extend the current license. This would allow the Licensee, along with the Mayor, City Council and concerned stakeholders, adequate time to conduct Kinnickinnic River corridor planning. You provided a schedule for our review and stated that stakeholders could comment on the draft schedule and timeline for river corridor planning.

The River Alliance has reviewed your proposal and discussed it with the other stakeholders. We will support your proposal only under the following conditions, that:

1. The time period for a license extension not exceed five years from 2018 (the year that the current license expires).
2. The licensee conduct directed studies that seriously evaluate the options of either relicensing the project or surrendering the license with a plan to remove the dams.
3. The information generated from the economic and environmental studies be completed so the Licensee can make an informed decisions on which route to choose by the fall of 2017 (the target date for decision chosen by the Licensee).
4. The City of River Falls commit funding this year to hire the necessary consulting expertise to objectively evaluate the economic viability of the hydro project and/or the costs and implications of removing the dams. (This assessment would not be redundant to the TRC Solutions findings and report.)

Without the results of directed studies by 2017, we believe the timeline laid out by the Licensee is excessive and, if followed, would delay needed definitive action on the fate of the hydro project. When we say "directed studies," we refer to studies that we and many other stakeholders recommended nearly a year ago. While we recognize the need for and value of river corridor planning, the dams are the horse in this instance and the cart is the

planning process. It seems unwise and counterproductive to plan the corridor without specifically determining the fate of the dams first. Choosing to maintain or remove the dams would produce very different river corridor plans.

We appreciate the opportunity to comment on your draft schedule for river corridor planning and we look forward working with you in helping to develop plans of study to address the decisions that the Licensee intends to make by 2017.

Sincerely,

A handwritten signature in black ink, appearing to read "Denny Caneff". The signature is fluid and cursive, with a large initial "D" and a long, sweeping underline.

Denny Caneff  
Executive Director

Cc: Ms. Kimberly Bose, Secretary, FERC, Washington D.C.  
Scot Simpson, City Administrator, City of River Falls, WI  
Nick Utrup, U.S. Fish and Wildlife Service, Bloomington, MN  
Cheryl Laatsch, FERC Coordinator, Wisconsin DNR, Horicon, WI  
Randal Thoreson, National Park Service, St. Paul, MN  
Michael Page, Friends of the Kinni, River Falls, WI  
Keith Rodii, Friends of the Kinni, River Falls, WI  
Dave Fodroczi, Kinnickinnic River Land Trust, River Falls, WI  
Kent Johnson, Kiap-TU-Wish Chapter, Trout Unlimited, River Falls, WI  
Jim Fossum, JDFossum Environmental Consulting, Winona, MN



**KINNICKINNIC**  
River Land Trust

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Executive Director

**Kim Davis**  
Office Manager

We work with the community to conserve and protect the beauty and health of the Kinnickinnic River and its watershed.

March 26, 2015

Ray French, Management Analyst  
City of River Falls  
222 Lewis Street  
River Falls, WI 54022

RE: Comments on Draft Kinnickinnic River Corridor Strategy & Timeline

Dear Ray:

Many thanks to you and Scot Simpson for hosting our first hydroelectric facilities stakeholder meeting on March 3<sup>rd</sup>. We at the KRLT sincerely appreciate the open dialogue and look forward to continuing our conversation with regular meetings.

An important part of our discussion on March 3<sup>rd</sup> was the City's intended application for an extension of its license under FERC P-10489 based on the revised draft of the Kinnickinnic River Corridor Strategy & Timeline. Most of us at the meeting expressed general support for the concept of an extension of the current license to conduct some thoughtful community planning for the river corridor. However, most of us also expressed our concerns about the lack of specificity in the proposal, particularly as it relates to any proposed studies and the timeframe. Based on the feedback, you asked us for our comments.

Attached is my edited version of the Draft Kinnickinnic River Corridor Strategy & Timeline. I have included some specific edits in red and shaded portions of the process that I will address in yellow (Planning) and green (Surrender/Decommission). I refer to the attachment in my following comments that address both the content and timeframe of the strategy:

Content

1. Detail – The strategy is barely an annotated outline spanning nine years of significant work. It would be very helpful and informative to have more details on what, who, when and how for all of the pieces. There are several large blocks of time with little or no activity.
2. Studies – All of the stakeholder groups submitted a number of responsible and rational study requests as part of their comments on the City's Preliminary Application Document (PAD). These requested studies should be addressed in the strategy and timeline. With regard to these requested studies, we offer the following additional comments:



- a. Plans for the requested (DIRECTED) studies as part of the river corridor planning and relicensing/surrender options should be made as the first step in the process in the immediate future as preparation and justification for the City's application for license extension. I added this to the first step on the attachment.
- b. The DIRECTED studies agreed upon by the City and stakeholders should be scheduled and completed in 2016 and 2017 prior to and as part of the relicense/surrender decision. Only studies that are specific to one option (relicense or surrender) could/should be delayed until after the decision in 2017. There should be a conscious decision and strategy for how studies completed during the corridor planning process will support either option after the decision. I added steps to the strategy/timeline to begin in 2016 and complete in 2017.

### Timeframe

1. Kinnickinnic River Corridor Planning Process – I have shaded this process in yellow on the attached strategy/timeline. With some organizational work in 2015, this process would begin in 2016 and continue for four full years with anticipated plan adoption in late 2019. From the activities identified, it seems reasonable to compress this process to three years. It might not get to a relicense/surrender decision any sooner than Fall 2017, but implementation activities for dam related actions could begin as early as 2018.
2. License Surrender/Dam Removal & Restoration – I have shaded this process in green on the attached strategy/timeline. We are not sure why this is allocated five plus years to complete after the decision to pursue this option. Many examples of dam removal and restoration we have seen from other communities have taken much less time to complete. This option should be completed as soon as possible after the decision to surrender the license is made, subject to available resources and FERC process requirements for surrender. It should not take as long as the license renewal process and could reasonably happen as early as 2020.

Thank you again for the opportunity to submit these comments for your consideration as you refine the strategy and timeline. We look forward to addressing these issues as the City prepares an application to extend its current license under FERC P-10489.

Sincerely,



Dave Fodroczi  
Executive Director

Enc.

pc: Michael Page, Friends of the Kinni  
Gary Horvath, Kiap-TU-Wish Chapter, Trout Unlimited  
Denny Caneff, Wisconsin River Alliance  
Dan Helsel/Cheryl Laatsch, Wisconsin Department of Natural Resources  
Randy Thoreson, National Park Service  
Nick Utrup, U.S. Fish & Wildlife Service

**DRAFT KINNICKINNIC RIVER CORRIDOR STRATEGY & TIMELINE - KRLT COMMENTS, March 25, 2015**

Year	Kinnickinnic River Corridor & Other City Planning	FERC Licensing Requirements <b>Relicense</b>	FERC Licensing Requirements <b>Surrender</b>
2015	<p><b>Spring:</b> Preliminary &amp; DIRECTED studies planned with stakeholders</p> <p><b>Spring-Fall:</b> Preliminary studies completed</p> <p><b>July:</b> Glen and Hoffman Park Master Plans adopted</p> <p><b>Fall:</b> RFP and Selection of River Corridor Planning consultant (by end of year)</p>	<p><b>March:</b> City submits license amendment to extend date of license.</p> <p><b>Summer:</b> FERC grants license extension</p>	
2016	<p><b>Winter/Spring:</b> Corridor Planning Group formed</p> <ul style="list-style-type: none"> <li>Identifying Vision/Mission and Goals; Issues</li> <li>Establishing Plan objectives</li> <li>Begin DIRECTED studies on established schedule</li> </ul> <p><b>Fall:</b> Begin community education efforts on aspects of the Plan (recreation, trails, hydro generation, dams, stormwater, etc)</p>		
2017	<p><b>Winter/Spring:</b> Continue community education &amp; Complete Studies</p> <ul style="list-style-type: none"> <li>Establishing working groups</li> <li>Publishing surveys</li> <li>Complete DIRECTED Studies on established schedule</li> <li>Community meetings and open houses</li> </ul> <p><b>Fall:</b> Earliest decision point on whether to continue with hydro generation and dams to inform the draft Kinnickinnic River Corridor Plan.</p>	<p><b>Fall:</b> Community decision to support continuation of hydro generation at one or both of the facilities.</p>	<p><b>Fall:</b> Community decision to discontinue hydro generation and remove dams at one or both facilities.</p>
2018	<p><b>Winter/Spring:</b> Begin preparing summary reports/drafts to the Corridor Planning Group</p> <ul style="list-style-type: none"> <li>Drafts prepared for each section of the Plan</li> </ul> <p><b>Throughout year:</b> Continue public input meetings on drafts of Plan Continue Plan review by Corridor Planning Group</p>	<p><b>Between March 1 and August 31, 2018:</b></p> <ol style="list-style-type: none"> <li>Must notify FERC whether licensee intends to file or not to file an application for a new license</li> <li>Must submit Pre-Application Document at time of notice of intent (additional information generated from studies and community process)</li> </ol>	<p><b>Between March 1 and August 31, 2018:</b></p> <ol style="list-style-type: none"> <li>Must notify FERC whether licensee intends to file or not to file an application for a new license</li> <li>Within 90 days from notice, must file a schedule for the filing of a surrender application</li> </ol>
2019	Development and of action and funding plans. Kinnickinnic River Corridor Plan recommendation finalized and sent to Boards and City Council for approval.		<p>Preparing plan for surrender of license and decommissioning of facilities</p> <p>After August 31, 2021, FERC provides existing licensee with written notice that no timeline applications for the project have been filed.</p>
2020	Kinnickinnic River Corridor Plan adopted by Boards and City Council by January 1, 2020		
2021			
2022		Integrated Licensing Process	Continue preparing surrender application.
2023		License expires August 31, 2023	License expires August 31, 2023



## United States Department of the Interior

FISH AND WILDLIFE SERVICE  
Twin Cities Field Office  
4101 American Blvd E.  
Bloomington, Minnesota 55425-1665

March 27, 2015

Mr. Ray French  
City of River Falls  
222 Lewis Street  
River Falls, Wisconsin 54022

Re: FERC Project No. 10489  
River Falls Hydroelectric Project  
Kinnikinnic River, Pierce County, Wisconsin

Dear Mr. French:

The U.S. Fish and Wildlife Service (FWS) has reviewed the Pre-Application Document (PAD) and provided our comments and study requests in a letter dated May 19, 2014. To date, we have not yet received a written response to our letter or any details about studies requested as part of relicensing. On January 30, 2015, we participated in a phone conference with you and other agency stakeholders to discuss the possibility of a license extension, to provide the City of River Falls (licensee) with enough time to explore and determine if license surrender is a preferred course of action for the project. We indicated that we could support a five-year extension as long as stakeholder comments and study requests are addressed and you develop an implementation schedule. On March 13, 2015, we received an email with meeting minutes from a local stakeholder meeting regarding relicensing and a proposed schedule for Kinnikinnic River Corridor planning and potential FERC process decision dates (relicense or surrender processes).

We have reviewed your proposed schedule for Kinnikinnic River planning and potential FERC decision process and have discussed it with other stakeholders. As we mentioned on our January 30, 2015, phone conference with you, we can support your proposal under the following conditions:

1. The time period for a license extension does not exceed five years from 2018 (the year that the current license expires).
2. The licensee completes studies requested during the study request comment period and consider studies that evaluate surrender of the license with a plan for removal of the dams.
3. Information generated from economic and environmental studies should be completed so the licensee can make an informed decision on which route to choose by the fall of 2017 (the target date for decision outlined in your proposed schedule).

4. The licensee commits to the necessary consulting expertise needed to objectively evaluate the economic viability of the project and/or the costs and implications of removing the dams.

Without the results of necessary studies by 2017, the timeline proposed by the licensee may delay definitive action on the future direction of the project. We look forward to working with you and other stakeholders to develop a detailed scope of work and schedule for conducting these studies. We encourage you to initiate a consultation process with all stakeholders to address study requests and concerns raised during project scoping. As soon as these concerns and studies are addressed, we can work with you to develop an implementation schedule that may help you with justifying the need for a license extension with the FERC.

We appreciate the opportunity to comment on your draft schedule for river corridor planning and we look forward to working with you as you develop plans to address the decisions that the licensee intends to make by 2017. For further coordination on this project, and to set up future consultation and coordination, please contact Mr. Nick Utrup of this office at 612-725-2548, extension 2204.

Sincerely,

  
for Peter Fasbender  
Field Supervisor

- cc. Ms. Kimberly Bose, Federal Energy Regulatory Commission, Washington, D.C.  
Cheryl Laatsch, Wisconsin Department of Natural Resources, Horicon, WI  
Denny Caneff, River Alliance of Wisconsin, Madison, WI  
Randall Thoreson, National Park Service, St. Paul, MN  
Kent Johnson, Kiap-Tu-Wish Chapter, Trout Unlimited, Hudson, WI  
David Fodroczi, Kinnickinnic River Land Trust, River Falls, WI  
Michael Page, Friends and the Kinni, River Falls, WI



# United States Department of the Interior

## National Park Service Midwest Region

Rivers, Trails and Conservation Assistance Program

111 East Kellogg Boulevard  
St. Paul, Minnesota 55101-1288

L74(MWR-P/RTCA)

April 7, 2015

Mr. Ray French  
City of River Falls  
222 Lewis Street  
River Falls, Wisconsin 54022

Re: FERC Project No. 10489  
River Falls Hydroelectric Project  
Kinnickinnic River, Pierce County, Wisconsin

Dear Mr. French:

As you know, the National Park Service (NPS) has been involved and provided both written and verbal comments on the River Falls Hydroelectric (FERC Project No. 10489) for many months now. These have included review of Hydro Dam costing alternatives undertaken by a Consultant retained by River Falls, attendance and participation at a number of meetings and open River Falls City Council work sessions, and both telephone discussions with you and other staff members. Formal relicensing process steps have been the NPS review and comments of the Pre-Application Document (PAD) and a formal "Recreation Study Request" dated May 20, 2014. In addition, and upon organization by the NPS, a June 9, 2014 telephone conversation with FERC Representative Mark Ivy (Recreation) on the guidelines and specifics of Form 80 submittals was undertaken. On January 30, 2015, NPS participated in a telephone conversation between you and other agency stakeholders to discuss the possibility of a license extension, to provide the City of River Falls (licensee) with enough time to explore and determine if license surrender is a preferred course of action for the Project. Also, NPS attended and provided input at a March 3, 2015 meeting among city staff and representatives from the Friends of the Kinni, Kinni River Land Trust (KRLT), and Trout Unlimited (TU). As a result of that correspondence and upon further discussion with stakeholders the establishment of regular Project "Status" meetings was set up with the first taking place on April 9, 2015.

To date, the NPS have not yet received a written response to our Formal PAD review letter or any details about the requested "Recreation Study" as part of relicensing. The only substantive discussion has been that on the January 30, 2015 both the NPS and Fish and Wildlife Service (FWS), both formally under the Department of Interior, indicated that we could support a 5-year extension as long as stakeholder comments and study requests are addressed and you develop an implementation schedule. On March 13, 2015, we received an email with meeting minutes from the local stakeholder meeting of March 3, 2015 wherein there was a proposed schedule for Kinnickinnic (Kinni) River Corridor Planning and potential FERC process decision dates (relicense or surrender processes).

The NPS has reviewed your proposed schedule for Kinnickinnic River planning and potential FERC decision process and have discussed it with other stakeholders. As we mentioned on our January 30, 2015, phone conference with you, we (along with FWS) can support your proposal under the following conditions:

1. The time period for a license extension does not exceed five years from 2018 (the year that the current license expires).
2. The licensee complete studies requested during the study request comment period and consider studies that evaluate surrender of the license with a plan for removal of the dams.
3. Information generated from economic, environmental and recreation studies should be completed so the licensee can make an informed decision on which route to choose by the fall of 2017 (the target date for decision outlined in your proposed schedule).
4. The licensee commits to the necessary consulting expertise needed to objectively evaluate the economic, recreational and natural resource viability of the project and/or the costs and implications of removing the dams.

Without the results of necessary studies by 2017, the timeline proposed by the licensee may delay definitive action on the future direction of the project. We look forward to working with you and other stakeholders to develop a detailed scope of work and schedule for conducting these studies. We encourage you to initiate a consultation process with all stakeholders to address study requests and concerns raised during project scoping. The regular "Status Meetings" is a step in that direction. As soon as these concerns and studies are addressed, we can work with you to develop an implementation schedule that may help you with justifying the need for a license extension with the FERC.

We appreciate the opportunity to comment on your draft schedule for river corridor planning and we look forward to working with you as you develop plans to address the decisions that the licensee intends to make by 2017. For further coordination on this project, and to set up future consultation and coordination, please feel free to contact me at 651-293-8450 and/or [randy\\_thoreson@nps.gov](mailto:randy_thoreson@nps.gov)

Sincerely,



Randall R. Thoreson  
National Park Service/ River's and Trails Program, Hydro  
Midwest Field Office  
St. Paul, MN

cc: Ms. Kimberly Bose, Federal Energy Regulatory Commission, Washington, D.C.  
Cheryl Laatsch, Wisconsin Department of Natural Resources, Horicon, WI  
Denny Caneff, River Alliance of Wisconsin, Madison, WI  
Nick Utrup, U.S. Fish and Wildlife Service, Bloomington, MN  
Kent Johnson, Kiap-Tu-Wish Chapter Troup Unlimited, Hudson, WI  
David Fodroczi, Kinnickinnic River Land Trust, River Falls, WI  
Michael Page, Friends and the Kinni, River Falls, WI



April 21, 2015

Scot Simpson, City Administrator  
Raymond French, Management Analyst  
City of River Falls  
222 Lewis Street, Suite 202  
River Falls, WI 54022

**Re: River Falls Hydroelectric Project, FERC No. 10489**

Dear Scot and Ray:

Jim Fossum and I were glad to participate in your April 9 Agency/Stakeholder meeting. We feel that good progress was made. For the record, Jim and I wish to put in writing our verbal comments made during the meeting. We want to underscore here that the analyses we propose here should inform, and therefore precede, a broader river corridor planning process. Once the fate of the dams is determined, river corridor planning can flow from that determination.

We and others at the meeting stated that we would support your proposal for a five-year license extension if the City of River Falls, as Licensee, conducted directed studies that seriously evaluate the cost and environmental implications of 1) relicensing the project or 2) surrendering the license with a plan to remove the dams in a timely fashion. There appears to be general consensus among the stakeholders that the results of these studies must give the Licensee the necessary information to decide whether to relicense or remove by the fall of 2017.

The question is then: what are the highest-priority directed studies that the Licensee should begin with? The River Alliance believes that there are at least two that could, and should, begin ASAP.

**1. Economic and financial analysis of the hydro project.**

The Licensee, with input from a consultant, developed a lot of useful economic data on the value of the project. We recommend that you refine this financial analysis of power generation and project profit and loss from generation to consider the 30-year duration of a new license. We believe this financial analysis must estimate the cost of dam maintenance and repair; the costs of doing required environmental relicensing studies; and, to the extent possible, the cost of implementing terms of the new license that are likely to be imposed (i.e., recreational facilities improvements, water quality monitoring to ensure that the project complies with state water quality standards, and other record keeping that FERC requires to show operational compliance). (Note: these are examples and not intended to be a complete list.)

We are aware that the City is in possession of details of the financial operations of the two dams; a consultant could put together, at a reasonable amount of time and cost, the projections for future operations.

## **2. Dam removal study.**

We recommend that you hire a consultant specializing in river restoration (we could suggest a couple) to evaluate the economic and ecological implications of removing the dams. (Included in the analysis ought to be the fact that the Wisconsin DNR has a competitive grants program specifically for dam removals.) In addition to estimating demolition and debris removal costs related to removal, two central features of this ecological analysis would be sediment and water quality.

The sediment load behind the dams is a major concern: is it contaminated, and to what degree? How would sediment be managed if the dams were removed? Chemical analysis should be undertaken by a state-approved lab. The Wisconsin DNR can provide guidance on what contaminants to look for. Given the Kinnickinnic River is a destination high-quality trout fishery, understanding how the dams affect water quality is key. This analysis could also include the implications of dam removal for the City's stormwater system that discharges to the Kinni.

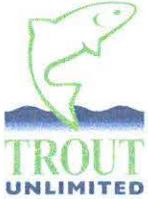
We hope this helps to capture the guidance we intended to provide you at the last Agency/Stakeholder meeting. We look forward to continued input at upcoming meetings to help the group scope out key elements of the directed studies.

Sincerely,

A handwritten signature in black ink that reads "Denny Caneff". The signature is written in a cursive style with a large, sweeping flourish at the end.

Denny Caneff  
Executive Director

CC: Ms. Kimberly Bose, Secretary, FERC  
Nick Utrup, U.S. Fish and Wildlife Service  
Cheryl Laatsch, FERC Coordinator, Wisconsin DNR  
Randal Thoreson, National Park Service  
Michael Page, Friends of the Kinni  
Keith Rodii, Friends of the Kinni  
Dave Fodroczi, Kinnickinnic River Land Trust  
Kent Johnson, Kiap-TU-Wish Chapter, Wisconsin Trout Unlimited  
Jim Fossum, JDFossum Environmental Consulting



## KIAP-TU-WISH CHAPTER TROUT UNLIMITED

*Conserving, protecting, and restoring cold water fisheries and their watersheds in Polk, Pierce, and St. Croix Counties, Wisconsin.*

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05/26/2015

RE: River Falls Hydroelectric Project, FERC Project No. P-10489

Mr. Ray French  
Management Analyst  
City of River Falls  
222 Lewis Street  
River Falls, WI 54022

Dear Mr. French:

We have not yet received any written response to our 11 May 2014 letter or any detail about studies to be conducted to reach decisions about relicensing of the River Falls Hydroelectric Project. Chapter representatives participated in meetings on 3 March, 9 April, and 14 May, 2015 in your office. We reiterated our concern about the lack of specificity in the studies to be conducted and the timeline for their conduct. Although we are encouraged by the City's target of Fall 2017 to decide about continued operation of the hydropower project, we are concerned about gaining the information needed for the community to reach an informed decision.

As we said in our 9 April 2015 letter, we strongly encourage you to convene a technical work group with the stakeholders, including the Kiap-TU-Wish Chapter and others who have recommended environmental, recreational, and economic studies. The technical work group should help the City develop specific scopes of work and a schedule for conducting the studies needed for the community to reach an informed decision about continued operation of the hydroelectric project and alternatives for license surrender, dam removal and river restoration. The technical committee meetings should be regularly scheduled and held for at least two hours. Written records of the technical committee meetings should be prepared and distributed to participants following each meeting, along with an agreed-upon agenda for the next meeting.

Kiap-TU-Wish Chapter ecological studies recommended for early implementation are:

- Assess the Kiap-TU-Wish temperature monitoring dataset (1992-2013) (Study Component Ia).
- Conduct thermal modeling of the Kinnickinnic River with the existing U.S. Army Corps of Engineers model, to assess the temperature regime of the river with and without the dams, under current conditions and with future climate change scenarios (Study Component Id).
- Assess the impacts of dam operation on Kinnickinnic River flow during base flow periods (without surface runoff), using USGS gage data (Study Component IIa).
- Assess the extent to which Lakes George and Louise have been filled by the historical deposition of sediment (Study Component IIIb).



- Evaluate the existing Lake George sediment core data (1989 - 1990) to determine implications for biological impacts and possible future disposal and/or re-use of dredged material (Study Component IIIc).
- Collect sediment core samples and associated sediment pore water samples from Lakes George and Louise. Analyze the samples for physical properties and contaminants, to determine implications for biological impacts and possible future disposal and/or re-use of dredged material (Study Component IIIId).

Our Chapter members and the River Falls community treasure the Kinnickinnic River. We look forward to working with the City to develop the scope and schedule of the necessary studies to protect and restore the river.

Sincerely,

Gary Horvath  
Kiap-TU-Wish Chapter

Dan Wilcox  
Kiap TU Wish Chapter

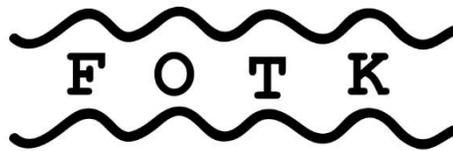
Cc:

Kimberly Bose, Secretary, Federal Energy Regulatory Commission  
David Fodroczi, Executive Director, Kinnickinnic River Land Trust  
Dennis Caneff, Executive Director, River Alliance of Wisconsin  
Michael Page, Friends of the Kinnickinnic River  
Dan Baumann, Director, West Central Region, Wisconsin DNR  
Randy Thoreson, National Park Service Midwest Region  
Jeff Gosse, FERC Hydropower Coordinator, U.S. Fish and Wildlife Service Region 3

**Kiap-TU-Wish Recommended Studies for River Falls Hydro Relicensing**

= Study recommended for early implementation

	High Priority for Early Conduct?	Needed for Relicensing?	Needed for Decommissioning?	Comments
<b>1 Temperature Impacts</b>				
<b>1a Assessment of KIAP temperature monitoring dataset (1992-2013)</b>	Yes	Yes	Yes	Dam removal would eliminate thermal impacts of dams
Make comparisons to thermal thresholds for trout and invertebrates				
Assess cumulative heat exposure				
Regression analysis of temperature trends				
Evaluate susceptibility to air temperature and climate change				
1b Year-round temperature monitoring of Lakes George and Luise (1-2 years)	No	Yes	No	Dam removal would eliminate thermal impacts of dams
Include vertical temperature profiles to determine seasonal stratification				
1c Winter temperature monitoring at upstream and downstream sites to determine winter impacts of reservoirs	No	Yes	No	Dam removal would eliminate thermal impacts of dams
1d Thermal modeling	Yes	Yes	No	Dam removal would eliminate thermal impacts of dams
Adapt existing USACE thermal model				
Assess existing impact of the reservoirs on temperature regime and under future climate scenarios				
Assess impact of dam removals on temperature regime				
<b>2 Hydrologic Impacts</b>				
<b>2a Assess impacts of dam operation on flow during base flow periods (without surface runoff) using USGS gage data</b>	Yes	Yes	Yes	Operation-induced flow fluctuations would require mitigation measures if licensing proceeds
2b Assemble and review reports of dam-operation related flow irregularities				
2c Obtain and review City of RF dam operation records, assess deviations from 'run of river' operation				
<b>3 Water Quality and Sediment</b>				
<b>3a Conduct seasonal (April-October) water quality monitoring of reservoirs and river upstream and downstream 1-2 years</b>	No	Yes	No	Dam removal would eliminate water quality impacts of dams
D.O, turbidity, SS, nutrients, trace metals, bacteria, Chl, pH, conductivity				
Vertical profiling in reservoirs				
Diel D.O. monitoring				
Assess impacts of reservoirs on water quality				
<b>3b Survey and analyze sediment in Lakes George and Luise</b>	Yes	Yes	Yes	Priority would be physical survey to determine sediment volume Particle size analysis of cores
Survey sediment surface elevations, prepare digital map				
Survey sediment depth to bedrock, prepare digital map				
Obtain deep sediment cores, conduct dating analyses				
Estimate sediment accumulation rates over time				
<b>3c Evaluate sediment core data (1989 - 1990) to determine implications for biological impacts</b>	Yes	Yes	Yes	Desk top study, compare to Great Lakes sediment contaminants standards
<b>3d Collect sediment core and associated pore water samples</b>	Yes	Yes	Yes	This would provide further information needed about sediment contaminants
Analyze for sediment physical properties and contaminants				
Conduct laboratory sediment and pore-water toxicity tests on invertebrates	No	Yes	Yes	Needed if contaminant concentrations relatively high
<b>4 Biological Impacts</b>				
<b>4a Comparative assessment of Kinni fisheries and macroinvertebrate survey data</b>	No	Yes	No	Limited existing data
Assess upriver vs. downriver community composition and abundance using appropriate metrics				
4b Conduct fisheries and macroinvertebrate surveys of Lakes George and Luise	No	Yes	Yes	Would require additional fish, macroinverts sampling
4c Assess impacts of impoundments related to bioaccumulation and biomagnification, implications on human health	No	Yes	No	Would require sediment contaminants data 3d above
4d Survey periphyton and macrophytes upstream, downstream and within impoundments	No	Yes	No	Would require periphyton, macrophytes survey, ID, enumeration, evaluation
<b>4e Evaluate potential for coldwater ecosystem restoration with dam removal</b>	Yes	Yes	Yes	Would require water temperature analysis 1a
<b>4f Determine if reservoirs are harboring invasive species</b>	Yes	Yes	Yes	Could do a 'bio-blitz' survey
<b>5 Stormwater Management</b>				
<b>5a Determine effect of dam removal on Lake George stormwater concept plan</b>	No	Yes	Yes	USACE model is available for use
Adapt and apply the USACE thermal model to compare stormwater BMPs performance with and w/o dams				
5b Determine effects of dam removal on space and infiltration capacity for West Side and Bartosh Canyon storm water	No	Yes	Yes	



June 22<sup>nd</sup>, 2015

Dr. Michael S. Page, Spokesperson  
The Friends of the Kinni  
315 N Fremont Street  
River Falls, WI 54022

Mr. Scot Simpson, City Administrator  
Mr. Ray French, Management Analyst  
The City of River Falls  
222 Lewis Street  
River Falls, WI 54022

Re: Collaborative Approach to Initial Studies

Dear Scot and Ray,

Thank you again for hosting the public stakeholder touch-base meetings on a regular basis. Your interest in hearing from and working with local stakeholder organizations throughout this entire process is greatly appreciated. The Friends of the Kinni (FOTK) are dedicated to, and very interested in, working cooperatively with the City throughout the Kinnickinnic River Corridor planning process including the impending application for license extension and initial studies. The FOTK would like to propose a collaborative approach to the initiation of the sediment analysis to be conducted this year.

As the City of River Falls investigates potential consulting firms to conduct the sediment study, we would like to reiterate the importance of hiring a consulting firm familiar with sediment management in the State of Wisconsin. In particular, the firm should have experience with sediment analysis and management during river restoration projects involving dam removal in the State of Wisconsin because this is exactly what we are considering in our current planning process.

During our last stakeholder meeting on May 14<sup>th</sup>, 2015 Cheryl Laatsch (Statewide FERC Coordinator, WI DNR) informed our group of the importance of adhering to the many requirements the State of Wisconsin has for analysis and management of sediment during river restoration projects through dam removal. Working with a firm who has experience with dam removal in the state of Wisconsin will help guarantee that we gain an accurate, appropriate sediment analysis data set and develop realistic expectations for its management to better inform our Kinnickinnic River Corridor planning process.

While conducting the analysis of the sediment in the two impoundments, a comprehensive feasibility study for restoration of the Kinnickinnic River through dam removal could be simultaneously conducted. A feasibility study for river restoration will inform the Kinnickinnic

River Corridor planning process of what can be expected in a dam removal scenario. Such a feasibility study can coincide with and be based on the sediment analysis with minimal added expense or further investment of the City's time. A thorough analysis of the sediment would also be better directed and informed through the development of such a feasibility study. A comprehensive feasibility study could also be tiered to be initiated during the sediment analysis and develop over the next year or two into an entire package.

The FOTK would like to collaborate with the City of River Falls and participate in the funding of such a study contingent upon the cooperation from the City of River Falls on the selection of a firm with experience in sediment management during river restoration projects in the State of Wisconsin. We would like to offer the dedication of our current funds and our planned immediate fundraising and grant writing efforts to the shared funding of such a sediment analysis in combination with a feasibility study for restoration of the Kinnickinnic River through dam removal.

Please accept this proposal as affirmation of our commitment to collaboration as we enter the Kinnickinnic River Corridor planning process. In the very least, please consider inquiring with RFP's to experienced firms requesting proposals for the development of such a feasibility study to be completed in the future as you have discussions with them regarding sediment analysis.

We look forward to the continued discussion on the future of the Kinnickinnic River within the heart of our community. Please let us know if you have any questions or would like to discuss this further prior to our next meeting this Thursday morning.

Thank you,

A handwritten signature in black ink, appearing to read "M. S. Page". The signature is fluid and cursive, with a large, stylized initial "P" at the end.

Dr. Michael S. Page, Spokesperson  
The Friends of the Kinni

## Appendix D

## **KINNICKINNIC RIVER CORRIDOR PLANNING STRATEGY**

The River Falls City Council has identified the Kinnickinnic River Corridor as a strategic priority in the coming years through the adoption of the City's first Strategic Plan. They have also adopted a timeline and strategy that results in the creation of a Kinnickinnic River Corridor Plan, which will guide the protection and development of the City's greatest natural resource.

The Council's timeline and strategy continues to be updated as reflected in this document and following stakeholder input. As the planning process comes into focus, funding will be planned to ensure a comprehensive study and education process for the community.

To date, the City of River Falls has budgeted \$100,000 for the hydroelectric licensing process through 2016. Additional funds to support the study and planning processes will be budgeted in the City's 2017-2018 and 2019-2020 biennial budgets. Opportunities also exist for funding options in addition to the City's resources and every effort will be made to identify and work with partners on supplemental funding sources from other public and non-profit sources.

### **Interim Licensing and Corridor Planning Period (2015)**

#### *Spring/Summer*

In response to the input from stakeholders, the City is working in consultation to develop a list of studies agreed upon for early implementation and to be completed prior to the start of the planning process. The goal of these studies will be to inform the initial body of knowledge that will be drawn from by the future Corridor Planning Group.

Sediment Studies – Following the alternatives analysis recently completed by the City's consultant at the end of 2014, there remained the question of the potential costs of dam removal regarding the character and volume of sediment in the impoundments. This area of study will most greatly inform the planning process by identifying the potential costs associated with sediment management. A consultant will be selected in July, in consultation with stakeholders, to complete the studies related to the character and volume of sediment.

Recreational Use – The City is also collecting baseline recreational use data to meet current reporting requirements and to inform the corridor planning process. Data is being collected over a course of days and peak weekends of the number of users in various locations and their activities. Data will also be collected from the fishing and kayak outfitters that provide recreational opportunities in the project area.

NOTE: The studies listed above are not exhaustive of all the information that will be collected prior to the beginning of the River Corridor Planning Process. The City also acknowledges the experience and expertise of many stakeholders in evaluating the environmental impacts of hydroelectric facilities on the nation's waterways. The City will continue to work with stakeholders through the summer on developing additional study plans to inform the Kinnickinnic River Corridor Planning Process to be completed through the Fall and Winter of 2015/2016.

*July 2, 2015*

### *Fall*

City staff will be working with a consultant with experience in river corridor planning and their technical firm to draft the Request for Proposals (RFP) for the Kinnickinnic River Corridor Plan. Stakeholders and the public will have an opportunity to provide input on the RFP prior to it being issued and again on the proposals that are received. The contract will be awarded by the City Council.

The City will continue to work with stakeholders on information gathering and continuing the directed studies agreed upon for early implementation.

### **Kinnickinnic River Corridor Planning (2016-2019)**

The following outline is intended to guide expectations for components of the corridor planning process. It is subject to change based on the experience and expertise of the planning consultant; however, the process will be built around the decision point in fall 2017 on the future of hydrogenation at either or both facilities.

### **2016**

#### *Winter*

After the planning firm is hired, a Corridor Planning Group will be formed. The Planning Group will direct much of the continued study and will build on the work of City staff and stakeholders. Information gathering will continue through 2016 and 2017 and integrated into the community input process on the question of whether to continue with hydro generation at the Project.

Selecting the planning consultant will begin the first stage of the planning process, which will end with an adopted Corridor Plan. Later stages will consist of the implementation activities.

#### *Spring/Summer/Fall*

The Corridor Planning Group begins work on:

- Identifying the Vision, Mission, and Goals of the Corridor Plan
- Engaging in issue-identification
- Assessing existing conditions and reviewing available information
- Establishing Plan objectives
- Identifying gaps in information that will be needed in order for a decision on the future of hydroelectric facilities

The Corridor Planning process will likely be divided into phases based on the section of the River through the City. Planning surrounding the River Falls Hydroelectric Project Boundary will be the first phase of the process, and the upstream and downstream sections will occur afterwards. The Project Boundary area will be planned for first because of the necessity to come to a decision on the future of the hydro facilities by Fall, 2017.

### **2017**

#### *Winter/Spring*

At this time, the City, stakeholders, and planning firm will begin community education efforts on the various aspects of the Plan. Issue categories may be centered on hydroelectric generation and operations, future maintenance of the dams, storm water issues (Lake George Management Plan,

downtown runoff, etc.), recreation opportunities (fishing, kayaking), trail systems (connections, types of trails), and natural resource concerns (species identification).

This part of the process will involve an extensive public outreach campaign that can include community meetings, open houses, surveys, and established working groups.

#### *Summer*

The final stage of data gathering will be completed at this time. The results will be published online and provided to the Corridor Planning Group.

#### *Fall*

After reviewing all of the available information and receiving recommendations from the Corridor Planning Group and others, the City Council will decide on whether to continue with hydroelectric generation and one or both of the facilities.

### **2018**

#### *Winter/Spring*

The planning firm and City staff will begin preparing summary reports and drafts of the Plan to the Corridor Planning Group. The drafts will be prepared in sections based on each area of the Plan for their review.

#### *Spring-Fall*

Public input meetings will continue throughout the year on the drafts of the Plan. Public input and the Corridor Planning Group will continue to shape the final Plan. A comprehensive draft of the final Kinnickinnic River Corridor Plan will be available by the end of 2018.

### **2019**

#### *Winter/Spring*

The Corridor Planning Group, in consultation with the public, City Staff, and the planning firm, will draft an action and funding plan for the implementation of the final Kinnickinnic River Corridor Plan. Pending review and approval by the appropriate public boards and commissions, the City Council could adopt the Kinnickinnic River Corridor Plan as early as the Summer, 2019.

## FUTURE FERC LICENSING REQUIREMENTS

The following table illustrates the licensing processes following the community decision of whether to continue hydro generation or remove one or both facilities. With license expiration on August 31, 2023, notice to FERC of intent to relicense or surrender would occur in mid-2018. Following approval of the Kinnickinnic River Corridor Plan and related implementation and funding plans, activities may commence in accordance with those plans.

In response to the input from stakeholders, the City of River Falls is requesting only a five-year extension of its hydroelectric license to August 31, 2023. That should provide adequate time for the study of the corridor and a comprehensive public engagement and education process.

Year	FERC Licensing Requirements <b>Relicense</b>	FERC Licensing Requirements <b>Surrender</b>
2017	<b>End of Fall:</b> Community decision to support continuation of hydro generation at one or both of the facilities.	<b>End of Fall:</b> Community decision to discontinue hydro generation and remove dams at one or both facilities.
2018	<b>Between March 1 and August 31, 2018:</b> 1) Must notify FERC whether licensee intends to file or not to file an application for a new license 2) Must submit Pre-Application Document at time of notice of intent (more comprehensive information generated from studies that guided the Corridor Plan)	<b>Between March 1 and August 31, 2018:</b> 1) Must notify FERC whether licensee intends to file or not to file an application for a new license 2) Within 90 days from notice, must file a schedule for the filing of a surrender application
2019	[Integrated Licensing Process]	[Once the Kinnickinnic River Corridor Plan is adopted, actions may commence towards its implementation. Activities for surrender and dam removal will be contingent upon FERC surrender requirements and guided by the approved Corridor Implementation and Funding Plan.]
2020		
2021		
2022		
2023	<b>License expires August 31, 2023</b>	<b>License expires August 31, 2023</b>

## Appendix E



**ADDRESS**

222 Lewis Street  
River Falls, WI  
54022

**PHONE**

715-425-0906

**FAX**

715-425-7217

**WEBSITE**

[www.rfmu.org](http://www.rfmu.org)



POWERful Choices! is a community-wide effort to instill a strong conservation ethic while demonstrating the effectiveness of energy efficiency, conservation and renewable resource development.

July 2, 2015

Via Electronic Filing

Ms. Kimberly Bose, Secretary  
Federal Energy Regulatory Commission  
888 First Street, N.E.  
Washington, D.C. 20426

Re: River Falls Hydroelectric Project, Project No. 10489  
Traditional Licensing Process and Kinnickinnic River Corridor Plan  
**Initial Directed Studies**

Dear Secretary Bose:

The City of River Falls (City) currently owns, operates, and maintains the River Falls Hydroelectric Project (Project). The City submitted its notice of intent to relicense the Project and pre-application document on November 27, 2013. The City also submitted a request to use the traditional licensing process on that date, which was granted by the Commission on January 27, 2014. Consistent with Commission regulations, an initial consultation meeting was held at the project facilities and the River Falls City Hall on March 24, 2014. It was widely attended by community members and other interested parties from the region and state. Initial comments and study requests from stakeholders were received by the City for consideration by May 23, 2014.

Since the study requests were received, City representatives have been continuing to evaluate the Project feasibility, public sentiment, and the scope of requested studies, and continuing informal conversations with community members and interested parties. The River Falls City Council has also since adopted a strategy and timeline to develop a comprehensive Kinnickinnic River Corridor Plan that includes a community process for determining the disposition of the project facilities. As part of that strategy to provide for community input and concurrent with this filing, the City is also submitting an application for amendment of the license to extend the date for termination of the license from August 31, 2018 to August 31, 2023.

The Kinnickinnic River Corridor Plan process will continue through 2019 and incorporates a decision point for whether the hydroelectric operations will continue and the continued disposition of facilities in fall 2017, consistent with Commission regulations for notice if the extension is granted. The planning process will also include continued and incremental study of the river corridor and project area, in consultation with stakeholders and community through the process. The study requests submitted as part of the traditional licensing process will be used as a guide for areas of potential study for the corridor planning process, although it is unlikely that the wide breadth of studies described in those communications will be necessary for corridor planning.

In anticipation of the river corridor planning process, staff and stakeholders have identified areas of need for immediate study to inform the process and future decisions. Enclosed with this letter is a response to the study requests received from stakeholders as part of the traditional licensing process regarding sediment and recreational studies. The attachments describe the sediment and recreational use studies that will occur immediately to inform the launch of the Kinnickinnic River Corridor Plan process. Some elements of suggested sediment and recreational use studies are not a priority to address at this time, but will be considered for future study in the corridor planning process. All other areas of study contained in the requests, such as temperature monitoring and wildlife and vegetation studies, will continue to be evaluated by staff and stakeholders as part of the corridor planning process.

By filing a study response only for sediment and recreation use, the City is notifying stakeholders that all of the other areas of study recommended will be considered as part of the corridor planning process. The additional study plans developed in consultation with stakeholders will continue to be filed with the Commission throughout the process. We have notified and provided an electronic copy of this filing to those individuals and state and federal agencies that have expressed an interest in this matter.

Please let me know if you have any questions regarding these materials.

Sincerely,

Raymond French  
Management Analyst

## INITIAL DIRECTED STUDIES

### **Sediment Analysis**

An analysis of licensing options available to the City was prepared in fall 2014, which showed a wide range of potential costs for sediment management in the case of dam removal. Nearly every stakeholder submission as part of the traditional licensing process identified sediment as a key area of study, particularly as related to dam removal.

The primary goal of the sediment analysis to be conducted in 2015 is to identify the costs and methods for sediment management if the City were to pursue dam removal in the future at one or both hydroelectric facilities. Attached to this information is the request for proposal and questions answered for the sediment analysis project, developed in consultation with stakeholders.

### *Areas of Study*

The areas of study are likely to include sediment sampling of both impoundments, an analysis of the physical and chemical properties of the sediment, and bathymetric surveys of the impoundments, or updating existing information where applicable.

Proposals are due by 5:00pm on Tuesday, July 7, 2015. Staff and stakeholders will meet on Monday, July 13 to review the proposals and provide a recommendation to the Utility Advisory Board (UAB). The UAB will consider a resolution authorizing the work at their Monday, July 20, 2015 meeting.

### *Other Requested Areas of Study for Future Consideration*

The study requests list other areas of study that will not be completed as part of this analysis. They will continue to be considered for study as necessary to inform the Kinnickinnic River Corridor Plan and community process. They include:

- Benthic sediment survey to determine quantity and quality of aquatic habitat
- Confirming reservoir capacity and flow regime
- Determining rate of sedimentation in lakes (this is listed as an optional area of study in the request for proposals)

### **Recreational Uses**

Another area identified as a priority for initial study is providing baseline recreational use and amenity data to inform the Kinnickinnic River Corridor Plan process. There are also existing requirements as part of the current license to document recreation uses in the project area, particularly regarding the Form 80 Recreation Report and a separate survey regarding downstream conditions for an updated dam break analysis.

The City is conducting a multi-faceted baseline survey of recreational use and an inventory of recreation opportunities in the project area. Data collection is already underway in some areas and further surveys will continue to be developed in consultation with stakeholders. There are likely to be additional surveys of current and future recreational use as part of the Kinnickinnic River Corridor Plan process, and the study requests will continue to form a basis for the scope and topics of those studies.

The deliverables of this baseline survey are :

### *1. Preliminary Project Boundary Map*

City staff have developed a preliminary project boundary map to guide the areas of study for recreational uses. The current project boundary map is inadequate for this purpose. Should the City and community decide to continue hydroelectric operations and pursue relicensing, the preliminary project boundary map would be included in those materials. However, for these purposes, this map is only a guide.

### *2. Inventory of Existing Recreation Amenities*

This was a key item identified in the study requests and will be completed as part of this survey. City staff is identifying and mapping existing recreation amenities in the preliminary project area. This data is collected through observations of use, self-reports by recreational users, and those amenities provided by the City.

### *3. Form 80 Recreation Report*

Staff is using the inventory of existing recreation amenities and staff observations of use on peak weekends to prepare information sufficient for this report. The Hydroelectric Operator is also recording visitors observed per day and their activities in the project area when making rounds to the Upper and Lower Hydroelectric facilities.

### *4. Other Recreational Use Surveying*

Staff will be working with interested stakeholders to conduct an observational survey of visitors to the project area and their recreational uses. This was another key item identified in the study requests, and the survey is intended to provide a guide for understanding the number of visitors to the project area and their activities. This data will also inform the reporting requirements for the current license.

### *5. Downstream Conditions Recreational Use Survey*

Staff will be working with primary recreational use outfitters that sponsor access to the lower Kinnickinnic River below the Lower Hydro to identify the daily, weekly, and monthly visitors to this area. This will provide the data necessary for assessing downstream conditions.

### *Other Requested Areas of Study for Future Consideration*

The study requests list other areas of study that will not be completed as part of this analysis. They will continue to be considered for study as necessary to inform the Kinnickinnic River Corridor Plan and community process. They include:

- Survey of perceptions of outdoor recreational opportunities and the project's effects (interviews and mail/telephone survey)
- Economic valuation of possible improvements due to removal of dams
- Creation of Recreation Plan for post-licensing
- Develop park inventory for parks in relation to project boundary



CITY OF RIVER FALLS, WI

Dan Toland, Mayor

**REQUEST FOR PROPOSAL**

**SEDIMENT ANALYSIS**

June 25, 2015

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## Section 1 – General Information

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### *A. Introduction*

The City of River Falls (City) is currently seeking proposals from qualified firms to provide professional consultative services in the area of sediment analysis for the River Falls Hydroelectric Project (P-10489). The purpose of this request for proposals (RFP) is to provide interested qualified firms with information to enable them to prepare and submit a proposal for a services agreement.

The primary goal of the sediment analysis is to identify the costs and methods for sediment management if the City were to pursue dam removal in the future at one or both hydroelectric facilities. This analysis follows up on the preceding analysis of licensing options available to the City showing a wide-range of potential costs for sediment management. Secondary questions include the amount of sediment contained in the impoundments, their physical and chemical properties, and the implications of this information on possible sediment management scenarios.

The City anticipates that there are multiple components to this analysis, including some combination of bathymetric surveys, sediment depth measurements, and sediment sampling and analysis. It will be up to the firm to propose any necessary phasing for study that can best satisfy the research question presented in the most cost-effective manner. The City also requests firms provide an optional study component that establishes the rate of sedimentation in the two impoundments.

Proposals will be accepted until 5:00pm on Tuesday, July 7, 2015. Electronic submittals are encouraged and submitted to Ray French at [rfrench@rfcity.org](mailto:rfrench@rfcity.org). Hard copies may be mailed to:

Ray French  
City of River Falls  
222 Lewis Street  
River Falls, WI 54022

Questions or requests for clarification may be directed to Ray French, Management Analyst, at 715-426-3437 or email at [rfrench@rfcity.org](mailto:rfrench@rfcity.org).

### *B. Project Background*

The River Falls Hydroelectric Project (P-10489) was granted a 30-year license from the Federal Energy Regulatory Commission (FERC) that expires on August 31, 2018. The project consists of the hydroelectric facilities at the Junction Falls (Upper) and Powell Falls (Lower) Dams. A draft map of the project boundary can be found [here](#) (8mb pdf).

The Junction Falls (Upper) Dam was constructed in 1920 and significant rehabilitation work was completed in 1990. It consists of a concrete gravity dam, 140 feet long and 32 feet high, with an uncontrolled overflow spillway and a crest length of 115 feet. The existing reservoir, Lake George is 16 acres with a storage capacity of 142 acre-feet. The Powell Falls (Lower) Dam was

constructed in 1966. It consists of a concrete gravity dam, 110 feet long and 22 feet high, with an uncontrolled overflow spillway. The reservoir, Lake Louise, is 15.4 acres with a normal 37 acre-foot capacity.

On November 27, 2013, the City filed a notice of intent to file a license application and a request to use the Traditional Licensing Process, along with its pre-application document (PAD). FERC approved use of the Traditional Licensing Process on January 27, 2014. On March 24, 2014 the City hosted an initial consultation meeting and site visit for interested parties and stakeholders. Those interested parties and stakeholders submitted their study requests and comments on the PAD by May 23, 2014.

Since then, City staff has continued to evaluate Project feasibility and engage in informational conversations with community members and interested parties. Given the significant interest in the Project and a preliminary analysis completed by staff, the City retained a licensing consultant to perform an alternatives analysis regarding licensing requirements and Project disposition. This analysis produced wide ranges of costs for the different licensing alternatives available.

In contemplation of the different licensing options and on January 13, 2015, the River Falls City Council adopted resolutions that directed staff to seek a license extension, adopted a draft Kinnickinnic River Corridor Planning Strategy, and provided additional oversight of hydro capital costs. Another resolution also directed staff to annually report the fund balance, if any, from hydro operations for future capital projects related to the future Kinnickinnic River Corridor Plan. Additional information can be found at <http://www.rfcity.org/hydro>.

The sediment analysis and related studies covered by this Request for Proposal are intended to answer the questions presented in the Introduction and be sufficient for use in future licensing applications, feasibility studies and plans for dam removal, and the sediment management options contained in each process.

## **Section 2 – Scope of Sediment Analysis**

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### ***A. Scope***

The City and stakeholders are interested in an analysis of the sediment in the two impoundments in order to establish reliable cost estimates and understand the methods for sediment management if dam removal is to be pursued in the future at one or both hydroelectric facilities.

A previous analysis of alternatives related to licensing and project disposition identified that, in the case of dam removal, sediment management results in the greatest variation in overall costs for the project. The goal of the sediment analysis is to identify what those costs would be and the requirements for managing the sediment in the two impoundments, specifically.

The City has some existing sediment data and a bathymetric survey completed in 2006 for Lake George. There is limited data existing on Lake Louise. Interested firms can find information on the bathymetric survey of Lake George here: <http://1drv.ms/1Mi9fls>. Also included in that folder is original data on the sediment of Lake George from 1980, 1990, and 2014 (WiDNR).

The City anticipates that there are multiple components to this analysis, including some combination of bathymetric surveys, sediment depth measurements, and sediment sampling and analysis. The firm shall include in the proposal the development of a bathymetric survey of Lake Louise and enough field checking and verification necessary to validate the existing survey of Lake George. The proposal shall include the firm's recommendations for a sufficient number of sediment probes to bedrock necessary to calculate sediment volumes and create digital base maps of bedrock. The proposal shall also include a program that may be based on a range of core samples sufficient to provide the City with an evaluation and characterization of the physical properties of the sediments in Lake George and Lake Louise. Analysis of core samples shall be completed in conformance with WiDNR requirements for chemical analysis. It is up to the firm to propose any necessary phasing for study that can best satisfy the research question presented in the most cost-effective manner.

In addition to the research, field work, analysis, and reporting requirements for this project, the City also requests that firms include in the proposal estimated costs for sufficient meetings prior to work beginning and for presentations of the findings to the local stakeholder group and community as may be required depending on findings. Adequate consultation with Wisconsin Department of Natural Resources staff on the issues that may impact this project in the case of dam removal or relicensing shall also be included prior to work beginning. City staff will be in communication with the selected firm and monitor progress throughout the project.

#### *Optional Bid Item*

The City requests firms provide bidding information for an optional task that determines an estimated rate of sedimentation in the two reservoirs. The concern addressed by this item is whether the data collected and reported in this analysis will be sufficient should the City and community pursue dam removal in the future, and whether there is a time limit on its value.

Limited sediment sampling and bathymetric survey data is available for the two impoundments and the body of information will be updated as part of this project. Proposals may address how this inquiry can be paired with existing project phasing and activities for the overall sediment analysis project. Proposals may also address the efficacy of this optional bid item and whether it would be useful information when evaluating dam removal feasibility or preparing dam removal and sediment management plans ten or more years into the future.

### ***B. Timeline***

The City has made every effort to include enough information in this RFP for a firm to prepare a responsive proposal. The City reserves the right to retain all proposals submitted and to use any ideas in a proposal, unless protected by copyright, regardless of whether that proposal is selected. Submission of a proposal indicates acceptance by the firm of the conditions contained in the RFP, unless clearly and specifically noted in the proposal submitted, and confirmed in the contract between the City of River Falls and the firm selected.

The City reserves the right to reject any and all proposals, cancel all or part of this RFP, waive any minor irregularities, and request additional information from proposing firms. The City will

not reimburse the respondents to this RFP for any expenses incurred in preparing proposals, or for the attendance at interviews. This RFP does not obligate the City to accept or contract for any services.

TIMELINE	
Distribution of RFP	June 25, 2015
Proposal submission, 5:00pm	July 7, 2015
Initial staff proposal review	July 8, 2015
Group proposal review with stakeholders	July 13, 2015
Notification of preliminary decision	July 15, 2015
Utility Advisory Board Resolution	July 20, 2015

The timing of the proposal process is as follows:

#### Distribution of RFP

The RFP will be made available on the City's website ([www.rfcity.org](http://www.rfcity.org)) on June 25, 2015.

#### Proposal Submission

Proposals must be e-mailed to Ray French at [rfrench@rfcity.org](mailto:rfrench@rfcity.org) or received through the mail no later than 5:00pm on July 7, 2015. A confirmation e-mail will be sent upon receipt to ensure consideration of the proposal.

#### Initial Staff Proposal Review

City staff will prepare an initial review and summary of the proposals beginning on July 8, 2015 and provide it to a selected group of stakeholders for review.

#### Group Proposal Review with Stakeholders

A meeting with selected stakeholders to evaluate the proposals will occur on or about July 13, 2015. City staff and selected stakeholders will develop a recommendation for proposal approval for the Utility Advisory Board.

#### Notification of Preliminary Decision

Firms submitting proposals will be notified of the preliminary decision by July 15, 2015 in anticipation of the Utility Advisory Board packet publication. The packet will include a memo and resolution authorizing the agreement with selected firm, and the Group recommendation.

#### Utility Advisory Board Resolution

At their regularly scheduled meeting on July 20, 2015 at 6:30pm, the Utility Advisory Board will consider a resolution authorizing an agreement with the selected firm based on the recommendation of the staff and stakeholder group.

Project work shall be completed in 2015 with report and presentation of results to City staff, stakeholders, and public by early November, 2015.

## Section 3 – Bidding Instructions

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### *A. Proposal Format*

Firms are encouraged to be creative and thorough in their proposal submissions to include all of the following information:

1. Letter of Transmittal. The letter of transmittal shall include an introduction of the bidder's firm as well as the name, address, telephone number, and e-mail address of the contact person and other representatives dealing with the RFP, and signed by an authorized representative of the firm.
2. Executive Summary. An executive summary shall briefly describe the bidder's approach to the proposal, clearly outline any options or alternatives, and indicate if the bidder cannot meet any major requirements. The summary must also highlight the major features of the proposal and identify any pertinent supporting information.
3. Statement of Qualifications. This section shall provide information regarding the bidder's qualifications and experience, or those of his/her proposed partner's, relevant to the work to be performed, including what, if any, experience the bidder has in dam removal and sediment management in Wisconsin. It shall include a firm profile (if appropriate); references of similar contracts or work experience that is relevant to this RFP; and appropriate references, including addresses and phone numbers of individuals, groups or organizations with which the bidder has worked during the past 3-5 years.
4. Additional Information. Any information deemed pertinent to the RFP, but not outlined in the RFP may be included in this section. This section may also include firm brochures or other material.
5. Proprietary Information. Bidders are requested to mark any specific information contained in the proposal that is not to be disclosed to the public or used for purposes other than evaluation of the proposals. Pricing and service elements of the successful proposal will not be considered proprietary. The proposal and all supporting materials supplied will become the property of City of River Falls and will not be returned. Proposals submitted may be reviewed and evaluated by any person at the discretion of the City.

### *B. Submission Process*

Proposals will be accepted until 5:00pm on Tuesday, July 7, 2015. Electronic submittals are encouraged and submitted to Ray French at [rfrench@rfcity.org](mailto:rfrench@rfcity.org). Hard copies may be mailed to:

Ray French  
City of River Falls  
222 Lewis Street  
River Falls, WI 54022

Questions or requests for clarification may be directed to Ray French, Management Analyst, at 715-426-3437 or email at [rfrench@rfcity.org](mailto:rfrench@rfcity.org).

### ***C. Evaluation Process***

Proposals will be initially reviewed by City staff based on their alignment with the goals of the project. A summary of the proposals will be prepared, which will be shared with stakeholders along with the proposals themselves for their review. A meeting of City staff and selected stakeholders will occur on or about July 13. The group will come to consensus and communicate their recommendation to the Utility Advisory Board (UAB) and to bidding firms on July 15, with authorization to continue by the UAB on July 20, 2015.

It is the City's desire to select the firm that will provide the best overall value to the City. Best value is based not only on cost, but also includes the ability to best answer the questions presented for current and future process considerations.

Submitted proposals will be judged on the following evaluation criteria:

- a. The demonstrated ability of the bidder to perform the work necessary to achieve the goals of the project, including providing adequate communication throughout the course of the project.
- b. The experience of the firm and individuals to perform the work of the project, with particular interest in similar work performed in the State of Wisconsin according to state rules and regulations, or applicable work under federal guidance.
- c. The proposed price and terms of the agreement that is offered.

### ***D. Terms of the Consultant Services Agreement***

The terms of the consultant service agreement will include specific language regarding the provision of services; required insurance and indemnification; agreement options, continuation, and termination clauses; timing of invoicing and payments; and requirements for interaction with City staff, elected representatives, stakeholders, and the public.



## MEMORANDUM

**TO:** Prospective Bidders  
**FROM:** Raymond French  
**DATE:** July 2, 2015  
**TITLE:** **RFP for Sediment Analysis: Questions Answered**

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We have received a number of similar questions from prospective bidders that I would like to share with all interested firms.

1. Is there a boat launch on either impoundment?

*There are no designated boat launches on either impoundment. There are flat areas where recreational users access the impoundments to put in or take out their kayaks/canoes and fish, but there are no traditional concrete boat launches.*

2. Please clarify the requirement to conduct the sediment probes to bedrock. Typical studies of this nature probe to native substrate and the difference impacts the choice of equipment used for the sampling.

*The primary goal of the sediment analysis is to identify the costs and methods for sediment management if the City were to pursue dam removal in the future at one or both hydroelectric facilities. If a prospective bidder considers that level of study to be unnecessary in providing the answer to the primary question of the study, bids may state the primary recommendation of the bidder between (1) probing to bedrock and (2) probing to native sediment, and provide a cost estimate for each. If probing to native sediment is recommended, bids shall provide reasoning for that recommendation. The approved course of work as adopted by the Utility Advisory Board considering the recommendation of the group reviewing the proposals will identify the option selected.*

3. Please provide more information on the licensing analysis that showed a wide range of costs for sediment management.

*The attached Enclosure is the analysis of licensing options referred to in the RFP. Please see page 16 for the reference to the wide range of costs for sediment management in the case of dam removal.*

## **City of River Falls – Hydroelectric Operations Options**

### **Executive Summary**

The City of River Falls owns and operates two hydroelectric facilities located on the Kinnickinnic (Kinni) River. The two facilities, Junction Falls and Powell Falls, are located in the City, have a total installed capacity of 375 kW, and currently operate under a Minor Water Power Project license issued by the Federal Energy Regulatory Commission (FERC). The two hydroelectric facilities operate to generate electricity that is then sold to the City's electric customers, offsetting the need to purchase replacement power. The Project's FERC license (FERC P-10489) expires on 08/31/2018 and the City is currently in the process of relicensing the Project facilities. The Kinni River is designated as a Class I trout stream upstream and downstream of the Project, and Agencies and other stakeholders expressed interest in evaluating options that may result in the Project facilities being removed.

The City of River Falls contracted with TRC to assist the City by providing an alternatives analysis designed to assist the City in determining a course of action for the future of these facilities. Five options were evaluated: 1) FERC License Extension & Community Planning Process, 2) FERC License Application, 3) FERC License Application with a Settlement Agreement, 4) Surrender the License with Facilities in Place, and 5) Surrender the License with Dam Removal. TRC compiled a list of studies likely to be requested and associated cost estimates for each option.

Detailed information summarized below is outlined in the attached spreadsheets (Attachment A). Each sheet includes a summary of studies likely to be needed (ranked Low, Moderate, or High likelihood) for each option with cost estimates. For the License Extension Option we ranked the studies according to their value for the community-planning process. We included a range of low to high cost estimates, as study scope and costs are often negotiable and vary based on site-specific conditions. Where possible, we assumed City staff would work with the local university, Agencies, and stakeholders to conduct studies. Depending on the scope of study negotiated, this could help the City to gravitate more toward the low end of our estimates.

#### **Summary of Options:**

##### **Option 1: FERC License Extension & Community Planning Process**

Under Option 1, the City of River Falls would request a license extension from FERC. The City has initiated contact with members of FERC staff, who are evaluating the potential to grant a five to ten year extension. The extension request, if granted, would allow the City time to undergo its community planning process to thoroughly discuss the future of the hydroelectric projects, dams, and potential redevelopment of the river. Studies listed under Option 1 (Attachment A) are not required for a FERC license extension and, at the City's option, can be completed during the community planning process to help the City and its citizens evaluate current site conditions and potential future changes. During this planning process, the City would select the ultimate option (Option 2, 3, 4, or 5) they wish to pursue. Data gathered during the planning period may be utilized in the future, potentially reducing some costs for studies conducted under the future option chosen.

All of these studies are optional, and we believe some of the studies will add little value to the planning process. The low cost estimate excludes the "Low" likelihood studies, while the high cost estimate includes all of the studies listed in Attachment A. The cost estimate for Option 1 ranges from **\$2,000 to**

**\$223,000.** Note that the cost for this option would be added to whatever additional option the City determines to pursue when the extension expires.

### **Option 2: FERC License Application**

Under Option 2, the City would continue to pursue the Traditional Licensing Process (TLP) as originally planned. This option would allow the City to relicense and operate the hydroelectric facilities and generate power for the duration of the license (30 years), or until it determines it no longer wishes to operate all or a portion of the Project facilities. The objective of the studies listed under Option 2 are to provide sufficient information in the relicensing, per 18 CFR 4.61 (contents of application for a License for a Minor Water Power Project and Major Water Power Projects 5 MW or less), to allow FERC to prepare an Environmental Assessment and issue a new license. This option treats the licensing of the hydroelectric facilities as separate from the Kinni River Corridor planning process.

The low cost estimate excludes the “Low” likelihood studies, while the high cost estimate includes all of the studies listed in Attachment A. The cost estimate for Option 2 ranges from **\$218,000 to \$444,000.** This cost estimate also includes the range of costs to prepare a license application. It does not include any costs of future license requirements.

### **Option 3: FERC License Application with Settlement Agreement**

Under Option 3, the City would proceed with the FERC License Application with the addition of a Settlement Agreement among the City (as the Licensee), Agencies and other stakeholders. The objective of this option is to provide sufficient information in the relicensing process, per 18 CFR 4.61 (contents of application for a License for a Minor Water Power Project and Major Water Power Projects 5 MW or less), to allow FERC to prepare an Environmental Assessment, while also working with Agencies and other stakeholders to support the community-planning process for the Kinni River Corridor. The Settlement Agreement would need to address issues and concerns brought forward by the Agencies and other stakeholders and may allow the City to eliminate or decrease the scope of many of the studies in favor of using currently available data or easily developed data to determine necessary license requirements.

The low cost estimate excludes the “Low” likelihood studies, while the high cost estimate includes all of the studies listed in Attachment A. The cost estimate for Option 3 ranges from **\$191,000 to \$397,000.** In addition to studies, the cost estimate for this option includes an estimate for negotiating a Settlement Agreement and preparing the license application. It does not include any costs of future license requirements that result from the settlement.

### **Option 4: Surrender with Facilities in Place**

The City may choose to surrender its FERC license and maintain the two hydroelectric project dams without operating the generating facilities. The objective of this option is to provide sufficient information in a surrender application to allow FERC to prepare an Environmental Assessment, issue an order, and transfer dam safety requirements to the state of Wisconsin (18 CFR Part 6 Surrender or

Termination of License; state of Wisconsin Chapter 31 regarding dam safety). For the purpose of this analysis, it was assumed the City of River Falls would retain ownership of the hydroelectric facilities.<sup>1</sup>

Power generation would cease and the City would need to commit to specific plans maintaining the dams in a safe and stable manner. Continued dam safety oversight would be through the WDNR. The City would need to coordinate with the WDNR to determine requirements for maintaining the dams.

TRC does not believe any significant studies should be required for this option. Other than historic structures, and possibly Projects Costs and Socioeconomics, TRC has placed a “Low” likelihood of these studies being required. That being said, we cannot be certain how FERC will rule on the need for all of these studies. There are additional risks regarding the unknown requirements FERC may place on the Project prior to issuing a surrender order, such as removal of one or both dams.

A surrender application for a minor project would be in the form of a letter outlining the proposed disposition of the project. Supporting documentation from Agencies and other stakeholders would be helpful to the process.

The low cost estimate excludes the “Low” likelihood studies, while the high cost estimate includes all of the studies listed in Attachment A. The cost estimate for Option 4 ranges from **\$24,000 to \$236,000**. It does not include any costs of future maintenance requirements under WDNR oversight, other possible FERC requirements under the surrender order, or future costs associated with dam removal or other Kinni River projects.

#### **Option 5: Surrender with Dam Removal**

The City may choose to surrender its FERC license and propose removal of one or both dams.<sup>2</sup> The reasons for removal rather than simply surrender with facilities in place would be based on a community desire to remove the facilities or the City’s choice to eliminate all future dam safety obligations. The objective of this option is to provide sufficient information in the surrender-removal application to allow FERC to prepare an Environmental Assessment and issue an order (18 CFR Part 6, Surrender or Termination of License).

This option includes a variety of studies and activities that would likely be needed to ensure safe dam removal, stabilization of the river corridor, and minimization of environmental impacts. It includes cost estimates for removal, excavation and disposal of sediments, and surrender application preparation.

The low cost estimate excludes the “Low” likelihood studies, while the high cost estimate includes all of the studies listed in Attachment A. The cost estimate for Option 5 ranges from **\$660,600 to \$4,450,000**. The large range in the cost estimates is due to currently unknown site-specific characteristics, specifically any sediment removal from the impoundment. Studies outlined herein would provide detail needed to more accurately determine final costs. It should also be noted that costs for implementation of the Lake George Stormwater Plan are not included in this cost estimate.

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<sup>1</sup> When a licensee surrenders a Project license, FERC first looks for another owner to take over the license and operate the hydroelectric facilities. To avoid the possibility of an alternate operator taking over the license, the City would need to clearly communicate its desire to shut down the generation and would require support of the Agencies and stakeholders. Due to the size of these projects, although possible, we believe it is unlikely that anyone else will step forward with the intent to buy and operate the project.

<sup>2</sup> If one of the two dams is removed under this option, the remaining dam would fall under Wisconsin Department of Natural Resources Chapter 31 jurisdiction, as in Option 4.

### **Summary of Cost Estimates**

Cost estimates for each option are summarized below.

**Table 1. Low and High Cost Estimates for Hydroelectric Options**

<b>Option</b>	<b>Low Cost</b>	<b>High Cost</b>
Option 1: FERC License Extension & Community Planning Process (Ultimate disposition – the cost of the appropriate option is added to Option 1)	\$2,000	\$223,000
Option 2: FERC License Application (Relicensing)	\$218,000	\$444,000
Option 3: FERC License Application with Settlement Agreement	\$191,000	\$397,000
Option 4: Surrender with Facilities in Place (Does not consider future costs of dam removal and other River projects)	\$24,000	\$236,000
Option 5: Surrender with Dam Removal	\$660,600	\$4,450,000

**River Falls - Hydroelectric Facility Options**

**Option #1: FERC License Extension & Community Planning Process**

**Objective:** To provide time for the City to initiate and complete its public review and input process about the future of the hydroelectric projects, dams, and potential redevelopment of the river. Studies are likely to be done during the community planning process or optional (not specifically required by FERC).

Resource Considerations & Potential Study Needs for Option #1: FERC License Extension	Likelihood for Study	Planning Studies Cost* (Low)	Planning Studies Cost* (High)	Value of Information from Study
<b>Geology and Soils</b>				
<p>Numerous agencies and stakeholders brought up concerns regarding sediment in the impoundments. A sediment analysis was last conducted in the 1990s. This plan may be reviewed and updated. A bathymetric survey and sediment probe survey to determine depth to bedrock in Lakes George and Louise may be prepared. A digital model may be used to map the sediment depths and calculate sediment volumes in both lakes. Sediment core samples could be analyzed for contaminants, including sediment oxygen demand, total phosphorus, ammonia nitrogen, trace metals (As, Cd, Cr, Cu, Hg, Ni, Pb, Zn), and organic compounds (PAHs, PCBs, and pesticides).</p>	Low	\$ 20,000	\$ 40,000	High
<b>Water Resources</b>				
<p>Studies to address water quality and hydrology may need to be conducted. Basic water quality monitoring could include analysis of water temperature and modeling. Monitoring may take place upstream, downstream, and within both impoundments during the summer months (June - August). If studies are conducted, TRC recommends the City work with the University to complete.</p>	Low	\$ 3,000	\$ 10,000	Low
<b>Fish and Aquatic Resources</b>				
<p>The Kinni is classified as a Class I trout stream above and below the hydroelectric facilities. Agencies and stakeholders wish to protect this resource and want to understand the impacts the hydroelectric operations have on the fishery. According to Wisconsin DNR, there is information about the fishery in the river up and downstream of the projects, and there is no information about the fishery in the impoundments. An aquatic survey for fish, mussels, and macroinvertebrates may be conducted to document species and habitat present within the impoundments. TRC recommends working directly with WDNR and the University to conduct these surveys. Survey methods may include seining and/or electrofishing. The dams currently serve as a barrier to aquatic invasive species. A baseline aquatic invasive survey may be needed to document species present within the project area (between Division Street and 300' below Powell Falls, including South Fork up to Cascade Falls).</p>	Low	\$ 20,000	\$ 40,000	Low

<b>Wildlife and Botanical Resources</b>				
Wildlife and botanical resources within the project area may be documented. The potential presence of threatened and endangered species may be assessed by submitting a request to the Natural Heritage Inventory program at WDNR. Vegetative surveys documenting aquatic species, wetland species, and invasive species could also be conducted using an intuitive meander survey protocol during the active growing season. For this cost estimate, it was assumed the survey area would include 50' from the shoreline in the area between Division Street and 300' below Powell Falls, including the South Fork up to Cascade Falls.	Low	\$ 8,000	\$ 10,000	Low
<b>Recreation</b>				
A recreational study may be valuable in the planning process. Studies could include an inventory and survey of people fishing, kayaking, canoeing, swimming, hiking, walking, biking, rock climbing, picnicking, and viewing wildlife.	Low	\$ 10,000	\$ 20,000	High
<b>Aesthetics</b>				
An assessment of the aesthetic value of the existing Project and how it affects the community's "sense of place" may be undertaken. This could include an evaluation of possible alternative futures for the area with the restoration of the river falls. A visual impact assessment of the post-dam removal condition may be conducted.	Low	\$ 5,000	\$ 15,000	High
<b>Land Use</b>				
Current land uses within the Project boundary and on adjacent lands may be documented. Anticipated post-dam removal conditions could be reported.	Low	\$ 2,000	\$ 6,000	High
<b>Project Costs</b>				
A financial analysis would provide the City, agencies, and stakeholders with the financial analysis necessary to assess current hydroelectric operations and potential future improvements or changes. The analysis could include information pertaining to operating costs, income generation, electric rates for consumers, and employment impacts within the City.	Low	\$ 2,000	\$ 7,000	High
<b>Socioeconomics</b>				
A general description of the socio-economic conditions in the vicinity of the Project components including general land use patterns (e.g., urban, agricultural, forested), infrastructure in the Project area (water, sewer, gas lines), populations patterns, and sources of employment in the project vicinity.	Low	\$ 5,000	\$ 10,000	Moderate
<b>Alternatives Analysis</b>				
An alternatives analysis may be conducted to evaluate hydroelectric operation options through the City's Planning Process. The analysis could describe what alternatives were considered and why one option was chosen versus another option. This section also includes the City's public planning process, public meetings, and final report.	Low	\$ 15,000	\$ 50,000	High
<b>Permits and Licenses Required</b>				
A FERC license extension would be needed for this option. (This option will require consultation with the agencies and other stakeholders in order to gain concurrence with the extension prior to filing the request with FERC.)	Required	\$ 2,000	\$ 15,000	Required

**TOTAL\*\*    \$    2,000    \$    223,000**

\* Data gathered during the extension/planning period may be utilized in the future, decreasing some costs for studies conducted under the chosen option (2, 3, 4, or

\*\* The low cost estimate excludes the "Low" likelihood studies, while the high cost estimate includes all of the studies listed above.

**River Falls - Hydroelectric Facility Options**  
**Option #2: FERC License Application**

**Objective:** To provide sufficient information in the relicensing, per 18 CFR 4.61 (contents of application for a License for a Minor Water Project and Major Water Power Projects 5 MW or less) to allow FERC to prepare an Environmental Assessment and issue a new license.

Resource Considerations & Potential Study Needs for Option #2: FERC License Application	Likelihood for Study	Cost (Low)	Cost (High)
<b>Geology and Soils</b>			
<p>Numerous agencies and stakeholders brought up concerns regarding sediment in the impoundments. A sediment analysis was last conducted in the 1990s. This plan may be reviewed and updated. A bathymetric survey and sediment probe survey to determine depth to bedrock in Lakes George and Louise may be prepared. A digital model may be used to map the sediment depths and calculate sediment volumes in both lakes. Sediment core samples could be analyzed for contaminants, including sediment oxygen demand, total phosphorus, ammonia nitrogen, trace metals (As, Cd, Cr, Cu, Hg, Ni, Pb, Zn), and organic compounds (PAHs, PCBs, and pesticides).</p>	High	\$ 30,000	\$ 40,000
<b>Water Resources</b>			
<p>The Kinni River is classified as a Class I trout stream above and below the hydroelectric facilities. Agencies and stakeholders wish to protect this resource and want to understand the impacts the hydroelectric operations have on the fishery, including water quality. To better understand the potential effects of project operation on the river, studies to address water quality and hydrology were requested and would need to be conducted. Water quality monitoring may include analysis of water levels, stream flow, water temperatures, water chemistry (dissolved oxygen, phosphorus, pH), bacteria, pollutants, and turbidity. Monitoring may take place upstream, downstream, and within both impoundments during the summer months (June - August), following WDNR water quality monitoring protocols. TRC recommends the City work with the University to complete water quality studies. The range of costs represents sampling based on citizen monitoring protocol (low cost) and data sondes recording data 24/7 for three months (June to August) installed in two locations, downstream of each dam along with sampling in the flowages periodically over the same time frame (high cost).</p> <p>A hydrologic assessment may be conducted to monitor flow activity and verify compliance with run-of-river conditions. This could be accomplished using plant generation records and measuring flow above the Junction Falls flowage compared to the USGS gage downstream of the Powell Falls dam (USGS 05342000). A USGS gage was installed upstream of the City (USGS 05341854, Kinni River at Steeple Drive near Hammond, WI). Reactivating this gage or requesting installation of another closer to the City may be an option.</p> <p>The City can review and may need to revise stormwater plans for waters directly entering the impoundments. The Lake George Stormwater Plan (Plan) may provide useful information for this effort; implementation of this Plan is not included in the cost estimate.</p>	High	\$ 10,000	\$ 35,000

<b>Fish and Aquatic Resources</b>			
The Kinni is classified as a Class I trout stream above and below the hydroelectric facilities. Agencies and stakeholders wish to protect this resource and want to understand the impacts the hydroelectric operations have on the fishery. According to Wisconsin DNR, there is information about the fishery in the river up and downstream of the projects, and there is no information about the fishery in the impoundments. An aquatic survey for fish, mussels, and macroinvertebrates may be conducted to document species and habitat present within the impoundments. TRC recommends working directly with WDNR and the University to conduct these surveys. Survey methods may include seining and/or electrofishing. The dams currently serve as a barrier to aquatic invasive species. A baseline aquatic invasive survey may be needed to document species present within the project area (between Division Street and 300' below Powell Falls, including South Fork up to Cascade Falls).	High	\$ 40,000	\$ 60,000
<b>Wildlife and Botanical Resources</b>			
Wildlife and botanical resources within the river, wetlands, and littoral zone may be documented. The potential presence of threatened and endangered species may be assessed by submitting a request to the Natural Heritage Inventory program at WDNR. Vegetative surveys documenting aquatic species, wetland species, and invasive species could also be conducted using an intuitive meander survey protocol during the active growing season. For this cost estimate, it was assumed the survey area would include 50' from the shoreline in the area between Division Street and 300' below Powell Falls, including the South Fork up to Cascade Falls.	High	\$ 8,000	\$ 15,000
<b>Project Boundary</b>			
The project boundary will need to be officially defined (surveyed and mapped per FERC standards for Exhibit G, 18 CFR 4.41(h) and 4.39). A list of current land owners within and adjacent to the defined project boundary may also be generated. A map of the project boundary will need to be included in any application made to FERC for the project. For purposes of these studies, we are assuming the project boundary represents the area defined by Division Street (North), 300 ft downstream of the Powell Falls dam (south) and 50 feet on either side of the impoundments (east and west).	High	\$ 20,000	\$ 50,000
<b>Cultural Resources</b>			
Consultation with Wisconsin SHPO will be required to determine if the project/powerhouses are eligible for the National Register of Historic Places. If so, prepare the NPS documentation for registering the project and submit to Wisconsin SHPO. A Phase I archaeology assessment (literature research only) will need to be conducted to determine if there are documented archaeological resources associated with the project. We are not proposing site evaluations at this time. Any site assessment would need to be completed prior to disturbance along with consultation with the Wisconsin SHPO.	High	\$ 15,000	\$ 18,000
<b>Recreation</b>			
Recreational use of the project will need to be documented within the project area. If not already completed, an inventory of recreation associated with the project should be completed and mapped. The study may be expanded to include a survey of recreational users to determine any additional recreation that may be added.	High	\$ 10,000	\$ 30,000
<b>Aesthetics</b>			
An assessment of the aesthetic value of the existing Project and how it affects the community's "sense of place" may be undertaken.	Low	\$ 5,000	\$ 15,000

<b>Land Use</b>			
Current land uses within the Project boundary and on adjacent lands may be documented.	Low	\$ 2,000	\$ 6,000
<b>Project Costs</b>			
Some comments requested a financial analysis of hydroelectric operation. Exhibit A of a license application for a minor project (18 CFR §4.61) requires the licensee to identify certain estimated costs of the project. These are: 1) estimated capital costs and annual operation and maintenance expense of each proposed environmental measure, 2) an estimated cost to develop license application, 4) on-peak and off-peak values of project power and the basis for estimating the values, 5) estimated average annual increase or decrease in project generation and estimated increase or decrease in the value of the power due to a change in operation, 6) remaining undepreciated net investment or book value of project, 7) annual operation and maintenance expenses including insurance and administrative and general costs.	High	\$ 2,000	\$ 7,000
<b>Socioeconomics</b>			
A general description of the socio-economic conditions in the vicinity of the Project components including general land use patterns (e.g., urban, agricultural, forested), infrastructure in the Project area (water, sewer, gas lines), populations patterns, and sources of employment in the project vicinity.	Moderate	\$ 5,000	\$ 10,000
<b>Alternatives Analysis</b>			
An alternatives analysis may be conducted to evaluate hydroelectric operation options. The analysis may describe what alternatives were considered and why one option was chosen versus another option.	Not required in 18 CFR 4.61	\$ 0	\$ 0
<b>Permits and Licenses Required</b>			
A FERC license would be needed for hydro relicensing. The City is currently undergoing the Traditional Licensing process.	Required	\$ 75,000	\$ 150,000
A Wisconsin DNR 401 Water Quality Certificate or waiver will be required. The 401 WQC process involves consultation with the Wisconsin DNR, sending a letter requesting the 401 WQC or waiver and working with the Wisconsin DNR on conditions of the 401 WQC.	Required	\$ 3,000	\$ 8,000
<b>TOTAL*</b>		<b>\$ 218,000</b>	<b>\$ 444,000</b>

\* The low cost estimate excludes the "Low" likelihood studies, while the high cost estimate includes all of the studies listed above.

**River Falls - Hydroelectric Facility Options**

**Option #3: FERC License Application with Settlement Agreement**

**Objective:** To provide sufficient information in the relicensing, per 18 CFR 4.61 (contents of application for a License for a Minor Water Project and Major Water Power Projects 5 MW or less) to allow FERC to prepare an Environmental Assessment. The settlement agreement will hopefully allow the City to eliminate or decrease the scope of many of the studies in favor of using currently available data or easily developable data to determine necessary license requirements.

Resource Considerations & Potential Study Needs for Option #3: FERC License Application with Settlement Agreement	Likelihood for Study	Cost (Low)	Cost (High)
<b>Geology and Soils</b>			
<p>Numerous agencies and stakeholders brought up concerns regarding sediment in the impoundments. A sediment analysis was last conducted in the 1990s. This plan may be reviewed and updated. A bathymetric survey and sediment probe survey to determine depth to bedrock in Lakes George and Louise may be prepared. A digital model may be used to map the sediment depths and calculate sediment volumes in both lakes. Sediment core samples could be analyzed for contaminants, including sediment oxygen demand, total phosphorus, ammonia nitrogen, trace metals (As, Cd, Cr, Cu, Hg, Ni, Pb, Zn), and organic compounds (PAHs, PCBs, and pesticides).</p>	Moderate	\$ 10,000	\$ 25,000
<b>Water Resources</b>			
<p>The Kinni River is classified as a Class I trout stream above and below the hydroelectric facilities. Agencies and stakeholders wish to protect this resource and want to understand the impacts the hydroelectric operations have on the fishery, including water quality. Studies to address water quality and hydrology could be conducted. Water quality monitoring may include analysis of water levels, stream flow, water temperatures, water chemistry (dissolved oxygen, phosphorus, pH), bacteria, pollutants, and turbidity. Monitoring may take place upstream, downstream, and within both impoundments during the summer months (June - August), following WDNR water quality monitoring protocols. The range of costs represents sampling based on citizen monitoring protocol, working with the University and Project stakeholders.</p> <p>A hydrologic assessment may be conducted to monitor flow activity and verify compliance with run-of-river conditions. This could be accomplished using plant generation records and measuring flow above the Junction Falls flowage compared to the USGS gage downstream of the Powell Falls dam (USGS 05342000). A USGS gage was installed upstream of the City (USGS 05341854, Kinni River at Steeple Drive near Hammond, WI). Reactivating this gage or requesting installation of another closer to the City may be an option.</p> <p>The City can review and may need to revise stormwater plans for waters directly entering the impoundments. The Lake George Stormwater Plan (Plan) may provide useful information for this effort; implementation of this Plan is not included in the cost estimate.</p>	Moderate	\$ 5,000	\$ 15,000

<b>Fish and Aquatic Resources</b>			
<p>Studies to address fish and aquatic resources may need to be conducted. TRC recommends working with project partners to determine and summarize available aquatic data and evaluate future survey needs during the settlement process.</p> <p>The Kinni is classified as a Class I trout stream above and below the hydroelectric facilities. Agencies and stakeholders wish to protect this resource and want to understand the impacts the hydroelectric operations have on the fishery. According to Wisconsin DNR, there is information about the fishery in the river up and downstream of the projects, and there is no information about the fishery in the impoundments. An aquatic survey for fish, mussels, and macroinvertebrates may be conducted to document species and habitat present within the impoundments. TRC recommends working directly with WDNR and the University to conduct these surveys. Survey methods may include seining and/or electrofishing. The dams currently serve as a barrier to aquatic invasive species. A baseline aquatic invasive survey may be needed to document species present within the project area (between Division Street and 300' below Powell Falls, including South Fork up to Cascade Falls).</p>	Moderate	\$ 15,000	\$ 25,000
<b>Wildlife and Botanical Resources</b>			
<p>Wildlife and botanical resources within the river, wetlands, and littoral zone may be documented. The potential presence of threatened and endangered species may be assessed by submitting a request to the Natural Heritage Inventory program at WDNR. Vegetative surveys documenting aquatic species, wetland species, and invasive species could also be conducted using an intuitive meander survey protocol during the active growing season. For this cost estimate, it was assumed the survey area would include 50' from the shoreline in the area between Division Street and 300' below Powell Falls, including the South Fork up to Cascade Falls.</p>	Moderate	\$ 8,000	\$ 8,000
<b>Project Boundary</b>			
<p>The project boundary will need to be officially defined (surveyed and mapped per FERC standards for Exhibit G, 18 CFR 4.41(h) and 4.39). A list of current land owners within and adjacent to the defined project boundary may also be generated. A map of the project boundary will need to be included in any application made to FERC for the project. For purposes of these studies, we are assuming the project boundary represents the area defined by Division Street (North), 300 ft downstream of the Powell Falls dam (south) and 50 feet on either side of the impoundments (east and west).</p>	High	\$ 20,000	\$ 50,000
<b>Cultural Resources</b>			
<p>Consultation with Wisconsin SHPO will be required to determine if the project/powerhouses are eligible for the National Register of Historic Places. If so, prepare the NPS documentation for registering the project and submit to Wisconsin SHPO. A Phase I archaeology assessment (literature research only) will need to be conducted to determine if there are documented archaeological resources associated with the project. We are not proposing site evaluations at this time. Any site assessment would need to be completed prior to disturbance along with consultation with the Wisconsin SHPO.</p>	High	\$ 15,000	\$ 18,000

<b>Recreation</b>			
Recreational use of the project may need to be documented within the project area. If not already completed, an inventory of recreation associated with the project may be completed and mapped. The study may be expanded to include a survey of recreational users to determine any additional recreation that may be added.	Moderate - High	\$ 8,000	\$ 15,000
<b>Aesthetics</b>			
An assessment of the aesthetic value of the existing Project and how it affects the community's "sense of place" may be undertaken.	Low	\$ 5,000	\$ 15,000
<b>Land Use</b>			
Current land uses within the Project boundary and on adjacent lands may be documented.	Low	\$ 2,000	\$ 6,000
<b>Project Costs</b>			
Some comments requested a financial analysis of hydroelectric operation. Exhibit A of a license application for a minor project (18 CFR §4.61) requires the licensee to identify certain estimated costs of the project. These are: 1) estimated capital costs and annual operation and maintenance expense of each proposed environmental measure, 2) an estimated cost to develop license application, 4) on-peak and off-peak values of project power and the basis for estimating the values, 5) estimated average annual increase or decrease in project generation and estimated increase or decrease in the value of the power due to a change in operation, 6) remaining undepreciated net investment or book value of project, 7) annual operation and maintenance expenses including insurance and administrative and general costs.	High	\$ 2,000	\$ 7,000
<b>Socioeconomics</b>			
A general description of the socio-economic conditions in the vicinity of the Project components including general land use patterns (e.g., urban, agricultural, forested), infrastructure in the Project area (water, sewer, gas lines), populations patterns, and sources of employment in the project vicinity.	Moderate	\$ 5,000	\$ 10,000
<b>Alternatives Analysis</b>			
An alternatives analysis may be conducted to evaluate hydroelectric operation options. The analysis may describe what alternatives were considered and why one option was chosen versus another option.	Not required per 18 CFR 4.61	\$ 0	\$ 0
<b>Permits and Licenses Required</b>			
A FERC license would be needed for hydro relicensing. The City is currently undergoing the Traditional Licensing process.	Required	\$ 75,000	\$ 150,000
A Wisconsin DNR 401 Water Quality Certificate or waiver will be required. The 401 WQC process involves consultation with the Wisconsin DNR, sending a letter requesting the 401 WQC or waiver and working with the Wisconsin DNR on conditions of the 401 WQC.	Required	\$ 3,000	\$ 8,000
Settlement Agreement (negotiations and preparing document for signatures). This estimate assumes the settlement agreement would be negotiated in 3 to 4 months.	High	\$ 25,000	\$ 45,000
<b>TOTAL*</b>		<b>\$ 191,000</b>	<b>\$ 397,000</b>

\* The low cost estimate excludes the "Low" likelihood studies, while the high cost estimate includes all of the studies listed above.

**River Falls - Hydroelectric Facility Options**

**Option #4: Surrender the License with Facilities in Place**

To provide sufficient information in a surrender application to allow FERC to prepare an Environmental Assessment, issue an order and transfer dam safety requirements to the state of Wisconsin (18 CFR Part 6 Surrender or Termination of License; state of Wisconsin Chapter 31 regarding dam safety). The City of River Falls would retain ownership of the hydroelectric facilities.

**Objective:** FERC Regulations CFR 18 Part §6.1 Application for Surrender: "Every application for surrender of a license shall state the reason therefor; and except in the case of an application for surrender of a minor project, or for a transmission line only, shall be executed by the licensee and filed in the same form and manner as the application for license, and shall be accompanied by the license and all amendments thereof."

TRC does not believe any significant studies should be required for this option and accordingly, other than historic structures, and possibly Projects Costs and Socioeconomics, has placed a "Low" likelihood of these studies being required. That being said, we cannot be sure how FERC will rule on this issue. A surrender application for a minor project would be in the form of a letter outlining the proposed disposition.

Resource Considerations & Potential Study Needs for Option #4: Surrender the License with Facilities in Place	Likelihood for Study	Cost (Low)	Cost (High)
<b>Geology and Soils</b>			
Numerous agencies and stakeholders brought up concerns regarding sediment in the impoundments. A sediment analysis was last conducted in the 1990s; WDNR may request this plan be reviewed and updated. A bathymetric survey and sediment probe survey may be requested to determine depth to bedrock in Lakes George and Louise. A digital model may be used to map the sediment depths and calculate sediment volumes in both lakes. Sediment core samples could be analyzed for contaminants, including sediment oxygen demand, total phosphorus, ammonia nitrogen, trace metals (As, Cd, Cr, Cu, Hg, Ni, Pb, Zn), and organic compounds (PAHs, PCBs, and pesticides).	Low	\$ 20,000	\$ 40,000

<b>Water Resources</b>			
<p>The Kinni River is classified as a Class I trout stream above and below the hydroelectric facilities. Agencies and stakeholders wish to protect this resource and want to understand the impacts the hydroelectric facilities have on the fishery, including water quality. To better understand the potential effects of project infrastructure on the river, studies to address water quality and hydrology were requested and would need to be conducted. Water quality monitoring may include analysis of water levels, stream flow, water temperatures, water chemistry (dissolved oxygen, phosphorus, pH), bacteria, pollutants, and turbidity. Monitoring may take place upstream, downstream, and within both impoundments during the summer months (June - August), following WDNR water quality monitoring protocols. The range of costs represents sampling based on citizen monitoring protocol, working with the University and Project stakeholders.</p> <p>The City can review and may need to revise stormwater plans for waters directly entering the impoundments. The Lake George Stormwater Plan (Plan) may provide useful information for this effort; implementation of this Plan is not included in the cost estimate.</p>	Low	\$ 5,000	\$ 20,000
<b>Fish and Aquatic Resources</b>			
<p>The Kinni is classified as a Class I trout stream above and below the hydroelectric facilities. Agencies and stakeholders wish to protect this resource and want to understand the impacts the hydroelectric operations have on the fishery. According to Wisconsin DNR, there is information about the fishery in the river up and downstream of the projects, and there is no information about the fishery in the impoundments. An aquatic survey for fish, mussels, and macroinvertebrates may be conducted to document species and habitat present within the impoundments. TRC recommends working directly with WDNR and the University to conduct these surveys. Survey methods may include seining and/or electrofishing. The dams currently serve as a barrier to aquatic invasive species. A baseline aquatic invasive survey may be needed to document species present within the project area (between Division Street and 300' below Powell Falls, including South Fork up to Cascade Falls).</p>	Low	\$ 20,000	\$ 30,000
<b>Wildlife and Botanical Resources</b>			
<p>Wildlife and botanical resources within the river, wetlands, and littoral zone may be documented. The potential presence of threatened and endangered species may be assessed by submitting a request to the Natural Heritage Inventory program at WDNR. Vegetative surveys documenting aquatic species, wetland species, and invasive species could also be conducted using an intuitive meander survey protocol during the active growing season. For this cost estimate, it was assumed the survey area would include 50' from the shoreline in the area between Division Street and 300' below Powell Falls, including the South Fork up to Cascade Falls.</p>	Low	\$ 8,000	\$ 10,000

<b>Project Boundary</b>			
For purposes of these studies, we are assuming the project boundary represents the area defined by Division Street (North), 300 ft downstream of the Powell Falls dam (south) and 50 feet on either side of the impoundments (east and west). The state may want a clearly defined boundary to understand its regulatory authority but it is not clear that will be necessary for dam safety oversight.	Low	\$ 20,000	\$ 50,000
<b>Cultural Resources</b>			
Consultation with Wisconsin SHPO will be required to determine if the project/powerhouses are eligible for the National Register of Historic Places. If so, prepare the NPS documentation for registering the project and submit to Wisconsin SHPO. A Phase I archaeology assessment (literature research only) will need to be conducted to determine if there are documented archaeological resources associated with the project. We are not proposing site evaluations at this time. Any site assessment would need to be completed prior to disturbance along with consultation with the Wisconsin SHPO.	Moderate	\$ 15,000	\$ 18,000
<b>Recreation</b>			
Recreational use of the project may need to be documented within the project area. If not already completed, an inventory of recreation associated with the project may be completed and mapped. The study may be expanded to include a survey of recreational users to determine any additional recreation that may be added.	Low	\$ 8,000	\$ 15,000
<b>Aesthetics</b>			
An assessment of the aesthetic value of the existing Project and how it affects the community's "sense of place" may be undertaken.	Low	\$ 5,000	\$ 15,000
<b>Land Use</b>			
Current land uses within the Project boundary and on adjacent lands may be documented.	Low	\$ 2,000	\$ 6,000
<b>Project Costs</b>			
A financial analysis would provide the City, agencies, and stakeholders with the financial analysis necessary to assess current hydroelectric operations and potential future improvements or changes. The analysis could include information pertaining to operating costs, income generation, electric rates for consumers, and employment impacts within the City.	Moderate	\$ 2,000	\$ 7,000
<b>Socioeconomics</b>			
A general description of the socio-economic conditions in the vicinity of the Project components including general land use patterns (e.g., urban, agricultural, forested), infrastructure in the Project area (water, sewer, gas lines), populations patterns, and sources of employment in the project vicinity.	Moderate	\$ 5,000	\$ 10,000
<b>Alternatives Analysis</b>			
An alternatives analysis may be conducted to evaluate hydroelectric operation options. The analysis may describe what alternatives were considered and why one option was chosen versus another option.	Not required per 18 CFR Part 6	\$ 0	\$ 0
<b>Permits and Licenses Required</b>			
A FERC license surrender application would be needed for this option.	Required	\$ 2,000	\$ 15,000
<b>TOTAL*</b>		<b>\$ 24,000</b>	<b>\$ 236,000</b>

\* The low cost estimate excludes the "Low" likelihood studies, while the high cost estimate includes all of the studies listed above.

**River Falls - Hydroelectric Facility Options**

**Option #5: Surrender with the License with Dam Removal**

**Objective:** To provide sufficient information in the surrender-removal application to allow FERC to prepare an Environmental Assessment and issue an order (18 CFR Part 6, Surrender or Termination of License.)

Resource Considerations & Potential Study Needs for Option #5: Surrender the License with Dam Removal	Likelihood for Study	Cost (Low)	Cost (High)
<b>Geology and Soils</b>			
<p>Numerous agencies and stakeholders brought up concerns regarding sediment in the impoundments. A sediment analysis was last conducted in the 1990s. This plan may be reviewed and updated. A bathymetric survey and sediment probe survey to determine depth to bedrock in Lakes George and Louise may be prepared. A digital model may be used to map the sediment depths and calculate sediment volumes in both lakes. Sediment core samples could be analyzed for contaminants, including sediment oxygen demand, total phosphorus, ammonia nitrogen, trace metals (As, Cd, Cr, Cu, Hg, Ni, Pb, Zn), and organic compounds (PAHs, PCBs, and pesticides).</p>	High	\$ 30,000	\$ 40,000
<p>If the sediments are determined to be “special wastes” (contaminated) they may require removal and disposal at a special waste landfill. Costs associated with such disposal would include excavation costs, travel distance, and disposal fees. All three components are proportional to the quantity of sediment to be removed. Even if the sediments are not contaminated, some removal of sediments from the impoundments may be required to minimize mobilization of sediment downstream.</p> <p>The low end cost assumes soils are not contaminated and no sediments are removed. The high cost estimate represents the worst case scenario and assumes soils are contaminated.</p>	High	\$ 0	\$ 2,775,000
<p>Areas of erosion and bank slumping along the shoreline of the Kinni River and Project area tributaries that may be the result of lowered water levels due to dam removal may need to be identified and possibly stabilized.</p>	High	\$ 1,000	\$ 35,000
<p>Conduct engineering assessment of Maple, Division, Winter Street and foot bridge abutments as appropriate for scour impacts due to lower water levels and faster moving water.</p>	High	\$ 5,000	\$ 5,000

<b>Water Resources</b>			
<p>The Kinni River is classified as a Class I trout stream above and below the hydroelectric facilities. Agencies and stakeholders wish to protect this resource and want to understand the impacts the hydroelectric facilities have on the fishery, including water quality. To better understand the potential effects of project infrastructure on the river, studies to address water quality and hydrology were requested and would need to be conducted. Water quality monitoring may include analysis of water levels, stream flow, water temperatures, water chemistry (dissolved oxygen, phosphorus, pH), bacteria, pollutants, and turbidity. Monitoring may take place upstream, downstream, and within both impoundments during the summer months (June - August), following WDNR water quality monitoring protocols. The range of costs represents sampling based on citizen monitoring protocol, working with the University and Project stakeholders.</p> <p>The City can review and may need to revise stormwater plans for waters directly entering the impoundments. The Lake George Stormwater Plan (Plan) may provide useful information for this effort; implementation of this Plan is not included in the cost estimate.</p>	High	\$ 20,000	\$ 28,000
An analysis of existing thermal data may be undertaken to evaluate the thermal effect of the impoundments/loss of impoundments individually and collectively. This may require a modelling effort to predict thermal impacts of dam removal.	Moderate	\$ 2,000	\$ 10,000
A hydrologic assessment may be needed to predict post dam removal flows. The HEC-RAS modelling effort would use existing discharge and precipitation data to determine flows and elevation effects at various flood events.	High	\$ 5,000	\$ 15,000
Any wells or other infrastructure in the Project vicinity that is dependent on groundwater can be identified and monitored to determine if they are impacted following dam removal.	Moderate	\$ 1,000	\$ 3,000
Assess whether the chance of ice jams would increase following dam removal.	Low	\$ 5,000	\$ 15,000
<b>Fish and Aquatic Resources</b>			
<p>The Kinni is classified as a Class I trout stream above and below the hydroelectric facilities. Agencies and stakeholders wish to protect this resource and want to understand the impacts the hydroelectric operations have on the fishery. According to Wisconsin DNR, there is information about the fishery in the river up and downstream of the projects, and there is no information about the fishery in the impoundments. An aquatic survey for fish, mussels, and macroinvertebrates may be conducted to document species and habitat present within the impoundments. TRC recommends working directly with WDNR and the University to conduct these surveys. Survey methods may include seining and/or electrofishing. Based on a determination by WDNR, a mussel relocation effort may be required at the time of dam removal. Similarly, other aquatic organisms stranded as the time of dam removal may also have to be relocated. The dams currently serve as a barrier to aquatic invasive species. A baseline aquatic invasive survey may be needed to document species present within the project area (between Division Street and 300' below Powell Falls, including South Fork up to Cascade Falls).</p>	High	\$ 11,000	\$ 22,000

<b>Wildlife and Botanical Resources</b>			
Wildlife and botanical resources within the Project boundary may be documented based on readily available existing information. Anticipated post-dam removal conditions could be reported.			
Wetlands within the Project boundary may be delineated. Anticipated post-dam removal conditions, including changes in wetland quantity and type may be reported.	High	\$ 8,600	\$ 12,000
The potential presence of threatened and endangered species may be assessed by submitting a request to the Natural Heritage Inventory program at WDNR. If rare, threatened, or endangered (RTE) species are found, and deemed likely to be impacted by dam removal, an incidental take permit from DNR may be required. Determine if RTE species presence would impact dam removal timing.			
<b>Project Boundary</b>			
The project boundary will need to be officially defined (surveyed and mapped per FERC standards for Exhibit G, 18 CFR 4.41(h) and 4.39). A list of current land owners within and adjacent to the defined project boundary may also be generated. A map of the project boundary will need to be included in any application made to FERC for the project. For purposes of these studies, we are assuming the project boundary represents the area defined by Division Street (North), 300 ft downstream of the Powell Falls dam (south) and 50 feet on either side of the impoundments (east and west).	Low	\$ 20,000	\$ 50,000
<b>Cultural Resources</b>			
Consultation with Wisconsin SHPO will be required to determine if the project/powerhouses are eligible for the National Register of Historic Places. If so, prepare documentation for registering the Project and submit to Wisconsin SHPO. If a historic architecture survey of the facilities has not been undertaken, one will need to be conducted. If the facilities are found to be NRHP-eligible, a Memorandum of Agreement with the WI SHPO will be developed, which may include the need for Historic American Building Survey and a Historic American Engineering Record (HABS/HAER) recordation of any structures that will be altered as part of dam removal.	High	\$ 15,000	\$ 20,000
The Wisconsin SHPO and local tribes should also be consulted to determine if there is any documentation of pre-contact (Native American) and/or post-contact sites were historically located within the area of the impoundments. In addition, a Phase I archaeology assessment (literature research only) will need to be conducted to determine if there are documented archaeological resources associated with the Project. No site evaluations are proposed at this time. Any site assessment would need to be completed prior to disturbance along with consultation with the Wisconsin SHPO. Presence of archaeological sites could impact how sediments are handled.			
HABS/HAER documentation.	Low	\$ 25,000	\$ 40,000
<b>Recreation</b>			
Current recreation facilities associated with the Project may need to be identified. Potential impacts to the recreation facilities due to dam removal should also be identified and potential mitigation proposed.	High	\$ 3,000	\$ 5,000

<b>Aesthetics</b>			
An assessment of the aesthetic value of the existing Project and how it affects the community's "sense of place" may be undertaken. This could include an evaluation of possible alternative futures for the area with the restoration of the river falls. A visual impact assessment of the post-dam removal condition will be conducted.	Moderate	\$ 10,000	\$ 15,000
<b>Land Use</b>			
Current land uses within the Project boundary and on adjacent lands should be documented. Anticipated post-dam removal conditions can be reported.	Moderate	\$ 2,000	\$ 6,000
A restoration plan should be developed. This plan would outline restoration activities that would take place following dam removal.	High	\$ 10,000	\$ 25,000
<b>Project Costs</b>			
A financial analysis would provide the City, agencies, and stakeholders with the financial analysis necessary to assess current hydroelectric operations and potential future improvements or changes. The analysis could include information pertaining to operating costs, income generation, electric rates for consumers, and employment impacts within the City.	High	\$ 2,000	\$ 7,000
<b>Socioeconomics</b>			
A general description of the socio-economic conditions in the vicinity of the Project components including general land use patterns (e.g., urban, agricultural, forested), infrastructure in the Project area (water, sewer, gas lines), populations patterns, and sources of employment in the project vicinity.	Moderate	\$ 5,000	\$ 12,000
<b>Alternatives Analysis</b>			
An alternatives analysis may be conducted to evaluate hydroelectric operation options. The analysis may describe what alternatives were considered and why one option was chosen versus another option.	Not required per 18 CFR Part 6	\$ 0	\$ 0
<b>Dam Deconstruction/Removal</b>			
An alternatives analysis may be conducted to assess the various options for dam removal. The analysis can include consideration of one or both dams being removed, the extent of removal (full or partial) methodology for removal (controlled blast, ram hoe, use of coffer dams) and constructability of the alternatives.			
Other considerations could include the need for pre- and post-blast surveys, the length of time needed for dam removal, noise generation, traffic constraints, and debris removal and disposal. In addition, public safety issues must be considered both during the active removal phase and the projects final condition. TRC highly recommends that local contractors with deconstruction experience be consulted regarding the physical dam removal process. There also should be assurance that remaining structures are left in a safe and stable condition.	High	\$ 10,000	\$ 50,000
Physical removal and disposal of the dam(s).*	High	\$ 500,000	\$ 1,200,000

<b>Permits and Licenses Required</b>			
A FERC license surrender application needs to be developed. This application should provide sufficient information to allow FERC to prepare an Environmental Assessment (EA) and issue an order. In addition, the U.S. Army Corps of Engineers will have to issue a Section 404 permit if there is any in water work, which there undoubtedly will be. The Wisconsin DNR will have to issue a Section 401 Water Quality Certification. Ideally, essentially the same application can be used for all three agencies. In addition, local (county or city) permits may be needed. These could include demolition and waste disposal permits.	Required	\$ 20,000	\$ 60,000

**TOTAL\*\*    \$    660,600    \$    4,450,000**

\* Cost may be higher depending on the removal process and requirements for structural integrity during removal.

\*\* The low cost estimate excludes the "Low" likelihood studies, while the high cost estimate includes all of the studies listed above.

## Appendix F

44 FERC 162 298

2

UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

River Falls Municipal Utility      Project No. 10489-000  
Wisconsin

ORDER ISSUING LICENSE  
(Minor Project)  
(Issued September 27, 1988)

River Falls Municipal Utility filed a license application under Part I of the Federal Power Act (Act) to operate and maintain the constructed River Falls Project located on the Kinnickinnic River, in Pierce County, Wisconsin. The project would affect the interests of interstate or foreign commerce.

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

The State of Wisconsin Department of Natural Resources (DNR) filed a motion to intervene in this proceeding, requesting that certain conditions be included in any license issued. The DNR concerns have been addressed in the environmental assessment (EA) for the River Falls Project and provided for by license articles 401, 402 and 403.

Section 10(a)(2)-Comprehensive Plans

Section 10(a)(2) of the Act requires the Commission to consider the extent to which a project is consistent with federal or state comprehensive plans (where they exist) for improving, developing, or conserving a waterway or waterways affected by the project. The Commission provided an interpretation of comprehensive plans under section 10(a)(2) 1/ that is revised by Order Granting Rehearing, issued April 27, 1988. 2/ In granting rehearing, the Commission instructed the Director, Office of Hydropower Licensing, to request the state and federal agencies to file plans they believe meet the revised guidelines. Until the process is completed, the staff will consider all available plans pursuant to section 10(a)(2).

1/ Order No. 481, 52 FED. REG. 39,905 (October 26, 1987), III FERC STATS. & REGS. ¶ 30,773 (1987).

2/ Order No. 481-A, 43 FERC ¶ 61,120 (April 27, 1988).

The staff reviewed three plans that address various aspects of waterway management in relation to the proposed project. 3/ No conflicts were found.

Based upon a review of the agency and public comments filed in this proceeding, and on the staff's independent analysis, the River Falls Hydroelectric Project is best adapted to a comprehensive plan for the Kinnickinnic River.

Recommendations of Federal and State Fish and Wildlife Agencies

Section 10(j) of the Act requires the Commission to include license conditions, based on recommendations of federal and state fish and wildlife agencies, for the protection, mitigation, and enhancement of fish and wildlife. In the EA for the River Falls Project attached to and made part of this license, the staff addresses the concerns of the federal and state fish and wildlife agencies, and makes recommendations consistent with those of the agencies, except as indicated below.

The Department of the Interior, by letter dated April 5, 1988, recommends that the Commission require the licensee to survey two transmission lines that cross a wetland in the Powell Falls impoundment to determine if these lines are a hazard to water-fowl. Since these lines are not part of the project to be licensed, the Commission cannot require the licensee to conduct the survey to determine mitigative measures. Therefore, Interior's recommendation is outside the scope of Section 10(j). The staff discussed this with the U.S. Fish and Wildlife Service personnel and no further negotiations are necessary (personal communication, Cathy Carnes, Fish and Wildlife Biologist, U.S. Fish and Wildlife Service, Green Bay, Wisconsin, August 1, 1988).

Summary of Findings

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

3/ Wisconsin Water Quality, Report to Congress, 1986, Wisconsin Department of Natural Resources; Wisconsin Water Quality Program, St. Croix River Basin Areawide Water Quality Management Plan, October 1980, Wisconsin Department of Natural Resources; Wisconsin's 1986-91 Statewide Comprehensive Outdoor Recreation Plan, 1986, Wisconsin Department of Natural Resources.

The design of this project is consistent with the engineering standards governing dam safety. The project will be safe if operated and maintained in accordance with the requirements of this license. Analysis of related issues is provided in the Safety and Design Assessment attached to this order.

The Director, Office of Hydropower Licensing, concludes that the project would not conflict with any planned or authorized development, and would be best adapted to comprehensive development of the waterway for beneficial public uses.

The Director orders:

(A) This license is issued to River Falls Municipal Utility (licensee), for a period of 30 years, effective the first day of the month in which this order is issued, to operate and maintain the River Falls Project. This license is subject to the terms and conditions of the Act, which is incorporated by reference as part of this license, and subject to the regulations the Commission issues under the provisions of the Act.

(B) The project consists of:

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

<u>Exhibit G-</u>	<u>FERC No.10489-</u>	<u>Showing</u>
1	8	Project Location & Impoundment Map

(2) Project works consisting of: (1) Upper facilities; (a) a 140-foot-long and 32-foot-high concrete dam; (b) a reservoir with a surface area of 15.5 acres and a storage capacity of 142.7 acre-feet at elevation 865.3 m.s.l.; (c) an 80-foot-long by 6-foot-diameter penstock; (d) a powerhouse containing one generating unit rated at 250 kW; (e) the 2,400-volt generator leads and the 50-foot-long, 2,400-volt transmission cable; and (f) appurtenant facilities. (2) Lower facilities; (a) a 110-foot-long and 16.5-foot-high concrete dam located approximately 0.5 mile downstream of the upper dam; (b) a reservoir with a surface area of 15.4 acres and a storage capacity of 37 acre-feet at elevation 820 feet m.s.l.; (c) a powerhouse containing one generating unit rated at 125 kW; (d) the 2,400-volt generator leads and the 2500-foot-long, 2,400-volt transmission line; and (e) appurtenant facilities.

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

or other rights that are necessary or appropriate in the operation or maintenance of the project.

(C) The exhibit G described above and those sections of exhibits A and F recommended for approval in the attached Safety and Design Assessment are approved and made part of the license.

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

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

(E) This license is subject to the articles set forth in Form L-12, (October 1975), entitled "Terms and Conditions of License for Constructed Minor Project Affecting the Interests of Interstate or Foreign Commerce", and the following additional articles:

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

For the purpose of reimbursing the United States for the cost of administration of Part I of the Act, a reasonable amount as determined in accordance with the provisions of the Commission's regulations in effect from time to time. The authorized installed capacity for that purpose is 500 horsepower.

Article 202. The licensee, within 90 days of completion of the proposed Junction Falls Dam rehabilitation, shall file for approval by the Commission, revised exhibits A and F to describe and show the Junction Falls Dam as-rehabilitated.

Article 401. The licensee shall operate the River Falls Project in an instantaneous run-of-river mode to protect the fish and wildlife resources in the Kinnickinnic River. The licensee,

4/ At the expiration of this license, any license application filed, including the licensee's, will be treated as an original license application. The municipal preference provisions of section 7(a) of the Act will apply.

15 THIS DAM

in operating the project in an instantaneous run-of-river mode, shall minimize fluctuations of each reservoir surface elevation, i.e., maintain the discharge from each powerhouse that approximates the instantaneous sum of inflow to each reservoir. The instantaneous run-of-river operation may be temporarily modified if required by operating emergencies beyond the control of the licensee and for short periods upon mutual agreement between the licensee and the Wisconsin Department of Natural Resources.

*rise  
lower = 1'*

Article 402. The licensee, after consulting with the Wisconsin Department of Natural Resources (WDNR), shall install three streamflow gauges in the project reservoirs and in the Kinnickinnic River to monitor compliance with the instantaneous run-of-river mode of operation, as stated in article 401. One flow gauge shall be installed at each of the following locations: (1) above Junction Falls dam to be visible from the Falls Street Bridge; (2) above the Powell Falls dam to be visible from the Powell Falls powerhouse; and (3) in the tailwater downstream of the Powell Falls dam to be visible from the Powell Falls powerhouse. The gauges shall be installed within one year from the date of issuance of this license.

Article 403. The licensee, after consulting with the Wisconsin Department of Natural Resources and the U.S. Fish and Wildlife Service, and within 1 year from the issuance date of this license, shall provide: (1) a sign upstream of the dams to warn upstream boaters of the presence of the dams; (2) a sign identifying the Junction Falls take-out point; and (3) a portage route around the dams for boaters. Within 3 months of completing these facilities, the licensee shall file as-built drawings with the Commission showing the type and location of these facilities. In addition, the licensee shall operate and maintain, or arrange for the operation and maintenance of the recreational facilities during the term of the license.

Article 404. (a) In accordance with the provisions of this article, the licensee shall have the authority to grant permission for certain types of use and occupancy of project lands and waters and to convey certain interests in project lands and waters for certain types of use and occupancy, without prior Commission approval. The licensee may exercise the authority only if the proposed use and occupancy is consistent with the purposes of protecting and enhancing the scenic, recreational, and other environmental values of the project. For those purposes, the licensee shall also have continuing responsibility to supervise and control the use and occupancies for which it grants permission, and to monitor the use of, and ensure compliance with the covenants of the instrument of conveyance for, any interests that it has conveyed, under this article. If a permitted use and occupancy violates any condition of this article or any other condition imposed by the licensee for protection and enhancement of the project's scenic, recreational,

or other environmental values, or if a covenant of a conveyance made under the authority of this article is violated, the licensee shall take any lawful action necessary to correct the violation. For a permitted use or occupancy, that action includes, if necessary, cancelling the permission to use and occupy the project lands and waters and requiring the removal of any non-complying structures and facilities.

(b) The type of use and occupancy of project lands and water for which the licensee may grant permission without prior Commission approval are: (1) landscape plantings; (2) non-commercial piers, landings, boat docks, or similar structures and facilities that can accommodate no more than 10 watercraft at a time and where said facility is intended to serve single-family type dwellings; and (3) embankments, bulkheads, retaining walls, or similar structures for erosion control to protect the existing shoreline. To the extent feasible and desirable to protect and enhance the project's scenic, recreational, and other environmental values, the licensee shall require multiple use and occupancy of facilities for access to project lands or waters. The licensee shall also ensure, to the satisfaction of the Commission's authorized representative, that the use and occupancies for which it grants permission are maintained in good repair and comply with applicable state and local health and safety requirements. Before granting permission for construction of bulkheads or retaining walls, the licensee shall: (1) inspect the site of the proposed construction, (2) consider whether the planting of vegetation or the use of riprap would be adequate to control erosion at the site, and (3) determine that the proposed construction is needed and would not change the basic contour of the reservoir shoreline. To implement this paragraph (b), the licensee may, among other things, establish a program for issuing permits for the specified types of use and occupancy of project lands and waters, which may be subject to the payment of a reasonable fee to cover the licensee's costs of administering the permit program. The Commission reserves the right to require the licensee to file a description of its standards, guidelines, and procedures for implementing this paragraph (b) and to require modification of those standards, guidelines, or procedures.

(c) The licensee may convey easements or rights-of-way across, or leases of, project lands for: (1) replacement, expansion, realignment, or maintenance of bridges and roads for which all necessary state and federal approvals have been obtained; (2) storm drains and water mains; (3) sewers that do not discharge into project waters; (4) minor access roads; (5) telephone, gas, and electric utility distribution lines; (6) non-project overhead electric transmission lines that do not require erection of support structures within the project boundary; (7) submarine, overhead, or underground major telephone distribution cables or major electric distribution lines (69-kV or less); and (8) water intake or pumping facilities that do not extract more than one

million gallons per day from a project reservoir. No later than January 31 of each year, the licensee shall file three copies of a report briefly describing for each conveyance made under this paragraph (c) during the prior calendar year, the type of interest conveyed, the location of the lands subject to the conveyance, and the nature of the use for which the interest was conveyed.

(d) The licensee may convey fee title to, easements or rights-of-way across, or leases of project lands for: (1) construction of new bridges or roads for which all necessary state and federal approvals have been obtained; (2) sewer or effluent lines that discharge into project waters, for which all necessary federal and state water quality certification or permits have been obtained; (3) other pipelines that cross project lands or waters but do not discharge into project waters; (4) non-project overhead electric transmission lines that require erection of support structures within the project boundary, for which all necessary federal and state approvals have been obtained; (5) private or public marinas that can accommodate no more than 10 watercraft at a time and are located at least one-half mile from any other private or public marina; (6) recreational development consistent with an approved Exhibit R or approved report on recreational resources of an Exhibit E; and (7) other uses, if: (i) the amount of land conveyed for a particular use is five acres or less; (ii) all of the land conveyed is located at least 75 feet, measured horizontally, from the edge of the project reservoir at normal maximum surface elevation; and (iii) no more than 50 total acres of project lands for each project development are conveyed under this clause (d)(7) in any calendar year. At least 45 days before conveying any interest in project lands under this paragraph (d), the licensee must submit a letter to the Director, Office of Hydropower Licensing, stating its intent to convey the interest and briefly describing the type of interest and location of the lands to be conveyed (a marked exhibit G or K map may be used), the nature of the proposed use, the identity of any federal or state agency official consulted, and any federal or state approvals required for the proposed use. Unless the Director, within 45 days from the filing date, requires the licensee to file an application for prior approval, the licensee may convey the intended interest at the end of that period.

(e) The following additional conditions apply to any intended conveyance under paragraph (c) or (d) of this article:

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

(2) Before conveying the interest, the licensee shall determine that the proposed use of the lands to be conveyed is not inconsistent with any approved exhibit R or approved report on recreational resources of an exhibit E; or, if the project does not have an approved exhibit R or approved report on recreational resources, that the lands to be conveyed do not have recreational value.

(3) The instrument of conveyance must include covenants running with the land adequate to ensure that: (i) the use of the lands conveyed shall not endanger health, create a nuisance, or otherwise be incompatible with overall project recreational use; and (ii) the grantee shall take all reasonable precautions to insure that the construction, operation, and maintenance of structures or facilities on the conveyed lands will occur in a manner that will protect the scenic, recreational, and environmental values of the project.

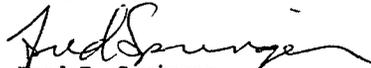
(4) The Commission reserves the right to require the licensee to take reasonable remedial action to correct any violation of the terms and conditions of this article, for the protection and enhancement of the project's scenic, recreational, and other environmental values.

(f) The conveyance of an interest in project lands under this article does not in itself change the project boundaries. The project boundaries may be changed to exclude land conveyed under this article only upon approval of revised exhibit G or K drawings (project boundary maps) reflecting exclusion of that land. Lands conveyed under this article will be excluded from the project only upon a determination that the lands are not necessary for project purposes, such as operation and maintenance, flowage, recreation, public access, protection of environmental resources, and shoreline control, including shoreline aesthetic values. Absent extraordinary circumstances, proposals to exclude lands conveyed under this article from the project shall be consolidated for consideration when revised exhibit G or K drawings would be filed for approval for other purposes.

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

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

(G) This order is issued under authority delegated to the Director and is final unless appealed to the Commission by any party within 30 days from the issuance date of this order. Filing an appeal does not stay the effective date of this order or any date specified in this order. The licensee's failure to appeal this order shall constitute acceptance of the license.

  
 Fred E. Springer  
 Director, Office of  
 Hydropower Licensing

ENVIRONMENTAL ASSESSMENT 1/  
 FEDERAL ENERGY REGULATORY COMMISSION  
 OFFICE OF HYDROPOWER LICENSING,  
 DIVISION OF PROJECT REVIEW

August 30, 1988

River Falls Municipal Hydroelectric Project

FERC Project No. 10489-000

A. APPLICATION

1. Application type: minor license, existing dam.
2. Date filed with the Commission: October 15, 1987.
3. Applicant: River Falls Municipal Utility.
4. Water body: Kinnickinnic River River basin: St. Croix
5. Nearest city: River Falls, Wisconsin
6. Location: The Kinnickinnic River in Pierce County, Wisconsin

B. PURPOSE AND NEED FOR ACTION

1. Purpose:

The purpose of the River Falls Municipal Hydroelectric project is to assist in meeting the customer power requirements of the municipal utility of the city of River Falls, Wisconsin.

2. Need for power:

The power from this existing project will continue to be useful in meeting a small part of the current and projected future need for power for the Mid-American Interpool Network Reliability Council region. In 1987, the project supplied 2.26 gigawatthours of hydroelectric energy, or about 3 percent of the applicant's total energy requirement, thereby reducing the amount of fossil-fueled electric power generation that would be purchased from investor-owned utilities in the area. Hence, the project contributes to the conservation of nonrenewable fossil fuels and to the reduction in emission of noxious byproducts caused by the combustion of fossil fuels. On this basis, the staff concludes that a need for the project power exists.

1/ Figures and attachments referenced in the text are omitted from this document due to reproduction requirements.

## C. EXISTING PROJECT AND ALTERNATIVES

## 1. Project Description:

The existing, unlicensed River Falls project consists of the Junction Falls and the Powell Falls developments (figure 1). The Junction Falls development consists of: (a) an existing 140-foot-long and 32-foot-high concrete dam; (b) an existing reservoir with a surface area of 15.5 acres and a storage capacity of 142.7 acre-feet at elevation 865.3 mean sea level (msl); (c) an existing 80-foot-long, 6-foot diameter penstock; (d) an existing powerhouse containing one generating unit rated at 250 kilowatts (kW); (e) the existing 50-foot-long transmission line; and (f) related facilities (figure 2). The Powell Falls development consists of: (a) an existing 110-foot-long and 16.5-foot-high concrete dam located approximately 0.5 mile downstream of the upper dam; (b) an existing reservoir with a surface area of 15.4 acres and a storage capacity of 37 acre-feet at elevation 820 feet msl; (c) an existing powerhouse containing one generating unit rated at 125 kW; (d) the existing 2500-foot-long transmission line; and (e) related facilities (figure 3). The estimated average annual energy output for the River Falls project is 2,000,000 kWh.

The Junction Falls dam was originally constructed in 1896 and was renovated in 1948 to generate electricity. The Powell Falls dam was originally built in 1903 and was renovated in 1948 and again in 1966. Each facility has been operating in a run-of-river mode since 1975. The project was previously operated in a peaking mode. The mode of operation was modified pursuant to a request from the Wisconsin Department of Natural Resources.

## 2. Applicant's proposed mitigative measures.

a. Construction. No new construction is anticipated therefore, no mitigative measures are proposed.

b. Operation. To reduce the impacts of operating the project, the applicant proposes to maintain the present run-of-river mode of operation and to enhance the recreational opportunities in the project area by providing canoe portage around the dams, and by installing signs at the Junction Falls take-out point. No other changes to the existing facilities are proposed.

3. Federal lands affected. There are no federal lands either in or adjacent to the project area and no such lands would be affected.

## 4. Alternatives to Licensing the Project

- a.  No reasonable action alternative has been found.  
 b.  Action alternative: Denial of the License.

Denying the license would result in removal of the project facilities and would preclude the city of River Falls from generating power at the site. To replace the power lost by removing the project facilities the city would need to consider developing other sources of energy, reducing the energy demand by employing conservation measures, or purchasing additional power from another utility. The city of River Falls has a fossil-fueled generating plant immediately adjacent to the Junction Falls development. If the license is denied and project facilities are removed, expanding the generating capacity of this plant may be an alternative for replacing the power lost by removing the River Falls Hydroelectric project.

## D. CONSULTATION AND COMPLIANCE

## 1. Fish and wildlife agency consultation (Fish &amp; Wildlife Coordination Act).

- a. U.S. Fish & Wildlife Service (FWS):  Yes.  No.  
 b. Wisconsin Department of Natural Resources:  Yes.  No.  
 c. National Marine Fisheries Service (NMFS):  Yes.  No.

## 2. Section 7 consultation (Endangered Species Act).

- a. Listed species:  None.  Present.  
 b. Consultation:  Not required.  
 Required.

The project is within the general range of the peregrine falcon (endangered), the bald eagle (threatened), and the prairie bush-clover (threatened). The FWS states that because no new construction of facilities or access roads is proposed, the project would not affect the peregrine falcon, bald eagle, or prairie bush-clover (letter from Janet M. Smith, Field Supervisor, U.S. Fish and Wildlife Service, Green Bay, Wisconsin, March 22, 1988).

## 3. Section 401 certification (Clean Water Act).

Section 401 Water Quality Certification was granted by the Wisconsin Department of Natural Resources (WDNR) on September 9, 1986.

## 4. Cultural resource consultation (Historic Preservation Act).

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

## 5. Recreational consultation (Federal Power Act).

- a. U.S. Owners:  Yes.  No.  
 b. NPS:  Yes.  No.  
 c. State(s):  Yes.  No.

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

The St. Croix River, from its headwaters to its confluence with the Mississippi River, is part of the National Wild and Scenic River System. The Kinnickinnic River is not part of, and is not being considered for inclusion in, the National Wild and Scenic River System.

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

Status:  None.  Designated.  
 Determination completed:    /   /   .  
 Administering agency: \_\_\_\_\_.

## E. COMMENTS

1. The following agencies and entities provided comments on the application or filed a motion to intervene in response to the public notice dated January 29, 1988. The applicant responded to the comments and interventions by a letter dated April 21, 1988.

<u>Commenting agencies and other entities</u>	<u>Date of letter</u>
Wisconsin Department of Natural Resources	February 23, 1988
Department of the Interior	April 5, 1988
<u>Motion to intervene</u>	<u>Date of motion</u>
Wisconsin Department of Natural Resources	March 28, 1988

## F. AFFECTED ENVIRONMENT

1. General description of the St. Croix River Basin.

The St. Croix River forms the northern border between Minnesota and Wisconsin and is a major tributary of the upper Mississippi River. The drainage area of the St. Croix River Basin is 7,650 square miles. The river flows through rolling glacial terrain, including agricultural and forest lands typical of the upper midwest region. The St. Croix River Basin has an abundant supply of both ground- and surface water, and the hundreds of lakes scattered throughout the basin are the primary source of water for the river. The average annual flow of the

St. Croix River at its confluence with the Mississippi is 4,200 cubic feet per second (cfs). Elevations in the basin range from 1,730 feet at the highest point to 675 feet at the confluence of the St. Croix and Mississippi Rivers. The entire mainstem St. Croix River is a Wild and Scenic River under the National Wild and Scenic Rivers System.

The Kinnickinnic River, a small tributary of the St. Croix River, is located in the lower portion of the basin about 30 miles southeast of St. Paul, Minnesota (figure 4). The river is approximately 40 miles long and has a drainage area of 174 square miles. The Kinnickinnic River flows through primarily agricultural land in its headwaters and through urban and suburban land near the confluence with the St. Croix River.

2. Existing Hydropower Projects

There are no pending applications for license in the St. Croix River Basin other than the River Falls Project. However, there are 11 other hydropower projects in the St. Croix River Basin. Only three of these projects are licensed.

The following is a list of the existing licensed and unlicensed hydropower projects and the pending license applications in the St. Croix River Basin, as of August 1, 1988.

<u>Project Name</u>	<u>FERC Project No.</u>	<u>River</u>
Powell Falls*	10489 (pending)	Kinnickinnic
Junction Falls*	10489 (pending)	Kinnickinnic
Apple River*		Apple
Riverdale*		Apple
Black Brook	2894	Apple
Balsam Lake*		Balsam
St. Croix Falls*		St. Croix
Clam Falls*		Clam
Danbury*		Yellow
Grodon*		Eau Claire
Nancy*		Totagatic
Trego	2711	Namekagon
Hayward	2417	Namekagon

## \* Unlicensed projects

The important natural resources within the St. Croix River Basin are related to the mainstem St. Croix River's designation as a Wild and Scenic River under the National Wild and Scenic Rivers System. Licensing the River Falls project, an operating, unlicensed hydropower development on the Kinnickinnic River, would not involve any new construction or changes in project operation. Therefore, continued operation of the project would not contribute to adverse cumulative impacts to the natural

resources of the St. Croix River and its designation as a Wild and Scenic River.

3. Descriptions of the resources in the project area. (Source: River Falls Municipal Utility, 1987, application, exhibit E, unless otherwise indicated).

a. Geology and soils: The project area is characterized by a glaciated surface consisting of a thin layer of silty loess over glacial till. Faulted Precambrian granites, diorites, and gneisses comprise the underlying bedrock. Cambrian sandstones, dolomite, and shale superpose the Precambrian igneous rocks. The soils in the area consist of prairie soils, including black silt loams and silty soils on plains of outwash sand and gravel. Upstream of the city of River Falls, the Kinnickinnic River flows through broad outwash plains bordered by steeply sloped valley walls. The Junction Falls dam is located in a steep narrow rock gorge on the North Branch of the Kinnickinnic River.

b. Streamflow:

low flow: 47 cfs. flow parameter: Flow exceeded 90% of the time.

high flow: 96 cfs. flow parameter: Flow exceeded 10% of the time.

median flow: 58 cfs. Flow exceeded 50% of the time.

These streamflow parameters were determined from the applicant's flow duration curve. The curve was derived from U.S. Geological Survey data taken from 1917 to 1921.

c. Water quality: The quality of the surface and groundwater in the Kinnickinnic River Basin is generally very good. The pollution that does exist in the river comes predominantly from agricultural runoff from the surrounding farmland. The river's sediment load is a concern because of the relatively high annual erosion rate of 5.0 tons of soil per year (Wisconsin Department of Natural Resources, 1980). The eroding top soil washed into the river contributes to seasonally high turbidity levels and decreased water quality. In addition, the city of River Falls' municipal wastewater treatment plant discharges into the Kinnickinnic River in the Powell Falls impoundment (figure 1). However, because of the tertiary water treatment at the plant, no water quality problems have occurred from the plant.

d. Fishery Resources: The Kinnickinnic River in the project area supports an excellent fishery for coolwater and coldwater fish. The fish species present in the project area are typical of those inhabiting the St. Croix River Basin. The species include walleye, sauger, yellow perch, smallmouth bass, channel catfish, bullheads, crappie, bluegill and brown, brook, and rainbow trout.

The Kinnickinnic River upstream and downstream of River Falls provides ideal conditions for the existence and reproduction of trout and other coldwater fish and is classified by the WDNR as Class 1 trout water. Class 1 means that the stream is a high quality trout stream and the trout populations are sustained entirely by natural reproduction. The Class 1 designation does not include the impounded portions of the river in the project area. The south fork of the Kinnickinnic River, which joins the mainstem Kinnickinnic River in the Powell Falls impoundment, is designated as Class II brook and brown trout water. This designation means that some stocking is required to maintain the trout population.

e, f. Vegetation and Wildlife:

Several sections of land along the lower Kinnickinnic River, near it's confluence with the St. Croix River, have been identified by the FWS as potential candidates for federal acquisition because of the area's unique mixture of wildlife habitat (e.g. bluff, prairie, floodplain, forest) and the high diversity of wildlife and plant species associated with the area.

Mammals inhabiting the lower Kinnickinnic Basin include white-tailed deer, raccoon, beaver, muskrat, gray squirrel, striped ground squirrel, red fox, striped skunk, and mink. Avian species include marsh hawk, broad-winged hawk, barn owl, ruffed grouse, ring-necked pheasant, great blue heron, green heron, common loon, Canada goose, wood duck, mallard, blue-winged teal, black tern, belted kingfisher, barn swallow, American gold finch, cerulean warbler, common yellow throat, eastern kingbird, and mourning dove. Canada geese and several species of ducks nest on the wetlands within the project impoundments and on several islands in the river downstream of the project.

The following is a partial list of the dominant plant species found in the project area.

<u>Cover type</u>	<u>Dominant species</u>
grassland	big bluestem, little bluestem, side-oats grama
upland mixed deciduous forest	sugar maple, red oak, basswood, paper birch
forested wetland (adjacent to the river)	willow, cottonwood
emergent wetland	burreed, cord grass, bulrush, reed canary grass, smartweed, cattail

g. Cultural: Properties listed or eligible for listing on the National Register of Historic Places have not been recorded in the project area.

h. Recreation: Recreational use in the area includes fishing, canoeing, hiking, hunting, and picnicking. The Kinnickinnic River has an excellent trout fishery and fishing pressure is heavy. The river below Powell Falls dam is frequently used by canoeists; however, natural river obstacles limit canoe use above Junction Falls impoundment. Recreational facilities in the project area include the Lake George Trails, which are located in the project vicinity, and Glen Park, which is adjacent to the river between Junction Falls and Powell Falls dams. Glen Park offers picnicking, softball, and other day-use facilities. The 1,034-acre Kinnickinnic State Park, located 25 miles below Powell Falls dam at the confluence of the Kinnickinnic and St. Croix Rivers, provides extensive water-based recreation opportunities including fishing, swimming, and boating, as well as areas for hiking, riding, cross-country skiing, and bird-watching.

i. Land use: The project is located in the city of River Falls. Land in the city is used for residential, commercial, and recreational purposes. In the immediate project vicinity, development is limited. Land is used for recreational and agricultural purposes, as well as for supporting a sewage treatment plant and the hydroelectric project.

#### G. ENVIRONMENTAL ISSUES AND PROPOSED RESOLUTIONS

There are three issues addressed below.

1. Mode of Operation and Stream Gauging: The current project operator proposes, and the FWS and the WDNR recommend, that the project be operated in a run-of-river mode.

The existing unlicensed project, including both the Junction Falls and Powell Falls developments, is currently operated in a run-of-river mode such that outflow from each development equals the inflow to each impoundment. By continuing to provide this present mode of operation, the project would continue to maintain the existing flow regime of the river and would minimize fluctuations in the elevation of the reservoirs and discharges downstream of the project. Minimizing the streamflow fluctuations would reduce instances when the streambed would be dewatered and would protect fish habitat and the fish population in the Kinnickinnic River. Therefore, the licensee should continue to operate the project in a run-of-river mode to protect aquatic resources in the river upstream and downstream from the project.

The WDNR, by letter dated February 23, 1988, and by their petition to intervene dated March 28, 1988, recommends that the applicant install three staff gauges to monitor compliance with the run-of-river mode of operation. The WDNR recommends the staff gauges be placed such that WDNR personnel are able to visually verify compliance with the mode of operation. The WDNR recommends that one flow gauge be installed above Junction Falls dam and that it be visible from the Falls Street Bridge; one flow gauge be installed above the Powell Falls dam and that it be visible from the Powell Falls powerhouse; and one flow gauge be installed in the tailwater below Powell Falls dam and that it be visible from the Powell Falls powerhouse.

Installing staff gauges would provide for monitoring of the inflow and outflow from the impoundments, and installing the gauges at the specific sites recommended by the WDNR would provide easy access to the gauges. These measures would facilitate compliance of the recommended mode of project operation. Therefore, the licensee should install the three staff gauges at the specific sites as recommended by the WDNR.

#### 2. Recreational Resources:

The WDNR, by letter dated February 23, 1988, states that the project may adversely affect recreational opportunities currently available on the Kinnickinnic River including recreational navigation, fishing, hunting, and swimming. The WDNR also recommends that signs be installed at the take-out point above Junction Falls dam. These signs would indicate the presence of the dam for safety purposes and would identify the take-out point for canoes. The Interior by letter dated April 5, 1988, recommends the applicant allow public access to project lands and waters, except in those areas of the dams that are hazardous. The WDNR and Interior recommend the applicant provide and maintain canoe portage facilities around each dam.

The applicant agrees with Interior's and WDNR's recommendation to provide and to maintain canoe portage around the dams and to install the signs at the Junction Falls take-out point.

The existing recreational developments in the project vicinity provides for public recreation in the area. Canoeists frequently use the river below Powell Falls dam and there is occasional use of the pool above Junction Falls dam. Canoes cannot negotiate the dams, therefore, the dams disrupt the continuous canoe run between the upstream and downstream reaches of the river. In addition, Powell Falls dam is a safety hazard to canoeists approaching from the upstream side. Canoe portage facilities and warning signs would provide a safe and adequate means for canoeists to utilize the upstream and downstream reaches of the river in a single continuous canoeing experience.

Therefore, the licensee, after consulting with the WDNR and the FWS, should provide and maintain canoe portage around the dams and install signs at the Junction Falls take-out point.

Public access to rivers is decreasing rapidly as residential and commercial development spreads, especially in urban areas. This decline in recreational river access supply comes at a time when participation in river-oriented activities, including fishing and canoeing, is increasing (President's Commission on Americans Outdoors, 1987). The impacts from the loss of public river access is even more severely felt near population centers. Since people are choosing to recreate closer to home, the demand for recreational access is much greater near populated areas. By providing continued free, public access to project lands and waters, the opportunity for participation in river-oriented activities within a short distance of the approximately 10,000 residents of River Falls, Wisconsin and nearby towns is assured. Therefore, the licensee should allow free public access to project lands. An article included in any license issued would require the licensee to allow free public access, to a reasonable extent, to project lands and waters for recreational purposes within safety limitations.

The recommended run-of-river mode of operation, the maintenance of existing flows, the maintenance of public access to project lands, and the addition of the canoe portage facility would preserve and enhance the existing recreational opportunities on the Kinnickinnic River in the project area.

3. Waterfowl collisions with the transmission lines: Two existing distribution transmission lines cross an emergent backwater wetland north of the Powell Falls impoundment. The wetland contains numerous wood duck nest boxes and is used extensively by waterfowl. The FWS states that there is some potential for waterfowl collisions with the transmission lines although the transmission lines are relatively high and waterfowl would most likely fly along the river and under the lines to land in the wetland. The FWS recommends that the applicant monitor the transmission lines to determine the extent of bird collisions and to determine if mitigative measures, such as marking the lines, are necessary to reduce the number of bird collisions (letter from Janet M. Smith, Field Supervisor, U.S. Fish and Wildlife Service, Green Bay, Wisconsin, March 22, 1988).

The applicant states that they have been conducting periodic bird strike inspections and will consult with the FWS and the WDNR to determine if protective measures are needed. The applicant adds that these lines have been in place since 1900 and no bird strike problems are known.

One of the two transmission lines in the vicinity of the project is owned by the city of River Falls and the other is

owned by Northern States Power Company. Although both transmission lines are shown in the application, neither of these lines are in fact, part of the project. Both transmission lines originate from the electrical generating station located immediately downstream of the Junction Falls dam (figure 1) and distribute power throughout the city of River Falls. Since the transmission lines originate from the city's power station, and not from the hydropower project, they are not primary transmission lines and therefore cannot be considered as part of the project [Section 3(11) of the Act]. Although the applicant agrees to voluntarily conduct the studies of the transmission lines, the Commission does not have the authority to require the licensee to conduct studies or to impose mitigative measures to reduce bird strikes.

## H. ENVIRONMENTAL IMPACTS

1. An assessment of impacts expected from the applicant's proposed project (P), with the proposed mitigation and any terms and conditions set by the fish and wildlife agencies; the proposed project with any additional mitigation recommended by the staff (Ps); and any action alternative considered (A). Assessment symbols indicate the following impact levels:

O = None; 1 = Minor; 2 = Moderate; 3 = Major;  
A = Adverse; B = Beneficial; L = Long-term; S = Short-term.

Resource	Impact			Resource	Impact		
	P	Ps	A		P	Ps	A
a. Geology-Soils	0			f. Wildlife	0		
b. Streamflow	0			g. Cultural: Archeological	0		
c. Water quality: Temperature	0			Historical	0		
Dissolved oxygen	0			h. Visual quality	0		
Turbidity and sedimentation	0			i. Recreation	1BL		
d. Fisheries: Anadromous	0			j. Land use	0		
Resident	0			k. Socioeconomics	0		
e. Vegetation	0						

## Remarks:

i. Installing portage facilities and take-out signs would enhance the recreational opportunities in the project area.

## 2. Impacts of the No-Action Alternative.

Under the No-Action Alternative, the project would continue to operate without a license and without any needed requirements for operating the project.

3. Recommended alternative (including proposed, required, and recommended mitigative measures):

Proposed project.  Alternative.  No action.

## 4. Reason for selecting the preferred alternative.

The proposed project would generate electricity using a renewable resource without significantly affecting the existing environmental conditions of the area.

## I. UNAVOIDABLE ADVERSE ENVIRONMENTAL IMPACTS OF THE RECOMMENDED ALTERNATIVE

No unavoidable adverse environmental impacts are expected to occur.

## J. CONCLUSION

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

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

## K. LITERATURE CITED

President's Commission on Americans Outdoors. 1987. Americans Outdoors, the Legacy, the Challenge. Island Press, Washington, D.C.

River Falls Municipal Utility. 1987. Application for license for a minor hydroelectric power project, River Falls Municipal Hydroelectric Facilities (FERC Project No.10489), Wisconsin. October 15, 1987.

Wisconsin Department of Natural Resources. 1980. The St. Croix River Basin Areawide Water Quality Management Plan. Madison, Wisconsin.

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SAFETY AND DESIGN ASSESSMENT  
RIVER FALLS PROJECT  
FERC NO. 10489-000 - WISCONSIN

2

DAM SAFETY

On June 23, 1988, the Commission's Chicago Regional Director classified the existing Junction Falls dam and the existing Powell Falls dam as having a low hazard potential. The classification was based on a field inspection and other information available to the Regional Office staff. Powell Falls dam is located about one-half mile downstream of the Junction Falls dam. The dams were originally constructed in the mid-1800's.

The Junction Falls dam was reconstructed in 1920. The dam is a 32-foot-high concrete gravity structure with an uncontrolled ogee shaped spillway spanning 115 feet of the dam's 140-foot-length. The entire dam is founded on bedrock. The freeboard between the normal pool and the top of the dam is 7 feet. The gross storage capacity of the reservoir at normal pool elevation is 142.7 acre-feet. The field inspection showed that a sewage treatment plant along the right bank downstream would not be affected by the dam failure because of its higher elevation. A small park along the left bank is rarely used by the public, is not well maintained, and has been flooded occasionally. There is no overnight camping at the park.

The Powell Falls dam was replaced in 1966. It is a 16.5-foot-high and 110-foot-long concrete gravity structure with its entire length acting as a spillway. It impounds 37 acre-feet. The field observation revealed that because of steep slopes and limited access, there is lack of development downstream.

The probable maximum flood for the Junction Falls dam was estimated at 86,400 cubic feet per second (cfs) and for the Powell Falls dam at 91,800 cfs.

The dams are classified low hazard because any failure of the dams would not significantly increase the hazard downstream and thereby would not cause loss of life or result in extensive property damage.

The rehabilitation proposed at the project would involve rectifying the deteriorated concrete surface of the spillway and improving the stability of the Junction Falls dam. The spillway crest would be reshaped for better flow conditions. The applicant intends to improve the stability of the dam to withstand an inflow design flood, less than the probable maximum flood, in accordance with our standards of factors of safety for all credible loading

conditions. This would be accomplished by post-tensioning the dam into the foundation bedrock.

The rock anchors would be installed by drilling holes through the crest of the spillway into the underlying sandy dolomitic foundation. Rock anchors would be installed in these holes, grouted and then post-tensioned. Each rock anchor would be proof-tested. Solid threaded-bar anchors with the required design force at 60 percent of the ultimate strength would be spaced appropriately for each monolith. The required bond length, in conjunction with a free stressing length, would constitute the total length of each anchor.

The Powell Falls dam is in sound condition and, except for minor repairs, would not be rehabilitated by the applicant.

PROJECT DESIGN

The constructed project consists of two developments: the Junctions Falls Development and the Powell Falls Development. The latter development is located about one-half mile downstream.

The Junction Falls Development consists of a dam with headworks at the right end. One of the slide gates at the headworks controls flow via a 6-foot-diameter concrete-encased steel penstock to a powerplant located 200 feet downstream. The powerplant contains a single vertical Francis turbine-generator unit rated at 250 kilowatts (kW).

The Powell Falls Development consists of a dam with an integral powerhouse at the left end. The intake is controlled by gates. The powerplant contains a single vertical Francis turbine-generator unit rated at 125 kW.

WATER RESOURCES PLANNING

Both the developments operate run-of-river. The single-unit powerplant at Junction Falls operates at a design hydraulic capacity of 80 cfs and an average head of 44 feet. The single-unit powerplant at Powell Falls operates at a design hydraulic capacity of 82 cfs and an average head of 20 feet. The combined average annual generation of the powerplants is 2,000,000 kilowatthours (kWh).

The drainage area at the Junction Falls site is 100 square miles and at the downstream Powell Falls site it is 120 square miles. The drainage area for the Powell Falls site includes the additional area of the South Fork of the Kinnickinnic River. Both sites are located on the Kinnickinnic River. The flow data is based upon the 1916-1921 record from a USGS gaging station located about 5 miles downstream of the project site. This is the only flow data available in the vicinity of the project site and

was used to develop the flow-duration curve. A streamflow of 80 cfs, which is the hydraulic capacity of the powerplant at Junction Falls, is equalled or exceeded 7 percent of the time on the flow-duration curve. For Powell Falls, the streamflow of 82 cfs represents a 12 percent exceedence on the flow-duration curve. No minimum flows are required. The project site is adequately developed.

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

#### CONSERVATION PLANNING

The applicant is engaged in a number of conservation and energy consumption efficiency programs.

The following programs include:

- a) replacing all street lighting mercury vapor fixtures with high pressure sodium units, resulting in about 40 percent energy savings on street lighting.
- b) working with the Wisconsin Public Service Commission to establish time-of-day rates to encourage use of cheaper energy during off-peak hours.
- c) supporting their wholesale power supplier, Wisconsin Public Power, Inc., in working with the Wisconsin Public Service Commission in development of a customer rebate program for energy efficient appliances, which is expected to go into operation in 1989.
- d) disseminating information to customers on energy conservation and assisting commercial customers for energy conservation loans and grants.
- e) complying with various energy efficiency mandates promulgated from various state of Wisconsin agencies.

On the basis of these activities, the staff concludes that the applicant is making a good-faith effort to improve and maintain a reasonably high level of energy consumption efficiency.

#### EXHIBITS

The following portions of exhibit A and the following exhibit F drawings conform to the Commission's rules and regulations and they are included in the license.

EXHIBIT A: Table A-1 entitled "Technical Data."

<u>Exhibit F Drawing</u>	<u>FERC No. 10489</u>	<u>Description</u>
F-1	1	Junction Falls dam-existing conditions-site plans & downstream elevation
F-2	2	Junction Falls dam-existing conditions-dam sections & elevation
F-3	3	Junction Falls dam-existing conditions-powerhouse plan & sections
F-4	4	Junction Falls dam-proposed dam rehabilitation-plan, elevation & section
F-5	5	Junction Falls dam-proposed dam rehabilitation-sections
F-6	6	Powell Falls dam-plan, elevation & sections
F-7	7	Powell Falls dam-powerhouse plan & sections

FEDERAL POWER COMMISSION

TERMS AND CONDITIONS OF LICENSE FOR CONSTRUCTED  
MINOR PROJECT AFFECTING THE INTERESTS OF  
INTERSTATE OR FOREIGN COMMERCE

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

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

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

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

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

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

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

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

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

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

Article 10. On the application of any person, association, corporation, Federal agency, State or municipality, the Licensee shall permit such reasonable use of its reservoir or other project properties, including works, lands and water rights, or parts thereof, as may be ordered by the Commission, after notice and opportunity for hearing, in the interests of comprehensive development of the waterway or waterways involved and the conservation and utilization of the water resources of the region for water supply or for the purposes of steam-electric, irrigation, industrial, municipal or similar uses. The Licensee shall receive reasonable compensation for use of its reservoir or other project properties or parts thereof for such purposes, to include at least full reimbursement for any damages or expenses which the joint use causes the Licensee to incur. Any such compensation shall be fixed by the Commission either by approval of an agreement between the Licensee and

the party or parties benefiting or after notice and opportunity for hearing. Applications shall contain information in sufficient detail to afford a full understanding of the proposed use, including satisfactory evidence that the applicant possesses necessary water rights pursuant to applicable State law, or a showing of cause why such evidence cannot concurrently be submitted, and a statement as to the relationship of the proposed use to any State or municipal plans or orders which may have been adopted with respect to the use of such waters.

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

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

Article 13. So far as is consistent with proper operation of the project, the Licensee shall allow the public free access, to a reasonable extent, to project waters and adjacent project lands owned by the Licensee for the purpose of full public utilization of

such lands and waters for navigation and for outdoor recreational purposes, including fishing and hunting: Provided, That the Licensee may reserve from public access such portions of the project waters, adjacent lands, and project facilities as may be necessary for the protection of life, health, and property.

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

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

Article 16. If the Licensee shall cause or suffer essential project property to be removed or destroyed or to become unfit for use, without adequate replacement, or shall abandon or discontinue good faith operation of the project or refuse or neglect to comply with the terms of the license and the lawful orders of the Commission mailed to the record address of the Licensee or its agent, the Commission will deem it to be the intent of the Licensee to surrender the license. The Commission, after notice and opportunity for hearing, may require the Licensee to remove any or all structures, equipment and power lines within the project boundary and to take any such other action necessary to restore the project waters, lands, and facilities remaining

within the project boundary to a condition satisfactory to the United States agency having jurisdiction over its lands or the Commission's authorized representative, as appropriate, or to provide for the continued operation and maintenance of nonpower facilities and fulfill such other obligations under the license as the Commission may prescribe. In addition, the Commission in its discretion, after notice and opportunity for hearing, may also agree to the surrender of the license when the Commission, for the reasons recited herein, deems it to be the intent of the Licensee to surrender the license.

Article 17. The right of the Licensee and of its successors and assigns to use or occupy waters over which the United States has jurisdiction, or lands of the United States under the license, for the purpose of maintaining the project works or otherwise, shall absolutely cease at the end of the license period, unless the Licensee has obtained a new license pursuant to the then existing laws and regulations, or an annual license under the terms and conditions of this license.

Article 18. The terms and conditions expressly set forth in the license shall not be construed as impairing any terms and conditions of the Federal Power Act which are not expressly set forth herein.