

RIVER FALLS HYDROELECTRIC PROJECT

FIRST STAGE CONSULTATION COMMENTS AND STUDY REQUESTS

PROJECT NO. P-10489
RIVER FALLS, WISCONSIN
MAY 23, 2014

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KIAP-TU-WISH CHAPTER TROUT UNLIMITED

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

05/11/2014

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

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

Dear Mr. French:

The Kiap-TU-Wish Chapter of Trout Unlimited (Kiap-TU-Wish Chapter) has reviewed the City of River Falls Pre Application Document (PAD) for the River Falls Hydroelectric Project in Pierce County, Wisconsin (FERC Project P-10489), filed November 27, 2013. Via this letter I am providing our Chapter's comments on the PAD and information provided by the City, along with recommendations for a study necessary for informed decisions about relicensing consistent with 18 CFR 4.38(b)(5). Our Board of Directors authorized the comments and study recommendation on 10 May 2014.

The Kiap-TU-Wish Chapter's mission is to conserve, protect and restore cold-water ecosystems and fisheries in Western Wisconsin. The Kinnickinnic River is one of the finest trout streams in Wisconsin and is nationally renowned. The Kiap-TU-Wish Chapter has a goal of maintaining a healthy cold-water ecosystem that supports naturally reproducing brown and brook trout populations in the Kinnickinnic River.

The community's awareness, appreciation and concern for the river have increased dramatically since the hydropower project was last licensed in 1988. After reviewing the PAD our Chapter is concerned that the City may be out of step with the community's appreciation of the value of the river and concern over its future.

A cold-water thermal regime is essential for a healthy cold-water ecosystem. The PAD incorrectly states, "The Kinnickinnic River is considered a Cool (Warm Transition) Mainstem under the state's Natural Community Determinations". The Wisconsin Department of Natural Resources has designated the Kinnickinnic River as Cool Cold Mainstem. The PAD incorrectly states that the Kinnickinnic River is classified as Outstanding Resource Water (ORW) only above State Highway 35 while in fact it is ORW for most of its length, except the lower ½ mile near its confluence with the St. Croix River and the 0.7 miles of impoundments in River Falls. The entire Kinnickinnic River has a fishery classification of Class I, and is managed as such. Many years of monitoring by the Kiap-TU-Wish Chapter have documented that the project impoundments within the City warm the water and degrade the thermal regime of the lower Kinnickinnic River.



An unregulated hydrologic regime is essential for a healthy cold-water river ecosystem. The current project license has a condition for run of river operation but the City has not always met that standard of operation as evidenced by direct observations and by the hydrologic record. As stated in Section 2.4 of the PAD, the project license was amended in 1997 after angler complaints of dramatic drops in flows were reported. While this situation improved after the FERC-ordered amendment, USGS gage data continues to show periodic marked drops in flow.

The Kiap-TU-Wish Chapter is concerned about the recreational value of the impounded portion of the river. While the free-flowing river above and below town receives a great deal of recreational angling and boating pressure, these activities in the impounded 0.7 miles of river within the City are nearly nonexistent. The impoundments are nearly filled with sediment, with poor water quality and degraded aquatic habitat due to increased water temperatures and excessive growth of algae and aquatic plants.

We are concerned that the PAD proposes no new studies to measure the environmental impacts of the project or to examine alternatives for future condition of the river within the City. We are concerned that the PAD has identified no proposed measures and plans to protect, mitigate, or enhance environmental resources (PM&E Measures). A thorough and comprehensive study to assess the water resource impacts of the hydropower project on the Kinnickinnic River is needed.

Again, the Kiap-TU-Wish Chapter's goal is to maintain a healthy cold-water ecosystem that supports naturally reproducing brown and brook trout populations in the Kinnickinnic River. Our objective in proposing this study is to provide quantitative information that will inform the community about the effects of the hydropower project on the river and on alternatives for its future condition. This will be invaluable to the community in making informed decisions on relicensing the hydropower facility and for the future condition of the river within the City. The study will also help identify measures and plans to protect, mitigate, or enhance environmental resources (PM&E Measures). The Kiap-TU-Wish Chapter has relied on our members with many decades of experience as water resources professionals to recommend a study that addresses:

- Temperature Impacts
- Hydrologic Impacts
- Water and Sediment Quality Impacts
- Biological Impacts
- Implications for Stormwater Management

Our recommended study addresses these five components with attention to the impacts of the River Falls Hydroelectric Project, available information, and the most effective means for gaining needed information for informed decision-making. The recommended study includes specific methodologies and standard practices used in decision-making for high-value water resources.



The Kinnickinnic River is treasured by the community and worthy of a study to help ensure its continued health for future residents of the City. Thank you for your consideration of this important issue.

Sincerely,

Tom Henderson, President
Kiap TU Wish Chapter of Trout Unlimited

Cc: Kimberly Bose, Secretary, Federal Energy Regulatory Commission



KIAP-TU-WISH CHAPTER TROUT UNLIMITED
Conserving, protecting, and restoring cold water fisheries and their watersheds in Polk, Pierce, and St. Croix Counties, Wisconsin.

**A Study to Assess the Water Resource Impacts of
City of River Falls (WI) Hydropower Facilities on the
Kinnickinnic River**

Kiap-TU-Wish Chapter of Trout Unlimited

May 8, 2014

A study determined by the Kiap-TU-Wish Chapter of Trout Unlimited as necessary to be performed by the City of River Falls for the River Falls Hydroelectric Project in Pierce County, Wisconsin (FERC Project P-10489), consistent with 18 CFR 4.38(b)(5).

A Study to Assess the Water Resource Impacts of City of River Falls (WI) Hydropower Facilities on the Kinnickinnic River

Study Component I. Temperature Impacts

Background Information:

The Kiap-TU-Wish Chapter of Trout Unlimited (Kiap-TU-Wish) has a goal of maintaining the healthy cold-water ecosystem that supports naturally-reproducing brown and brook trout populations in the Kinnickinnic River. Kiap-TU-Wish has been conducting temperature monitoring of the Kinnickinnic River since 1992. One of the primary objectives of this monitoring work is to evaluate the thermal impacts of the City of River Falls hydropower facilities on the Kinnickinnic River.

Kiap-TU-Wish temperature monitoring is conducted at five Kinnickinnic River sites (two upstream and three downstream of the City of River Falls hydropower facilities) and at two sites on Kinnickinnic River tributaries (South Fork of the Kinnickinnic River and Rocky Branch Creek) (Figure 1). Monitoring is generally conducted during the mid-April to mid-October period each year; although monitoring has been conducted during four winters as well (1995, 1998, 2003, 2006). Monitoring is conducted via the use of electronic instrumentation that continuously measures river temperatures at 10-minute intervals, generating approximately 22,000 temperature measurements/monitoring site/year.

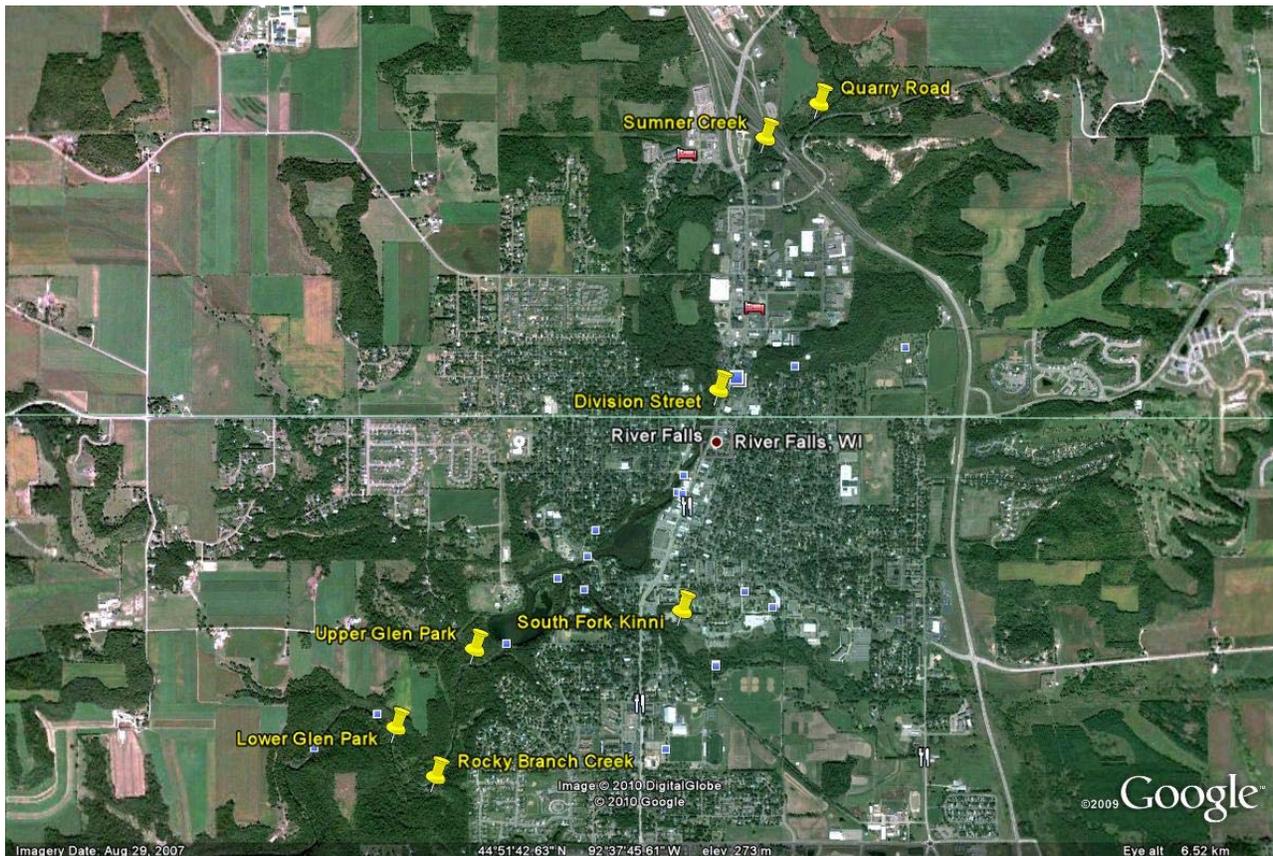


Figure 1. Kiap-TU-Wish temperature monitoring sites on the Kinnickinnic River and tributaries in River Falls, WI.

Evidence of Temperature Impacts:

- The two City of River Falls hydropower impoundments (Lakes George and Louise) have transformed a 0.7-mile reach of the Kinnickinnic River from a coldwater to a warm water ecosystem. Lakes George and Louise are classified by WDNR as a warm water sport fishery (WWSF), while the remainder of the Kinnickinnic River is classified as a COLD Class I trout fishery (WDNR, et al., 1999).
- The two City of River Falls hydropower impoundments (Lakes George and Louise) have a significant warming influence on the downstream Kinnickinnic River in the summer, and a cooling influence in the winter.
- The Nonpoint Source Control Plan for the Kinnickinnic River Priority Watershed Project (Kinni NPS Plan) (WDNR et al., 1999) notes (p. 94): “The downstream reach (below Lake Louise and Powell Dam)...has elevated water temperatures...caused by the two upstream impoundments and stormwater runoff”. “The impoundments have an overall constant warming effect of about 3° C (5° F) on downstream water temperatures during base flow (Schreiber, 1998).”
- The Kinni NPS Plan (WDNR et al., 1999) notes about Lake George (p. 94): “Warming in the shallow areas tends to cause a general increase in downstream water temperatures”.
- On average (1993-2013), the downstream Kinnickinnic River summer (June-August) temperature is 4.2° F higher than the upstream temperature (59.7° F upstream vs. 63.9° F downstream) (Kiap-TU-Wish, unpublished data).
- On average (1993-2013), the downstream Kinnickinnic River July temperature is 4.7° F higher than the upstream temperature (61.0° F upstream vs. 65.7° F downstream) (Kiap-TU-Wish, unpublished data).
- A climate vulnerability analysis of Kiap-TU-Wish data (1992-2009) by WDNR (Mitro, et al., 2011) noted that a warming trend is occurring at both upstream and downstream Kinnickinnic River sites. However, the warming trend is greater at downstream sites and begins at a much higher baseline temperature, indicating that the downstream Kinnickinnic River may be much more sensitive to future climate change impacts.
- Future climate change impacts (Mitro, et al., 2011) must be a critical consideration for evaluating future hydropower-related temperature impacts on the currently-impounded and downstream reaches of the Kinnickinnic River. With higher system-wide temperatures due to climate change, thermal impacts due to the hydropower impoundments will further exacerbate downstream warming, possibly creating future temperature regimes that are unsuitable for a coldwater ecosystem.

Recommended Study Elements to Evaluate Temperature Impacts:

- Ia.** Conduct a rigorous assessment of the Kiap-TU-Wish temperature monitoring dataset (1992-2013), using multiple statistical metrics, making comparisons to critical thermal thresholds for trout and invertebrates, assessing cumulative heat exposure, conducting a regression analysis of temperature trends, and evaluating susceptibility to air temperature and climate change.
- Ib.** Conduct year-round temperature monitoring of Lakes George and Louise (1-2 years), to better understand in-lake temperature dynamics. In addition to lateral and longitudinal characterization of temperature, vertical profiling work should be conducted to determine the extent of seasonal thermal stratification in the two hydropower impoundments.

- Ic.** Conduct additional winter temperature monitoring at upstream and downstream Kinnickinnic River sites, to better understand the winter temperature impacts of Lakes George and Louise.
- Id.** Conduct thermal modeling of the Kinnickinnic River, to determine the extent to which dam removal would improve the temperature regime (lower the baseline temperature) in the currently-impounded and downstream river reaches, how far down river this temperature improvement would extend, and the amount of “thermal buffering capacity” created for protection against future climate change. With a lower downstream baseline temperature, the Kinnickinnic River could better utilize the significant groundwater inputs to the lower five miles of the river (river flow approximately doubles from Main Street in River Falls to County Road F near the river mouth). Conversely, the thermal model could also be used to evaluate the temperature impacts of the hydropower impoundments (or absence thereof) under several future climate change scenarios, as outlined by WDNR (Mitro, et al., 2011). With enhancements, the existing U.S. Army Corps of Engineers (USACE) thermal model created for the Lake George Stormwater Treatment Concept Plan (City of River Falls, 2005) could be used for this effort.

Study Component II. Hydrologic Impacts

Background Information:

The U.S. Geological Survey (USGS) has been conducting flow monitoring of the Kinnickinnic River since 1998 (http://waterdata.usgs.gov/wi/nwis/uv/?site_no=05342000&PARAMeter_cd=00065,00060). A one-year record of flow data exists for the 1999 water year (October 1998-September 1999), while a continuous record of flow data exists from July 2002 to present.

The USGS monitoring station is located on the lower Kinnickinnic River near County Road F, approximately 5 miles west of River Falls. The station continuously measures river stage (water height) and flow at 15-minute intervals year-round, generating approximately 35,000 stage and flow measurements per year.

Evidence of Hydrologic Impacts:

- The Kinni NPS Plan (WDNR et al., 1999) notes (p. 93-94): “The condition of the Kinnickinnic River downstream from the City of River Falls is worse than the condition upstream. Increased temperatures from the two lakes and flow fluctuations caused by dam management procedures contribute to adverse impacts on the Kinnickinnic River ecosystem”.
- The Kinni NPS Plan notes (WDNR et al., 1999) (p. 94): “The downstream reach (below Lake Louise and Powell Dam)...is impacted...by flashy stream flows caused by urban runoff and hydropower manipulations”.
- The Kinni NPS Plan notes (WDNR et al., 1999) (p. 8): “The impoundments were also shown to have significant impacts on stream flow during trash rack cleaning operations”.
- On a number of occasions, recreational users along the lower Kinnickinnic River (downstream from River Falls) have noted sudden flow fluctuations that are likely attributed to irregular operation of the City of River Falls hydropower facilities. For instance, a Kiap-TU-Wish Chapter member observed a dramatic decrease in Kinnickinnic River flow (from 126 cfs to 53 cfs) on July 11, 2008, during the 15:00-18:45 CDT time period, as measured at the USGS monitoring station

(Figure 2). The Wisconsin Department of Natural Resources (Marty Engel, personal communication) subsequently linked this flow irregularity to a gate malfunction at the lower (Powell Falls Dam) hydropower facility.

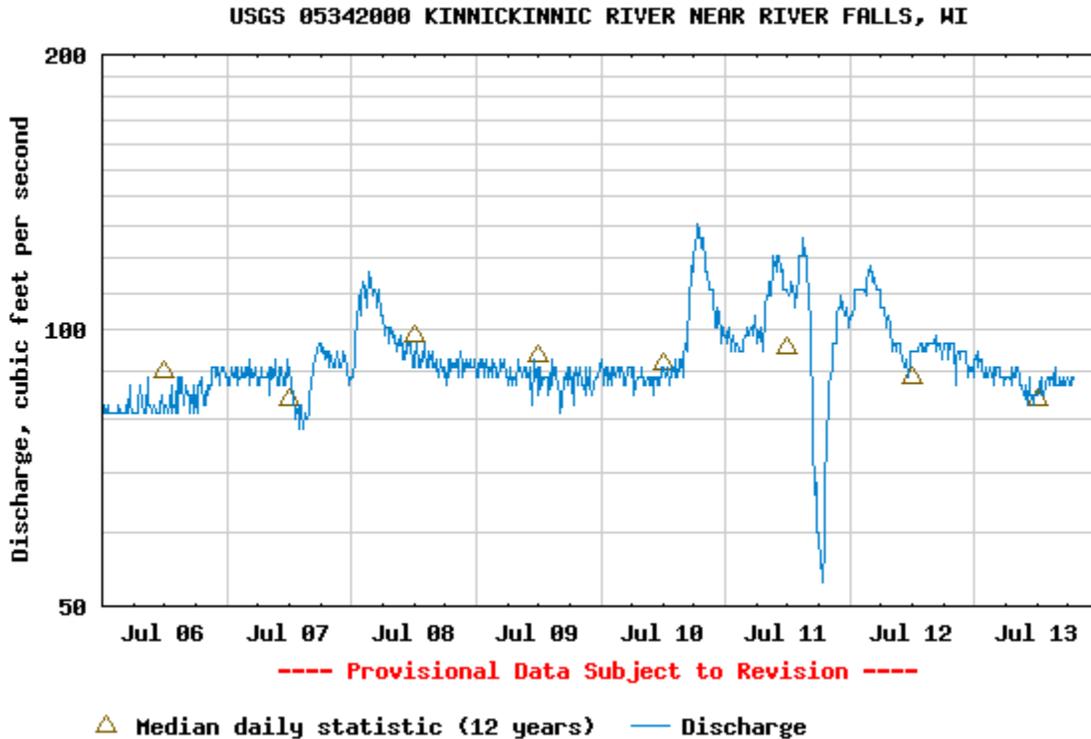


Figure 2. Hydropower-related Kinnickinnic River flow irregularity on July 11, 2008.

Maintaining a “run-of-river” condition downstream from the City of River Falls hydropower facilities is critical for protecting the Kinnickinnic River habitats that support healthy coldwater macroinvertebrate and brown trout communities. Sudden decreases in water flow can de-water macroinvertebrate habitats and trout redds, while sudden increases in water flow can de-stabilize the river channel, thereby increasing bank erosion, decreasing water clarity, and damaging in-stream habitat. The Federal Energy Regulatory Commission (FERC) permit for the City of River Falls hydropower facilities requires that a downstream “run-of-river” condition be maintained at all times.

Recommended Study Elements to Evaluate Hydrologic Impacts:

- IIa.** Using the 15-minute USGS Kinnickinnic River flow data, conduct a thorough assessment of the extent to which the City of River Falls hydropower facilities have maintained a “run-of-river” condition during the 1998-1999 and 2002-2013 periods. Examine the Kinnickinnic River hydrograph during periods of stable river flow (base flow), when precipitation and runoff are not occurring, to determine the frequency, magnitude, and duration of flow and stage irregularities.
- IIb.** Assemble and review observational reports of flow irregularities by recreational users, the public, and other sources. These reports may have been received by the City of River Falls, WDNR, and/or FERC.

- IIc.** Obtain and review any pertinent records maintained by the City of River Falls hydropower utility, to determine if the operation and/or maintenance of the hydropower facilities has resulted in abnormal (non “run-of river”) flow conditions.

Study Component III. Water and Sediment Quality Impacts

Background Information:

Very minimal water quality monitoring of the Kinnickinnic River and Lakes George and Louise has been conducted. WDNR (Schreiber, 1998) evaluated baseline water resource conditions in the Kinnickinnic River Watershed in 1996-1997, to inform the development of the Kinni NPS Plan (WDNR et al., 1999). However, the extent of water quality monitoring was minimal, and no recent assessment of water quality has been conducted by WDNR or other agencies.

Similarly, very limited monitoring of sediment quality has been conducted in Lakes George and Louise. The City of River Falls collected a limited number of sediment core samples from Lake George in 1989-1990, with analysis of trace metals, organic compounds, and total Kjeldahl and ammonia nitrogen (City of River Falls, unpublished data).

Evidence of Water and Sediment Quality Impacts:

- The Kinni NPS Plan (WDNR et al., 1999) notes (p. 94): “Lake George is a shallow, eutrophic 18-acre impoundment that...is nearly filled with sediment and experiences summer algae blooms and turbidity”.
- The Kinni NPS Plan (WDNR et al., 1999) notes (p. 94): “Lake Louise is a shallow, eutrophic 15-acre impoundment that...is nearly filled with sediment and experiences summer algae blooms and turbidity”.

The two hydropower impoundments (Lakes George and Louise) have extended water residence times, creating in-lake water and sediment quality problems. In the presence of ample sunlight, favorably warm water temperatures, and adequate nutrient sources, summer algae blooms occur, creating unsightly (green) conditions, reduced water clarity, odors, possible human health impacts, and reduced oxygen concentrations. The extended water residence time also allows suspended sediment (silt) from upstream sources (both urban and agricultural) to accumulate in the lakes. In addition to in-filling the lakes, the suspended sediment carries contaminants (phosphorus, trace metals, and organic compounds (PAHs and pesticides)) that are deposited in the lake bottom, with possible impacts on benthic invertebrates and fish. Large numbers of Canada geese and ducks congregate on Lakes George and Louise in the fall and winter, resulting in phosphorus, nitrogen, and bacterial loading to the lakes. Biological, chemical, and physical processes can transfer sediment contaminants to the overlying water column in the lakes, thereby causing in-lake and downstream water quality problems. For instance, increased water flows through the impoundments during storm runoff events can re-suspend the fine silt and contaminants from the lake bottom, with impacts on in-lake and downstream water quality. Water and sediment contaminants can also be transferred to biota through bioaccumulation and biomagnification processes, with implications for aquatic and human health (typically via fish consumption). Experience has shown

that remediation of sediment contamination is often difficult, costly, time consuming, and disruptive to the local environment and community (Parkerton and Maruya, 2013).

Recommended Study Elements to Evaluate Water and Sediment Quality Impacts:

- IIIa.** Conduct seasonal (April-October) water quality monitoring of Lakes George and Louise and at upstream and downstream Kinnickinnic River locations (1-2 years), to better assess in-lake water quality problems and possible downstream water quality impacts. Water quality monitoring should be conducted during both baseflow and storm runoff conditions, to fully characterize in-lake and downstream impacts. Monitoring will also help determine whether applicable state water quality standards are being met (example: phosphorus standard of 75 ug/l, per WI Chapter NR 102). Monitoring of multiple water quality variables is recommended: dissolved oxygen, turbidity, suspended solids, nutrients (various forms of phosphorus and nitrogen), trace metals, bacteria, and chlorophyll (estimate of algal presence). In addition to longitudinal water quality characterization at upstream, in-lake, and downstream locations, in-lake vertical profiling work and/or continuous monitoring of dissolved oxygen, pH, and conductivity should be conducted, to determine the extent of stratification and dynamic changes (daily, weekly, monthly) that occur in the two hydropower impoundments. With possible decreased in-lake dissolved oxygen concentrations due to eutrophication and increased sediment oxygen demand, an upstream-downstream comparison of diel oxygen fluctuations should also be conducted via continuous monitoring.
- IIIb.** Determine the extent to which Lakes George and Louise have been filled by the historical deposition of sediment. Conduct a bathymetric survey of Lakes George and Louise, and prepare a digital model of current sediment surface elevations in both lakes. Conduct a sediment probe survey to determine depth to bedrock in Lakes George and Louise, and prepare a digital model of bedrock elevations for both lakes. Using the digital models, map the sediment depths and calculate sediment volumes in both lakes. To determine the rate of sediment in-filling in Lakes George and Louise, a select number of deep sediment cores from both lakes should be dated (^{14}C , ^{137}Cs , ^{210}Pb , loss on ignition, magnetic susceptibility, and pollen analysis). The amount of sediment in-filling and the extent of sediment contamination (see study elements IIIc-IIIe below) would have significant implications in the event that future dredging of the two impoundments would be necessary to maintain or improve capacity for hydropower generation. In addition to a need for proper disposal and/or re-use of the dredged material, any dredging operation could cause in-lake and downstream water quality impacts. Information on the amount of sediment in-filling and contamination in the two hydropower impoundments would also be critical to inform site restoration and/or remediation in the event of future dam removal.
- IIIc.** Evaluate the existing Lake George sediment core data (1989-1990), to determine implications for in-lake biological impacts and possible future disposal and/or re-use of dredged material.
- IIId.** Collect deep sediment core samples and associated sediment pore water samples from Lakes George and Louise, to fully assess the levels and extent of sediment contaminants (sediment oxygen demand, total phosphorus, ammonia nitrogen, trace metals (As, Cd, Cr, Cu, Hg, Ni, Pb, Zn), and organic compounds (PAHs, PCBs, and pesticides)) (U.S. EPA and U.S. ACE, 1998; Balogh, et al., 2009; MCES, 2006). Ancillary analyses (physical sediment appearance, particle size distribution, percent moisture, total volatile solids, acid volatile sulfide, and total organic carbon) should also be conducted on the sediment core samples. Contaminant levels in bed sediment and sediment pore water can be compared to Level I and Level II Sediment Quality Targets (SQTs) (Crane and MacDonald, 2003) and state water quality standards, respectively, to evaluate the

likelihood of biological impacts. Information on sediment contaminant levels would also be critical in the event that future dredging of the two hydropower impoundments would create a need for disposal and/or re-use of the dredged material. A limited number of sediment core samples were previously collected from Lake George in 1989-1990 (as noted above). However, no sediment samples have been previously collected from Lake Louise. Due to the probable rapid rate of sediment deposition in both lakes, a comprehensive analysis of sediment quality in both lakes is highly recommended, to better reflect both historical and current conditions.

IIIe. Conduct in-laboratory sediment and pore water toxicity tests to directly determine the impacts of sediment contaminants on representative invertebrate species (*Hyalella azteca*, *Chironomus tentans*, and *Ceriodaphnia dubia*) (U.S. EPA, 1994; Winger and Lasier, 1998; MCES, 2006).

Study Component IV. Biological Impacts

Background Information:

Regular WDNR fisheries surveys (1996, 2004-2013) have been conducted at Kinnickinnic River locations upstream and downstream from the two City of River Falls hydropower impoundments. However, no WDNR fisheries surveys have been conducted in Lakes George and Louise (Marty Engel, WDNR, personal communication).

Occasional macroinvertebrate surveys have been conducted by the WDNR (1995-1998), University of Wisconsin-River Falls (1997, 1999, 2001), and the City of River Falls (2004-2012), at Kinnickinnic River locations upstream and downstream from the two City of River Falls hydropower impoundments (Garry, 2006). However, no known macroinvertebrate surveys have been conducted in Lakes George and Louise.

Evidence of Biological Impacts:

- The Kinni NPS Plan (WDNR et al., 1999) notes (p. 36): “The entire main stem of the Kinnickinnic River is classified as a COLD Class I trout fishery. The two impoundments in the City of River Falls, Lake Louise and Lake George, support a warm water sport fishery (WWSF)”.
- The Kinni NPS Plan (WDNR et al., 1999) notes (p. 94): “Lake George....has a limited warmwater and coldwater sport fishery consisting of largemouth bass, panfish, and brown trout”.
- The Kinni NPS Plan (WDNR et al., 1999) notes (p. 94): “Lake Louise.... has a limited warmwater and coldwater sport fishery consisting of largemouth bass, panfish, and brown trout. The lake also supports a significant carp population”.
- The temperature, hydrologic, and water quality conditions created by the two City of River Falls hydropower impoundments have significantly impacted a 0.7-mile reach of a coldwater resource, as evidenced by the classification of Lakes George and Louise by WDNR as warmwater sport fisheries.

Recommended Study Elements to Evaluate Biological Impacts:

- IVa.** Conduct a comparative assessment of available Kinnickinnic River fisheries and macro-invertebrate survey results from locations upstream and downstream of the two City of River Falls hydropower impoundments, to determine if downstream biological impacts are evident, especially via alterations in aquatic community composition and abundance. Multiple biotic metrics and indices can be used to make this comparison. Conduct additional upstream and downstream Kinnickinnic River macroinvertebrate survey work, if existing data are insufficient and/or do not reflect current conditions.
- IVb.** Conduct fisheries and macroinvertebrate surveys of Lakes George and Louise, to characterize current biological conditions and assess the in-lake biological impacts of these two hydropower impoundments, especially via alterations in aquatic community composition and abundance.
- IVc.** Assess possible impacts of the two City of River Falls hydropower impoundments related to contaminant bioaccumulation and biomagnification, with implications for aquatic and human health. Determine contaminant levels in macroinvertebrate and fish samples obtained from Lakes George and Louise, and from upstream and downstream Kinnickinnic River locations. Contaminant levels (trace metals, PAHs, PCBs, and pesticides) in representative samples from these two biotic groups can be compared to thresholds for biological impact and human health (via fish consumption) (Blanchard, et al., 1993; Steingraeber and Wiener, 1995; Simpson and Lusk, 1999).
- IVd.** Conduct Kinnickinnic River surveys of aquatic vegetation (periphyton and macrophytes) at locations upstream and downstream of the two City of River Falls hydropower impoundments, to evaluate the extent to which increased downstream temperatures, nutrient availability, and primary productivity have enhanced nuisance growths of aquatic vegetation, potentially impacting habitat quality for trout and macroinvertebrates (BC Ministry of Environment, Lands, and Parks, 2001; DeNicola, 1996).
- IVe.** With dam removal, evaluate the potential for significant restoration of a coldwater ecosystem in the 0.7-mile Kinnickinnic River reach currently impacted by the two hydropower impoundments.
- IVf.** Through survey work, determine the extent to which Lakes George and Louise may be harboring NR40-listed aquatic invasive species. This information is needed to evaluate any risks posed for other portions of the Kinnickinnic River and to develop appropriate management strategies.

Study Component V. Implications for Storm Water Management

Background Information:

As noted in **Study Component I. Temperature**, above, Kiap-TU-Wish has been conducting temperature monitoring of the Kinnickinnic River since 1992. In addition to evaluating the thermal impacts of the City of River Falls hydropower facilities, this monitoring work is evaluating the thermal impacts of City of River Falls storm water runoff on the Kinnickinnic River.

Since 2004, the City of River Falls has been conducting monitoring of the Kinnickinnic River, Sumner Creek, and the on-site storm water best management practices (BMPs) at the Sterling Ponds subdivision. The goal of the City of River Falls North Kinnickinnic River Monitoring Project is to evaluate the

effectiveness of the city's Storm Water Management Ordinance for preventing degradation of the Kinnickinnic River due to new city development.

Evidence of Storm Water Impacts:

- Untreated storm water from the City of River Falls is currently discharged directly to the Kinnickinnic River via 25 storm water outfalls along the river reach from County Road MM to Upper Glen Park. Twenty-four of these storm water outfalls discharge directly to Lake George or the 1.1-mile Kinnickinnic River reach immediately upstream. The Bartosh Canyon storm water outfall discharges to the Kinnickinnic River, just downstream from the Powell Falls Dam and Lake Louise.
- Untreated storm water from the City of River Falls is currently discharged to the South Fork of the Kinnickinnic River and conveyed to the Kinnickinnic River, just downstream from the Junction Falls Dam.
- Untreated storm water is a significant issue for the Kinnickinnic River, delivering excess inputs of water and pollutants (thermal, suspended sediment, nutrients, trace metals, and organic compounds), which can impact the river's flow regime, water quality, and aquatic biota.
- Kiap-TU-Wish temperature monitoring results show evidence of warm storm water inputs to the Kinnickinnic River during most summer rain events, from Division Street to Upper Glen Park, and in the South Fork of the Kinnickinnic River (Kiap-TU-Wish, unpublished data).
- The Bartosh Canyon storm water outfall (below Lake Louise) is contributing thermal pollution to a downstream Kinnickinnic River reach that is already thermally impacted by the two City of River Falls hydropower impoundments. With a higher baseline temperature, the downstream Kinnickinnic River reach has less capacity to absorb the thermal impacts of Bartosh Canyon storm water. Kiap-TU-Wish temperature monitoring data at two downstream Kinnickinnic River sites show compounding thermal impacts (due to storm water inputs) on top of a higher river baseline temperature (due to the impacts of the hydropower impoundments) (Kiap-TU-Wish, unpublished data).
- Any thermal benefits gained via implementation of the Lake George Area Stormwater Treatment Concept Plan (City of River Falls, 2005) are partially offset by the thermal impacts of Lake Louise.

Recommended Study Elements to Evaluate Implications for Storm Water Management:

The following studies would help determine whether removal of the City of River Falls hydropower impoundments would have significant benefits for future City of River Falls storm water management efforts:

- Va.** Determine the extent to which implementation of the Lake George Area Stormwater Treatment Concept Plan could be more effective with the hydropower impoundments removed. Benefits could include enhanced thermal performance and additional space and infiltration capacity for the stormwater BMPs in Lake George and at upstream storm sewershed outlet locations. The existing USACE thermal model created for the Lake George Stormwater Treatment Concept Plan (City of River Falls, 2005) could be used to compare the thermal performance of Lake George stormwater BMPs with and without the two hydropower impoundments.

- Vb.** Determine the extent to which removal of the hydropower impoundments could create additional space and infiltration capacity for treatment of West Side and Bartosh Canyon storm water. This could perhaps be achieved with infiltration-based stormwater BMPs in existing or newly-created upland areas proximate to the new river channel. The City of River Falls North Kinnickinnic River Monitoring Project (2004-2013) has demonstrated the effectiveness of the city’s storm water ordinance and the use of infiltration-based storm water BMPs (City of River Falls, 2013). Benefits would include reducing storm water volume, thermal impacts, and pollutants and re-charging shallow aquifers that provide cool baseflow to the river. Any concept plan created for this storm water management scenario could incorporate other community amenities, including park land, wildlife habitat, and recreational opportunities.

Study Design and Implementation

All of the study elements recommended above (in Study Components I-V) should be designed and conducted by qualified water resource professionals. The study protocols used for monitoring, data collection, and/or analysis should be consistent with those used by water resource agencies (Minnesota Pollution Control Agency, Minnesota Department of Natural Resources, Metropolitan Council Environmental Services, Wisconsin Department of Natural Resources, U.S. Geological Survey, U.S. Environmental Protection Agency) and/or as documented in peer-reviewed literature and reports (see **References**, below). Kiap-TU-Wish would greatly appreciate the opportunity to work with the City of River Falls and their water resource consultants on study design, selection of appropriate protocols and methodologies, and data analysis.

From the Nonpoint Source Control Plan for the Kinnickinnic River Priority Watershed Project (p. 96):

“This plan does not take a position relative to the future of the dams in River Falls. However, it is important to recognize that the dams do create both positive and negative impacts for the ecosystem and human users of the watershed that should be analyzed prior to major reinvestment in the future.”

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05/08/14

From: [Duke Welter](#)
To: [Raymond French](#)
Subject: City of River Falls FERC Relicensing proposal
Date: Friday, May 16, 2014 2:09:49 PM



May 16, 2014

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

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

Dear Mr. French:

Trout Unlimited works across this nation to “preserve, protect and restore” our coldwater resources. Our 155,000 members include almost 5,000 in Wisconsin and the members of the well-respected Kiap-TU-Wish chapter in Pierce and St. Croix counties. As part of our mission, we work where possible to reconnect streams that have dams which have outlived their usefulness. We know that streams disconnected by dams are degraded and lose their healthy river functions: sediment transport is replaced with silt-filled impoundments. Stream fauna can’t migrate normally and share genetics with other parts of the river. Recreation is limited by poor water quality.

In my role as Western Great Lakes Conservation Coordinator for Trout Unlimited, I evaluate conservation issues and opportunities as a member of the TU National staff. I have reviewed the PAD, attended both the public meetings held thus far, and visited the sites. Over the last 20 years I have been involved in discussions of potential dam removals on sites across the Midwest and the nation, primarily concerned with dams’ impacts on coldwater streams and rivers.

Cities across the Midwest—including some not far from River Falls—have evaluated the impacts of dams within their boundaries, and many have decided the dams no longer served a useful purpose. About 15 years ago Baraboo, for instance, looked at four dams on the

Baraboo River and eventually decided to remove them. Now Baraboo residents are proud of the riverside park, bike trail, and paddling opportunities, and recognize that many visitors come to their city to enjoy them and enhance the local economy. In Colfax, a dam on Eighteen Mile Creek was removed in 1998. The former impoundment was planted, the stream restored as trout habitat, and the village enjoys a lovely new park on its site. When River Falls citizens evaluate the pluses and minuses of keeping or removing these dams, they should study other communities where similar decisions have been made and see what could happen on the Kinnickinnic River.

This proposed FERC relicensing gives City of River Falls an opportunity for a broad-scale assessment of the impacts of the two dams it owns on the Kinnickinnic River. We believe the range of questions to be addressed covers much more than the scientific impacts. Economics will play a key role, and other residents will doubtless request detailed analyses of the costs of repairs and maintenance during the proposed life of a FERC license and the economic value of a free-flowing river and attendant public parklands and green space.

We have reviewed the request for various biological, hydrologic, thermal and stormwater management studies presented by Kiap-TU-Wish Chapter of Trout Unlimited and prepared by Kent Johnson, a professional water scientist, and we concur in the request for each of those studies.

The Kinnickinnic River is locally and nationally recognized as a trout stream of high quality as well as one of River Falls' exceptional assets. The current proposal gives city residents a chance to better understand the value and role of the river, its present limitations and its potential. Thank you.

Sincerely,

John (Duke) Welter

Trout Unlimited

S7075 Weber Road

Viroqua WI 54665

608-675-3184; dwelter@tu.org

Cc: Kimberly Bose, Secretary, Federal Energy Regulatory Commission

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May 18, 2014

Friends of the Kinni
PO Box 283
River Falls, WI 54022
Dr. Michael S Page, mspdds@gmail.com
Mr. Hal Watson, hal.watson@mac.com

TO: Mr. Ray French
Management Analyst
City of River Falls
222 Lewis St
River Falls, WI 54022
rfrench@rfcity.org

CC: Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426
via FERC online e-file

Re: River Falls Hydroelectric Project, FERC Project No. P-10489, Kinnickinnic River, Pierce County, Wisconsin: Comments on Preliminary Application Document and Study Request

Dear Mr. French,

The Friends of the Kinni offers the following comments and study recommendations for the River Falls Hydroelectric Project having reviewed the Preliminary Application Document (PAD) and attended the local stakeholder meeting on March 24th, 2014. These comments and study requests are unique, and in addition to any others that will come to you from the Friends of the Kinni. If you have any specific comments or questions regarding these comments and study requests you may contact Michael Page at mspdds@gmail.com or 612-810-3949. Thank you.

BACKGROUND

The license period for the River Falls Hydroelectric Project due to expire August 31st of 2018 is the first 30 year term of licensure this hydroelectric project has experienced. Prior to this period the hydroelectric project was operated as an unlicensed facility. Contained in the original application from 1988 to the Federal Energy Regulatory Commission was a brief section highlighting the recreational, land use and aesthetic impacts of the hydroelectric project. The overwhelming theme throughout this section was that the existing dam structures have been in place for a long time, the facilities would remain unchanged, and that this would result in no further impact on recreational or aesthetic resources.

This underlying assumption in the original application, and in the current PAD, that this project has had an unquantified but assumedly negligible impact on recreational opportunities and aesthetic resources does not constitute sufficient consideration of these issues. To state that there

were no major changes previously or currently planned for the facility and its operation does not entail that the status-quo recreational and aesthetic impacts of the project are desirable or acceptable. As a community we now place an immense value on the preservation and expansion of recreational opportunities and aesthetic resources, a value which must play an important role in the relicensing process of this facility.

Today, the current Preliminary Application Document (PAD) for the River Falls Hydroelectric Project reads much along the same lines as the original application. There are no forward looking considerations regarding the potential for increased or improved recreational opportunities or aesthetic resources associated with the project. Nor is there any consideration for the impact of the project on the visual integrity of the riverway, the impact on tourism to our community or the project's effect on the vitality of our Main Street community which sits immediately adjacent to the upper impoundment above the Junction Falls Dam.

The FERC Form 80 - *Licensed Hydropower Development Recreation Report* is used to "identify recreational facilities located at licensed projects, determine whether public recreational needs are being accommodated by the facilities, and determine whether additional efforts could be made to meet future needs" (FERC, 2014). It is a license requirement that Form 80 be filed once every 6 years by the licensee, with the most recent due date of April 1, 2009, and the next subsequent date due of April 1, 2015. Currently, the City of River Falls is considered to be in a state of "non-compliance" for having failed to file a Form 80 in 2009. The FERC Office of Energy Projects sent the River Falls Municipal Utility a letter dated January 29, 2014 reminding them that they are in a state of non-compliance, and that it is a license obligation "to gather recreation use data at your hydropower projects, for a period beginning no later than March 15, 2014" (FERC, Jan 2014). According to a City of River Falls representative, as of May 13, 2014 no such research into recreation use has been initiated by the River Falls Municipal Utility.

The City of River Falls has produced two copies of the previously submitted Form 80, from the years 1991 and 1996. To our knowledge, there is no record of any other Form 80 submissions. These two Form 80 submissions from 1991 and 1996 contain essentially the same data in each. This similarity brings into question whether independent analysis of recreation was conducted for the second submission, and it is not known if any independent analysis was conducted for the first submission either. (Attachments #1 & 2)

On March 19, 1997 the River Falls Municipal Utility requested exemption from the Form 80 filing requirement, stating "there is no existing or potential recreational use of these facilities because the ponds are too small and the water is too shallow to support any meaningful recreational activity" (Marma, 1997). On April 15, 1997 the Federal Energy Regulatory Commission denied the exemption request and reminded the River Falls Municipal Utility that it would be required to file a Form 80 every 6 years throughout its license period with the next submission due April 1st, 2003 (FERC, 1997). Following

this communication, the River Falls Municipal Utility did not submit a Form 80 in 2003 and has not made any further Form 80 submissions since 1996, even though their exemption request was denied.

Recreational opportunities on the Kinni have been adversely affected within the impoundment area since the installation of the dams. Longtime staff of the River Falls Municipal Utility recall that in the past there were canoe portages around both the upper and lower dams, and that those portages are no longer maintained. The original license application in 1988 included the requirement for canoe portages, but was then amended on August 16, 1990 to delete the requirement for the installation of canoe portages, citing "no traditional canoeing use of the Kinnickinnic River" (FERC, 1990). This amendment included the stipulation that "if, however, based on additional information provided to the Commission, or changes in recreational use of the project, the need for such a facility (portages around the dams) becomes apparent, the Commission should reserve the right to require installation of the facilities" (FERC, 1990). Another utility staff member has suggested in conversation that in the last twelve years he has not seen anyone out on the water of the lower impoundment between the two dams. In the last decade, however, kayaking has become a growing recreational use of the Kinnickinnic River both upstream and downstream from the project area. Recreational kayaking now supports three distinct businesses in town; however, their utilization of the river is limited to areas outside of the project due to the lack of portages around the dams and the limited appeal of kayaking or fishing on the two impoundments.

Fishing and kayaking are not the only recreational uses that have been negatively affected by the dams. Recollections of lifelong River Falls residents include swimming, canoeing, waterskiing, and catching warm water fish species from the two impoundments, and also catching trout from the spring ponds just to the west of the upper dam near the power plant building. Sadly, today the two impoundments no longer support any fishery or desirable recreational opportunities. The one remaining spring pond feeds the Kinnickinnic River with a substantial and regular flow of water comparable to that of the Rocky Branch of the Kinnickinnic. Of the two ponds shown on the map (Figures 1 & 2), one pond is still present, while the other pond has been filled in with waste cement scrap as a part of the adjacent City of River Falls Yard Waste Dump. There are no longer any substantial numbers of trout in the remaining pond, and the recreational trails surrounding this area around and below the upper dam are in disrepair having received negligible maintenance over the years. A part of this trail was the former portage around the upper dam, and a sign still stands at the site (Figure 1).

It is clear in reviewing the collective documentation related to the impact of the River Falls Hydroelectric Project on recreational opportunities, tourism and aesthetic values, that no real comprehensive assessment has been done to date. Thus, it is vitally important that an appropriate level of attention and detail is included within the necessary studies conducted as a part of the current FERC relicensing process.



Figure 1: Sign for "Lowland Trail" on the property of power plant building, adjacent to the Upper "Junction Falls" Dam.



Figure 2: "Lowland Trail" sign in disrepair showing trails around the Upper "Junction Falls" Dam which are no longer maintained, including the former canoe portage. The Upper Dam is located to the west of the bridge pictured crossing the water on the map.

COMMENTS ON THE PAD

Section 3.5 "Recreation and Land Use"

The current PAD primarily addresses recreational consideration for the areas in the general vicinity of the project area (i.e. the South Fork as it runs through the University of Wisconsin River Falls campus and the Lower Kinni from below the Powell Dam outflow to the St. Croix River). It does not discuss the recreational opportunities (or lack thereof) within the actual boundaries of the project, especially the immediate impacts of the impoundments and the dam structures themselves to recreation. The impoundments are currently silted in to a point that the water depth in the majority of both lakes is only 1 - 3 feet deep (Downing, 2006), with the only signs of life in the two waters being primarily algae bloom. Consideration must be paid to the immediate area of the impoundments and how those areas are currently utilized for recreation and also how they could be better utilized should the project facility cease operation and the dams be removed.

The Wisconsin DNR created a blueprint for State and local outdoor recreation planning in *The 2011-2016 Wisconsin Statewide Comprehensive Outdoor Recreation Plan* (WI SCORP). This document focuses on the needs of our population centers for accessible urban recreational opportunities as requested through the US Department of the Interior America's Great Outdoors (AGO) initiative. This document's vision takes a baseline perspective that increasing outdoor recreational opportunities is an expected outcome for planning exercises such as the PAD. The WI SCORP further identifies the major public health benefits of expanding urban outdoor recreation opportunities and discusses the presence of barriers to urban recreation and how those barriers affect a community. In keeping with these guidelines, future planning efforts by the City of River Falls should include this philosophy, create new outdoor recreational opportunities, look beyond the 30 years of status quo and explore alternative futures for the waterway. (WI DNR, 2011)

In 2013 the City of River Falls partnered with the National Research Center to conduct its first ever comprehensive survey of local citizens. The result of this citizen survey includes an "action chart" identifying three key drivers to citizen satisfaction: public schools, economic development, and the preservation of natural areas. These key drivers should guide our community leaders as they establish the path our city will follow over the years to come. The immediate hydroelectric project area presents a rare opportunity to restore a significant and historic natural area while also creating new opportunities for ecotourism and economic revitalization of our main street community. These outcomes fall directly in line with the citizen's priorities as presented in the report. (City of River Falls, 2013)

Section 3.6 "Aesthetic Resources:"

The City's PAD indicates that the structures, buildings, generation facilities and reservoirs involved with the hydroelectric project have been

part of the River Falls landscape for many years. This is true, however these man-made structures and reservoirs should not be considered to be "improvements" over the natural free-flowing river and historic waterfalls which are currently submerged under concrete and impoundments (Figures 3 & 4). Thoughtfully considering an aesthetic within the PAD that values the natural and visual integrity of the project area would be more in keeping with the City of River Falls' Comprehensive Plan.



Figure 3: Historic Junction Falls photographed before the construction of any dam on the Kinnickinnic River. These falls are currently submerged below the upper impoundment, the foundation of the Upper "Junction Falls" Dam sits immediately upstream from the lower shelf of the falls.



Figure 4: The Upper "Junction Falls" Dam. The lower shelf of the historic Junction Falls now exists as the dry rock wall below the dam due to the diversion of water through the hydroelectric facility.

The City of River Falls Comprehensive Plan highlights the establishment of a "sense of place" while building the city's unique character. The Plan states that "In order that the City's downtown sense of place is cared for, sensitive management of identified resources must take place... the River acts as the spine of a system of parks, paths, and green space that extends into downtown". Notably, the city's comprehensive plan makes no mention of the two impoundments whatsoever, and especially not as being of any value to the community's "sense of place". The City's Comprehensive Plan further states that "The Kinnickinnic River is perhaps the finest coldwater resource in the Upper Midwest, if not in the entire United States... This natural gem is truly unique and the centerpiece of our community which is located on the falls of the Kinnickinnic River." What is left unstated is that these significant, historic falls are no longer a centerpiece of our community because they have been rendered invisible as a result of the hydroelectric facilities and their operation. (City of River Falls, 2005)

Still, as the Comprehensive Plan states, "The Kinnickinnic River contributes a unique character and quality of life to the City of River Falls and surrounding area. It provides a pleasant natural environment close at hand, and contributes to the economic and social prosperity by enhancing the attractiveness of the community to businesses and residents. These benefits can only derive from a healthy and vital river. The Kinni is a major natural community amenity that deserves our very best efforts to protect it as growth occurs." (City of River Falls, 2005)

The City of River Falls needs to formally study the degradation the current hydroelectric operations pose to the cultural, visual and aesthetic integrity of the river as it flows through the center of our community. The economic cost of the lost opportunity to link the river and recreational activities on it to the heart of our downtown businesses should be included in these studies. It is not sufficient to look only at the economic impacts of electricity generation and dam maintenance. We must also factor in the ecological, psychological, recreational, aesthetic and spiritual benefits from a free-flowing river compared to the existing conditions. This includes exploring the externalities of having the dams in place.

STUDY RECOMMENDATION

A Comprehensive Study of Recreation, Tourism, and Aesthetic Resources of the River Falls Hydroelectric Project Area and their Economic Values in Comparison to Alternative Futures for the Same Area and their Social and Economic Impacts on the City of River Falls

Goals and Objectives:

To ascertain a baseline inventory of the current recreational, tourism and aesthetic resources available in the River Falls Hydroelectric Project's current form, and to establish an economic value of said resources.

To establish an opportunity cost economic valuation for recreational, tourism, and aesthetic resources currently unavailable due to the presence of the dams and impoundments that would otherwise be available to the community in alternative futures for the area.

To directly compare the value of the current opportunities with the value of potential opportunities of alternative futures, to be included with the consideration of the revenues and expenses associated with either maintenance or removal of the hydroelectric project.

Resource Management Goals:

Per the Wisconsin Statewide Comprehensive Outdoor Recreation Plan (WI SCORP), in alignment with the Land and Water Conservation Fund (LWCF) and America's Great Outdoors (AGO) Initiative, communities should be looking to expand their outdoor recreation opportunities as they plan for the future. The WI

SCORP lists a number of goals in this comprehensive guide (WI DNR, 2011) which are directly relevant to this study:

Assess, Understand, and Adapt to Growing Recreation Tourism Demands and Preferences

Improve Integration of Outdoor Recreation Interests and Needs in Land Use and Other Relevant Planning Efforts

Continue to Provide and Enhance Public Access to Wisconsin Recreational Lands and Waters

Promote Outdoor Recreation as a Means of Improving Public Health Among Wisconsinites

Establish Great Urban Parks and Community Green Spaces

Public Interest Considerations:

The comprehensive Citizen Survey conducted in 2013 by the City of River Falls highlights an "action chart" identifying three key drivers to citizen satisfaction: public schools, economic development, and the preservation of natural areas. The immediate hydroelectric project area presents a rare opportunity to restore a significant and historic natural area while also creating new opportunities for ecotourism and economic revitalization of our main street community. These outcomes fall directly in line with the citizen's priorities as presented in the report derived directly from a survey of those living in our community. (City of River Falls, 2013)

Johnson and Graber (2002) have found that communities are often reluctant to consider the removal of old and obsolete dams, even when removal costs much less than dam repair or long term maintenance. They describe some of the social and psychological barriers that prevent individuals and communities from considering dam removal as an option and propose creative methods (e.g., community-based social marketing, diffusion of innovations) for encouraging the adoption of management practices that can restore river ecosystems.

Existing Information:

The City of River Falls has created a website database including all publicly available resources pertaining to the FERC relicensing of the River Falls Hydroelectric Project (City of River Falls, 2014). There does not appear to be at this time any credible studies present focusing on recreation, tourism, or aesthetic opportunities. The 2013 PAD for the Project states "there are abundant opportunities for recreation within the project area" and then goes on to reference recreation opportunities on the rest of the Kinnickinnic River outside of the area of the impoundments and the two dams. There is no direct reference in the current PAD to recreation, tourism, or aesthetic opportunities within the project area itself or that the two impoundments

support. This is possibly the greatest area of further research necessary when considering the impacts of the Project on our community.

Projects Operations and Effects on Resources:

The nexus between the Project operations and effects on the resources to be studied is immediately apparent. The Project itself creates a physical barrier between the Lower Kinnickinnic River and the immediate areas of the two impoundments in the center of the City of River Falls. The dams create two impoundments which have completely silted in to a depth of only 1 - 3 feet over the majority of each lake. The impoundments lack the necessary qualities to support any type of warm water or cold water fishery, negating opportunities for enjoyable outdoor recreation or ecotourism. The extensive eutrophication of the impoundments also limits aesthetic and olfactory appeal of the surrounding area.

These two impoundments block the flow of an entire mile of the length of the Kinnickinnic River as it courses through the City of River Falls. Outside the Project boundary the Kinnickinnic River is officially designated a Class I Trout Stream, but within the project boundary, the waterway does not support a trout fishery. The restoration of this mile of trout stream within our community would draw fishermen into our city, fishermen who would otherwise remain on the outskirts of our town, and who would then be more likely to frequent our local businesses.

Furthermore, the falls of the Kinnickinnic River for which the City of River Falls is named, sit submerged below the flat waters of the impoundments unavailable as a resource to the community for recreation, ecotourism, and the development of an aesthetic restorative landscape. The opportunity cost of the existing hydroelectric project must be measured in terms of what otherwise could be done with the area now submerged below the two impoundments. Perhaps most notably would be the opportunity to restore the Junction Falls, a waterfall in the center of our city which would draw tourism to our community including new visitors who would shop in our stores, eat in our restaurants and sleep in our hotels.

The Willow River State Park just twelve miles north of River Falls currently claims Willow Falls as its main attraction. Willow Falls was formerly obscured by a hydroelectric dam until the removal of that dam in 1992. Willow River State Park attracted over 479,000 visitors in 2010, visitors who had a total annual expenditure of \$29,730,753 (WI DNR, 2013). Approximately 38 miles west of River Falls is Minnehaha Park, which "features" Minnehaha Falls, and is one of the most popular parks in Minneapolis drawing over 850,000 visitors per year (Mpls PRB, 2014). The City of River Falls could potentially see these types of tourism levels with a restored Junction Falls in the heart of our community with the removal of the dams.

Study Methodology:

This study should include:

- 1.) RECREATIONAL USE - Thorough evaluation, baseline inventory, and a survey of current recreational opportunities and utilization of those opportunities along the entire length of the Kinnickinnic River with the dams in place, evaluated along separate zones (upper river, impoundments, lower river, etc)
 - a. A compilation of a list of all recreational opportunities the Kinnickinnic River and the two impoundments offer
 - i. Including specific and current fishing opportunities available both in the river and the impoundments
 - ii. Focus on aquatic recreation opportunities
 - b. To include a baseline inventory and survey of people pursuing activities such as fishing, kayaking, canoeing, swimming, hiking, walking, biking, rock climbing, picnicking, and wildlife viewing
 - c. Compilation of data to gain an understanding of exactly where recreational opportunities are underutilized and/or where improvements in recreational opportunities could be made for our community
 - i. Potential with the dams removed for whitewater kayaking/canoeing and rock climbing opportunities
 - ii. Potential restoration of a trout fishery and increased access to trout fishing with the dams removed
 - iii. Potential with the dams removed for extension and expansion of walking trails, canoe/kayak portages, picnic and viewing areas
 - iv. Potential with the dams removed to create approximately 30 acres of new and expanded urban parks and community green spaces on the land now submerged below the impoundments
 - d. A Survey of local residents' perceptions of available outdoor recreational opportunities and their perceptions of the project's effects on those opportunities
 - e. A Comprehensive economic valuation of those potential improvements and/or expansion of recreational opportunities
- 2.) TOURISM LEVELS - Tourism baseline and impact analysis and survey
 - a. To include a survey of current levels of tourism drawn to our community as a result of the project or to the area of the project
 - i. Why do people come to the project area?
 - ii. How many tourists visit the project area?
 - b. A survey of communities who have experienced dam removal and revitalization of their recreational resources and their experiences with post dam removal tourism
 - i. Baraboo, WI
 - ii. Merrill, WI
 - iii. Willow River State Park - Willow Falls Dam, Mounds Dam
 - iv. Colfax, WI
 - v. West Bend, WI
 - c. A survey of regional waterfalls and their tourism levels
 - i. Willow Falls

- ii. Minnehaha Falls
- iii. Amnicon Falls
- iv. Vermillion Falls
- v. Copper Falls
- d. Consultation with the Great Rivers Confluence and the Great River Road to assess the potential tourism impact of dam removal and restoration of the falls
 - i. Regional tourism traffic baseline and directions of flow along the Great River Road and into the Great Rivers Confluence
 - ii. Comparison to other tourist attractions along the National Scenic Riverway - especially other waterfalls
- e. Consideration of potential for increased tourism due to new recreational opportunities not currently available due to the project
 - i. Whitewater Kayaking/Canoeing
 - ii. Waterfall Viewing
 - iii. Rock Climbing

3.) AESTHETIC VALUE - An estimation of the aesthetic value of the current project and how it affects our "sense of place" in our community, and valuation of possible alternative futures for the area with restoration of the falls in place of the current dams and impoundments

- a. The upper impoundment above the Junction Falls Dam experiences high eutrophication during the warm summer months creating diminished visual appeal and stench
- b. Both impoundments are heavily silted with water depths in the majority of both lakes ranging from only 1 - 3 feet deep
- c. In comparison to the value of the potential "restorative landscape" that could be created with the removal of the dams, the restoration of the falls, and the creation of a continuous and accessible parkland extending from downtown River Falls through to the lower Kinnickinnic
- d. Essentially 30 acres of dry land could be created as parkland and turned into great urban park and community green space

4.) ECONOMIC IMPACT - Comparative analysis should be conducted between the value of the hydroelectric project and its projected revenue/expense in direct comparison to all of the above mentioned values of opportunity cost due to its maintenance. Potential opportunity cost recoverable with the removal of the dams:

- a. Increased recreational opportunity
- b. Increased tourism
- c. Increased aesthetic value
- d. Revitalization of our main street community

Financial considerations associated with alternative futures to dam relicensing must be investigated. These include potential economic stimulus as a result of recreational tourism influx if the dams were to be removed and the resulting river restored with a revitalized recreational area and parkland in the heart of our community. A comparative model developed based on similar dam removals in similar communities would be an appropriate model

to use for study of potential economic benefits. We must also consider expenses of such a development, expenses of developing a plan for such a development, expenses of dam removal, the expenses of stream bank restoration through this stretch of river, and the potential sources of revenue to cover such expenses associated with dam removal. Whitelaw and MacMullan provide a conceptual framework for a comprehensive cost-benefit analysis of dam removal. They suggest a sound framework must account for both subsidies and externalities and place costs and benefits, over both the short and the long run, in a realistic economic context. (Whitelaw and MacMullan, 2002)

Level of Effort and Cost:

Once the study parameters are firmly delineated, we recommend a consulting firm be contracted to help establish formal and scientifically valid research methods, estimate levels of effort and cost associated with this vital research, and possibly to conduct the research as well. Based on comments by City staff at the March 24, 2014 public meetings, community stakeholders such as Friends of the Kinni have a reasonable expectation that as part of the relicensing process we shall be a partner with the City in setting such parameters, reviewing study methods, and analyzing results.

CONCLUSION

The Friends of the Kinni truly wishes to see the best possible outcome for our river and for our community of River Falls. We feel that if the formal studies that come from the FERC relicensing process are truly objective and independent, and if they cover these important economic, environmental, recreational, and aesthetic issues thoroughly and fairly, then we can reliably use the results to make the important decisions that face us as a community. We also believe that the return of our Falls to the City of River Falls would bring new benefits to our community, benefits of; urban recreation, beautification, new business opportunities, improved water quality, a rallying point for City pride, increased tourism, better fishing, a healthier river, and much more.

Thank you for your consideration.

Sincerely,



Dr. Michael S Page



Mr Hal Watson

Friends of the Kinni

REFERENCES

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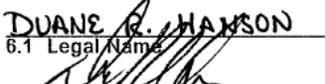
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ATTACHMENTS

Attachment #1: Form 80 - River Falls Municipal Utility 1991 Submission.

<p>Federal Energy Regulatory Commission (FERC) FERC Form 80</p>	<p>Licensed Hydropower Development Recreation Report</p>	<p>Form Approved OMB No. 1902-0001 Expires: 12/31/82 Burden: 3.0 hours</p>											
<p>This form collects data on recreational facilities at projects licensed by the Federal Energy Regulatory Commission (Commission) under the Federal Power Act (16 USC 792-828c), and is therefore mandatory. Failure to report may result in criminal fines, civil penalties and other sanctions as provided by law. This form must be submitted by licensees of all projects except those exempted under 18 CFR 8.11. (See Glossary Definition Number 2, Exemption). Submit this form on or before April 1, 1991. Submit subsequent filings of this form on or before April 1, every 4th year thereafter (for example, submit in 1995, 1999, 2003, etc.). Submit to the Commission's Regional Office (specified in the cover letter to this form) an original, and 3 copies of this form and any attachments for each development within each project. For further information, or an explanation of the instructions in this form, or for additional copies of the form, contact the Commission's Regional Office specified in the cover letter to this form. The public burden for this form is estimated to average 3 hours per response, including the time of reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Please send your comments about this burden estimate, or any other aspect of this collection of information, including suggestions for reducing this burden to: the Energy Information Administration, Office of Statistical Standards, EI-73, Mail Station 1M-023, Forrestal, 1000 Independence Avenue SW, Washington, DC 20585; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.</p>													
<p>Schedule 1. Public Use Information: Please read the instructions and glossary before completing this form.</p>													
<p>1. Instructions:</p> <p>1.1 All data reported on this form must represent recreational facilities and services located within the development boundary.</p> <p>1.2 To insure a common understanding of terms, please refer to the Glossary on page 3.</p> <p>1.3 Report actual data for each item. If actual data are unavailable, then please estimate.</p>													
<p>2.1 Licensee Name: <u>CITY OF RIVER FALLS, WI</u></p> <p>2.11 Licensee No (FERC Use Only): _____</p> <p>2.12 Type of Project License: (Enter "1" for major projects and "2" for minor projects licensed by the Commission): <u>2</u>.</p> <p>2.13 Type of Project Operation: (Enter a "1" for projects operating in run-of-river mode, and a "2" for those projects operating in peaking mode): <u>1</u></p> <p>2.2 Project Name: <u>RIVER FALLS</u></p> <p>2.21 Project Number: <u>1 0 4 8 9</u></p> <p>2.3 Development Name: <u>JUNCTION FALLS AND POWELL FALLS</u></p> <p>2.31 Dev No (FERC Use Only): _____</p> <p>3.1 States Project Traverses (abbreviated):</p> <p>3.11 State #1: <u>W I</u> (List State(s) with largest</p> <p>3.12 State #2: _____ to smallest area within</p> <p>3.13 State #3: _____ the Development boundary)</p>	<p>3.2 Name of Stream: <u>KINNICKINNIC RIVER AND SOUTH FORK OF KINNICKINNIC RIVER</u></p> <p>3.21 Name of Drainage Basin: <u>ST. CROIX RIVER JUNCTION FALLS-14.5A</u></p> <p>3.3 Reservoir Surface Acres: <u>POWER FALLS 18A</u> TOTAL=32.5A</p> <p>3.4 Shoreline Miles at Normal Pool Elevation: <u>1 1/2 MI</u></p> <p>3.5 Name of Nearest City with a Population of 40,000 or More: <u>ST. PAUL, MN</u></p> <p>3.51 Distance: From Nearest City to the Dam: <u>35M</u></p> <p>3.52 Population of this Nearest City: <u>400,000</u></p> <p>3.6 Estimated Population within 100 mile Radius from the Dam: <u>1,500,000</u></p> <p>3.7 Pct. of Shoreline Safely Accessible to the General Public by Land Travel without Trespassing: <u>75.0 %</u></p> <p>3.8 Length of Recreation Season:</p> <p>3.81 Summer: From (MM/DD): <u>5 / 1</u> To: <u>9 / 30</u></p> <p>3.82 Winter: From (MM/DD): <u>11 / 1</u> To: <u>3 / 1</u></p>												
<p>Enter the number of visits to all recreational areas (in Recreation Days) as specified in 4.1/4.2 below (in 1000's).</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Period (a)</th> <th colspan="2">Number of Recreation Days</th> </tr> <tr> <th>Annual Total (1000's) (b)</th> <th>Peak Weekend Average (1000's) (c)</th> </tr> </thead> <tbody> <tr> <td>4.1 Daytime</td> <td style="text-align: center;">1,500</td> <td style="text-align: center;">.0100</td> </tr> <tr> <td>4.2 Nighttime</td> <td style="text-align: center;">NA</td> <td style="text-align: center;">NA</td> </tr> </tbody> </table>			Period (a)	Number of Recreation Days		Annual Total (1000's) (b)	Peak Weekend Average (1000's) (c)	4.1 Daytime	1,500	.0100	4.2 Nighttime	NA	NA
Period (a)	Number of Recreation Days												
	Annual Total (1000's) (b)	Peak Weekend Average (1000's) (c)											
4.1 Daytime	1,500	.0100											
4.2 Nighttime	NA	NA											
<p>For the previous calendar year, enter only the licensee's annual recreational operation and maintenance costs for the development (project). Also enter the corresponding annual revenues in whole dollars.</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Item (a)</th> <th colspan="2">Licensee's Annual Recreation Costs and Revenues (In Whole Dollars)</th> </tr> <tr> <th>Operation and Maintenance Costs (b)</th> <th>Revenues For Calendar Year (c)</th> </tr> </thead> <tbody> <tr> <td>5. Dollar Values:</td> <td style="text-align: center;">NA</td> <td style="text-align: center;">NA</td> </tr> </tbody> </table>			Item (a)	Licensee's Annual Recreation Costs and Revenues (In Whole Dollars)		Operation and Maintenance Costs (b)	Revenues For Calendar Year (c)	5. Dollar Values:	NA	NA			
Item (a)	Licensee's Annual Recreation Costs and Revenues (In Whole Dollars)												
	Operation and Maintenance Costs (b)	Revenues For Calendar Year (c)											
5. Dollar Values:	NA	NA											
<p>6. Respondent Certification: The undersigned certifies that he/she has examined the accompanying data; and that to the best of his/her knowledge, information and belief, all historical & estimated data provided herein and appended hereto are true, complete, and accurate.</p>													
<p><u>DUANE R. HAMSON</u></p> <p>6.1 Legal Name</p> <p></p> <p>6.4 Signature</p>	<p><u>UTILITY DIRECTOR</u></p> <p>6.2 Title</p> <p><u>3-20-91</u></p> <p>6.5 Date Signed</p>	<p><u>(715) 425-0900</u></p> <p>6.3 Area Code/Phone No.</p> <p><u>1990</u></p> <p>6.6 Reporting Year Ending</p>											
<p>Title 18 U.S.C. 1001 makes it a crime for any person knowingly and willingly to make to any Agency or Department of the United States any false, fictitious or fraudulent statement or misrepresentation as to any matter within its jurisdiction.</p>													

Licensed Hydropower Development Recreation Report

Schedule 2. Inventory of Recreational Resources

7. Enter data for each Recreational Resource Type (a). For Facility Capacity (e), compare the amount of week-end use for this season reported on Schedule 1, Item 3.8, with the facility's capacity to handle such use and enter a percentage that indicates overuse, underuse, or ideal use. Do not consider peak weekend use (see Glossary). For example, if Boat Ramps (Code = 11) are used to half capacity during a non-peak weekend day, enter 50%. For Boat Ramps that are used beyond their capacity, enter the appropriate percentage above 100.

Code = Recreational Resource Type (a)	No. Rec. Resources		Total Miles/Acres (d)	Facility Capacity (Percent) (e)
	User Free (b)	User Fee (c)		
10 = Access Areas. (No Facilities). Unimproved but well-known/popular sites which can be used to reach development waters (including waters below a dam) without trespassing on other property. Such waters are used for launching boats, fishing, swimming, or other water recreational purposes.	X		N/A	25%
11 = Boat Ramps. Improved areas having one or more boat launching lanes, and which (a) are usually marked with signs, (b) have compacted gravel or concrete surfaces, and (c) usually have adjacent parking lots.	NA	NA	N/A	NA
12 = Boat Launching Lanes. This area at the boat ramp from which boats may be launched into the development water. The number of lanes at a boat ramp are determined by the number of boats that can be launched safely at the boat ramp at one time.	NA	NA	N/A	NA
13 = Fishing Piers. Structures abutting or extending into development waters which are constructed and maintained specifically for fishing. (This code excludes Code 17 = Tailwater Fishing).	NA	NA	N/A	NA
14 = Swimming Areas. Sites providing access to development waters where swimming facilities (both houses, designated swimming areas, parking, and sanitation facilities) are located.	NA	NA	Acres	NA
15 = Marinas. Facilities provided on or adjacent to development waters for the docking, fueling, repair, and storage of boats, and which may rent boats and equipment, or sell bait or food.	NA	NA	Acres	NA
16 = Canoe Portages. Sites located above or below a dam, diversion or other obstruction where persons can launch canoes, and the improved, designated, and maintained trails connecting such sites.	NA	NA	Miles	NA
17 = Tailwater Fishing Facilities. Ramps, walkways, or similar structures to facilitate below-dam fishing.	X	NA	N/A	
18 = White Water Boating. Access areas below a dam that can be used for rafting/kayaking.	NA	NA	N/A	NA
20 = Trails. Improved pathways used for non-automobile recreational travel, which (a) can be located on a reference map, and (b) are designated according to type of use (hiking, biking, trailbikes, snowmobiles, cross-country skiing). This category excludes Code 16 = Canoe Portages.	X		.75 Miles	25%
21 = Playground Areas. Have playground equipment, game courts/fields, jogging tracks, etc.	NA	NA	Acres	NA
40 = Picnic Areas. Areas designated and maintained for picnicking and which contain one or more picnic sites, each of which includes a picnic table and in some cases a cooking grill, trash receptacles, and a parking area.	X		.5 Acres	50%
50 = Camping Areas. (Campgrounds). Areas containing two or more camp-sites, tent sites, or trailer/recreational vehicle (RV) sites which accommodate overnight camping equipment.	NA	NA	Acres	NA
51 = Tent/Trailer/RV Sites. The total number of sites within Camping Areas (Code = 50) that have been specifically developed for tent, trailer, or RV use. Such sites do not include Group Camps (Code = 57).	NA	NA	Acres	NA
56 = Organizational Camps. Camping areas that are maintained and operated by a specific entity but which may be used by other persons or groups (academy camps, military base recreation camps, church camps, handicapped children's camps).	NA	NA	Acres	NA
57 = Group Camps. Camping areas which are equipped with facilities to accommodate use by the general public. Such areas usually require registration or advance reservation.	NA	NA	Acres	NA
60 = Visitor Centers. Facilities located in a kiosk, pavilion or similar structure from which persons may obtain information about the development, its operation, recreational facilities, and related items of interest.	NA	NA	Acres	NA
61 = Parks. Designated areas which usually contain multiple use facilities (picnic sites, playgrounds, swimming beaches, and boat ramps). Individual facilities within each park shall be reported using the appropriate code numbers (e.g., Code 21 = Playground Areas).	NA	NA	Acres	NA
62 = Wildlife Areas. Natural areas and reserves, specifically created and managed for the protection and propagation of wildlife and the viewing of wildlife in their habitat.	NA	NA	NA Acres	NA
64 = Food Services. Restaurants, grocery, and other facilities supplying food & related services.	NA	NA	- Acres	NA
65 = Golf Courses. All types of golf areas, except miniature golf.	NA	NA	- Acres	NA
66 = Hunting Areas. Public or private areas open to the general public for hunting purposes.	NA	NA	- Acres	NA
67 = Interpretive Displays. Historic or prehistoric objects, structures, sites and areas, including associated facilities (exhibits and museums) which describe or preserve archeological, historic or prehistoric activities, artifacts and materials.	NA	NA	- Acres	NA
80 = Cottage/Cabin Sites. Recreational dwellings which are seasonally rented by the public for recreational purposes.	NA	NA	N/A	NA
82 = Overlooks. Public areas to see natural areas/project features (e.g., overlooks, vistas, etc).	NA	NA	NA Acres	NA
84 = Winter Sports. Any facility providing sports like skiing, sledding, ice skating or ice fishing.	NA	NA	N/A	NA
99 = Other (Specify):			A/A	

Glossary of FERC Form 80 Terms

1. **Development.** The portion of a project which includes: (a) a reservoir, or (b) a generating station and its specifically related waterways.
2. **Exemption.** Exemption from the filing of this form granted upon Commission approval of an application by a licensee pursuant to the provisions of 18 CFR 8.11(c).
3. **General Public.** Those persons who *do not have special privileges* to use the shoreline for recreational purposes, such as waterfront property ownership, water-privileged community rights, or renters with such privileges.
4. **Land Travel.** Travel on land by conventional means, such as by automobile or other non-off-road vehicle, or within easy walking distance from an automobile.
5. **Licensee.** Any person, state, or municipality licensed under the provisions of Section 4 of the Federal Power Act, and any assignee or successor in interest. For the purposes of this form, the terms licensee, owner, and respondent are interchangeable *except where:* (a) the owner or licensee is a subsidiary of a parent company which has been or is required to file this form; or (b) there is more than one owner or licensee, of whom only one is responsible for filing this form. Enter the name of the entity that is responsible for filing this report in Schedule 1, Item 2.1.
6. **Peak Use Weekend.** Weekends when recreational use is at its peak for the season (July 4th weekend and other holiday weekends). On these weekends, recreational use may exceed the capacity of the area to handle such use.
7. **Major License.** A license for a project of more than 2,000 horsepower (1.5 megawatts) installed capacity.
8. **Minor License.** A license for a project of 2,000 horsepower (1.5 megawatts) or less installed capacity.
9. **No. Rec. Resources.** Quantify the supply of natural or man-made property or facilities that are available for a given recreational resource type.
10. **Recreation Day.** Each visit by a person to a development for recreational purposes during any portion of a 24-hour period.

Federal Energy Regulatory Commission (FERC)
FERC Form 80

Licensed Hydropower Development Recreation Report

Form Approved
OMB No. 1902-0106
Expires: 09/30/98
Burden: 3.0 hours

This form collects data on recreational facilities at projects licensed by the Federal Energy Regulatory Commission under the Federal Power Act (16 USC 791a-825r). This form must be submitted by licensees of all projects except those specifically exempted under 18 CFR 8.11 (c). Submit this form on or before April 1, 1997. Submit subsequent filings of this form on or before April 1, every 6th year thereafter (for example, 2003, 2009, etc.). Submit an original and three copies of the form to the Commission's Regional Office (specified in the cover letter to this form). The public burden estimated for this form is three hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing the collection of information. Please send your comments about this burden estimate, or any other aspect of this collection of information, including suggestions to reduce the burden, to: Director, Division of Project Compliance and Administration, Federal Energy Regulatory Commission, 888 First Street NE, Washington, D.C. 20426 and the Office of Information and Regulatory Affairs, Desk Officer-FERC, Office of Management and Budget, Washington, D.C. 20503.

Failure to comply with this collection of information will not result in a penalty, if you were unaware that a valid control number assigned by the Office of Management and Budget must be displayed on this collection of information.

Schedule 1. Public Use Information: Please read the instructions and glossary before completing this form		
<p>1. Instructions:</p> <p>1.1 All data reported on this form must represent recreational facilities and services located within the development boundary.</p> <p>1.2 To insure a common understanding of terms, please refer to the Glossary on page 3.</p> <p>1.3 Report actual data for each item. If actual data are unavailable, then please estimate.</p>		
<p>2.1 Licensee Name: <u>CITY OF RIVER FALLS, WI</u></p> <p>2.2 Project Name: <u>RIVER FALLS</u></p> <p>2.21 Project Number: <u>10489</u></p> <p>2.3 Development Name: <u>JUNCTION FALLS AND POWELL FALLS</u></p> <p>2.4 States Project Traverses (abbreviated):</p> <p>2.41 State #1: <u>WI</u> (List State(s) with largest to smallest area within the Development boundary)</p> <p>2.42 State #2: _____</p> <p>2.5 Type of Project License: Major _____ (Check One) Minor <input checked="" type="checkbox"/></p>	<p>3.1 Name of Stream: <u>KINNICKINNIC RIVER AND SOUTH FORK OF KINNICKINNIC RIVER</u></p> <p>3.2 Reservoir Surface Acres: <u>JUNCTION FALLS = 14.5 A POWELL FALLS = 18.0 A TOTAL = 32.5 A</u></p> <p>3.3 Shoreline Miles at Normal Pool Elevation: <u>1 1/2 MI</u></p> <p>3.4 Name of Nearest City with a Population of 40,000 or More: <u>ST PAUL, MN</u></p> <p>3.41 Distance: From This City to the Dam: <u>35 M</u></p> <p>3.42 Population of This City: <u>400,000</u></p> <p>3.5 Estimated Population Within 100 mile Radius from the Dam: <u>1,500,000</u></p> <p>3.6 Percent of Shoreline Safely Accessible to the General Public by Land Travel Without Trespassing: <u>75 . 0%</u></p>	
<p>For the previous calendar year, enter only the licensee's annual recreational construction, operation, and maintenance costs for the development (project). Also enter the corresponding annual recreation revenues in whole dollars.</p>		
	Licensee's Annual Recreation Costs and Revenues (In Whole Dollars)	
Item	Construction, Operation and Maintenance Costs	Recreation Revenues for Calendar Year
4. Dollar Values:	NA	NA
<p>5. Length of Recreation Season</p> <p>Summer: From (MM/DD): <u>05 / 01</u> To: <u>09 / 30</u> Winter: From (MM/DD): <u>11 / 01</u> To: <u>03 / 01</u></p>		
Enter the number of visits to all recreational areas at development (in Recreation Days)		
Period	Number of Recreation days	
	Annual Total <small>(10⁶ 10³)</small>	Peak Weekend Average <small>10¹ 10⁰</small>
6.1 Daytime	1,500	.0100
6.2 Nighttime	NA	NA

Licensed Hydropower Development Recreation Report

Glossary of FERC Form 80 Terms

1. **Development.** The portion of a project which includes:
 - (a) a reservoir, or
 - (b) a generating station and its specifically-related waterways.
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 - (a) the owner or licensee is a subsidiary of a parent company which has been or is required to file this form; or
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7. **Minor License.** A license for a project of 2,000 horsepower (1.5 megawatts) or less installed capacity.
8. **No. Rec. Resources.** Quantify the supply of natural or man-made property or facilities that are available for given recreational resource type.
9. **Recreation Day.** Each visit by a person to a development for recreational purposes during any portion of a 24-hour period.
10. **Revenues:** Income generated from recreation facilities at project development. Includes fees for access or use of area.

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United States Department of the Interior

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

May 19, 2014

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

Re: FERC Project No. 10489
River Falls Hydroelectric Project
Comments on PAD and Study Requests
Kinnickinnic River, Pierce County, Wisconsin

Dear Mr. French:

The U.S. Fish and Wildlife Service (FWS) has reviewed the Pre-Application Document (PAD) and attended the Joint Meeting: First Stage Consultation for the relicensing of a Federal Energy Regulatory Commission license on March 17, 2014, in River Falls, Wisconsin. In accordance with 18 CFR, Section 16.8(b)(5), the FWS is filing these comments no later than 60 days after the joint meeting held under 18 CFR, Section 16.8(b)(3). Our comments on the PAD and general comments and request for further information follow.

Regulations created pursuant to the Federal Power Act (FPA), as amended, require consultation with the FWS and other resource agencies (18 C.F.R. § 4.38(a) and 18 C.F.R. § 5.1(d)). This response is provided in accordance with provisions of the National Environmental Policy Act (NEPA) of 1969 (83 Stat. 852; 42 U.S.C. 4321 et seq.), the Endangered Species Act (ESA) of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.), the Bald and Golden Eagle Protection Act (BGEPA) (54 Stat. 250, as amended, 16 U.S.C. 668a-d), the Migratory Bird Treaty Act (MBTA) (40 Stat. 755, as amended; 16 U.S.C. 703 et seq.), and the Fish and Wildlife Coordination Act (FWCA) (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.).

GENERAL COMMENTS

The River Falls Hydroelectric Project consists of two hydroelectric dams: (1) Upper facilities with (a) a 140-foot-long and 32-foot-high concrete dam; (b) a 15.5-acre reservoir with a storage capacity of 142.7 acre-feet; (c) an 80-foot-long by 6-foot diameter penstock; (d) a powerhouse containing one 250 kW generator, and (2) Lower Facilities with; (a) a 110-foot-long and 16.5-foot-high concrete dam located approximately 0.5 mile downstream of the upper dam; (b) a 15.4 acre reservoir with a storage capacity of 37 acre-feet; and (c) a powerhouse containing one 125-kW generating unit; for a combined total installed generating capacity of 375 kW.

A unique feature of this project is its proximity to the high quality cold-water trout fisheries of the Upper and Lower Kinnickinnic River. The Kinnickinnic River is designated as a premier cold-water trout fishery, and is one of only a few in this category in Wisconsin. The hydroelectric dams at River Falls bisect the Kinnickinnic River into high quality cold-water trout fisheries upstream and downstream, with a marginal warm-water fishery in the vicinity of the dams.

COMMENTS ON SCOPING AND STUDIES

As mentioned above, and pursuant to Section 10(j) of the FPA, the FWS is concerned with the adequate and equitable protection of fish and wildlife resources in relation to the presence and operation of the River Falls Hydroelectric Project. In particular, the FWS is concerned with how the operation and maintenance of the project may impact fish and wildlife resources in the areas upstream and downstream of the dams.

Based on information provided in the PAD, the FWS is concerned with reports that hydropower manipulations may cause daily (and sometimes hourly) flow changes downstream of the dams. These daily manipulations were suggested to potentially result in a 5-10 percent fluctuation in the downstream flow. In addition to fluctuations in flow, it was mentioned at the public meeting, and in communications with local stakeholders, that the impoundments created by the dams may increase water temperature downstream, potentially impacting the delicate cold-water fishery.

Based on these comments, the information provided in the PAD, and concerns raised by local stakeholders, the FWS recommends the following studies to further evaluate the continued operation of this hydroelectric project.

Bathymetry, Sediment, and Aquatic Habitat Survey

To develop a baseline by which to effectively assess impacts of hydroelectric operations on the upstream and downstream environment, it is recommended that the applicant conduct an aquatic habitat and bathymetry survey in the project area. It is also recommended that the applicant conduct a benthic sediment survey within the impoundments to determine the quality and composition of the substrate. The purpose of this survey would be to help the Agencies determine the quantity and quality of aquatic habitat in the area, including the areas immediately upstream and downstream of the dams. Information gathered could be used to determine the rate of sedimentation in the impoundments and the suitability of habitat to native fish and mussel species. The applicant should work with the FWS to develop survey parameters prior to implementation.

Hydrology Study

There appears to be little information on how the flow of the river is impacted by the dams, including sediment transport and current reservoir capacity. In addition to information gathered by surveying the current benthic environment, it is recommended that the applicant analyze sediment transport through the project and quantify the sediment that has accumulated in the

dams impoundments. Also, it is recommended that the applicant verify compliance with the run-of-river condition, which is required by Article 402 of the current project license.

To better understand how the dams impact this high quality river system, both upstream and downstream, it is important to know how water and sediment travel through the system. Run-of-river condition is necessary to mimic the natural flow regime, which is critical to the biotic environment downstream (e.g., mussels and spawning fish). In addition, understanding sediment loading in the river will help to determine if the impoundments are starving the system by trapping these sediments above the dams. Sediment trapping can reduce nutrient transport downstream; impacting the downstream biota and creating nutrient sinks in the impoundments. These sediment and nutrient sinks can create eutrophication and can add to the problem of downstream thermal pollution, which is a concern regarding the status of the Kinnickinnic River as a cold-water trout fishery. The applicant should work with the FWS and other stakeholders to develop study parameters prior to implementation.

Water Quality and Temperature Study

There is concern regarding the water quality and temperature impacts from the impoundments created by the dams. To better understand how these impoundments impact the upstream and downstream river system, it is recommended that the applicant conduct a water quality study, including temperature monitoring. The purpose of this study is to determine how project operation may impact the aquatic environment in the Kinnickinnic River. As mentioned in the PAD, the Kinnickinnic River is a high quality, Class I trout fishery and is considered a large-scale Priority Watershed project through the Wisconsin Nonpoint Source Water Pollution Abatement Program. Because of this distinction, it is important for the applicant to fully assess how the hydroelectric project may impact the quality of the Kinnickinnic River. The applicant should work with stakeholders to develop study parameters prior to implementation.

Fish and Mussel Survey

It is recommended that the applicant conduct an updated fish and mussel survey in the project area, including both impoundments and river adjacent to the project. Previous watershed plans and studies cited in the PAD have identified likely and potential impacts to the excellent cold-water fishery found in the Kinnickinnic River outside the project area. The rest of the river is a Class I trout stream while the impoundments have created a limited warm-water fishery and raise downstream water temperatures. A fisheries and freshwater mussel survey should be conducted to inventory the fish and mussels of the two impoundments, as well as upstream and downstream, to establish the conditions, differences, and likely impacts of the project on injury or mortality, assemblage quality, and recruitment to the impoundments and the river.

In addition to these comments, the FWS concurs with comments provided by the Kinnickinnic River Land Trust, Kiap-Tu-Wish Chapter of Trout Unlimited, River Alliance of Wisconsin, Wisconsin DNR, and National Park Service. We recommend that the applicant schedule a meeting with the agencies and stakeholders to discuss specific parameters for the proposed studies.

We appreciate having the opportunity to provide these comments and recommendations. For further coordination on matters related to fish and wildlife resources, 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 Troup Unlimited, Hudson, WI
David Fodroczi, Kinnickinnic River Land Trust, River Falls, WI



KINNICKINNIC
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May 20, 2014

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

RE: River Falls Hydroelectric Project, FERC Project No. P-10489-013
Preliminary Application Document (PAD) Comments and Study Requests

Dear Mr. French:

On behalf of the Kinnickinnic River Land Trust (KRLT), thank you for the opportunity to participate in the relicensing process for the City of River Falls hydroelectric project, FERC Project P-10489. In response to your public notice to FERC Secretary Kimberly Bose dated March 4, 2014, several representatives of KRLT attended the project informational session on March 17th, as well as the public meeting and site visit on March 24th. We have also reviewed the Preliminary Application Document (PAD) filed with FERC by the City of River Falls on November 27, 2013. Based on our review of the PAD and our participation in the project meetings, we offer the following comments on the PAD and recommendations for studies.

The KRLT is a 501(c)(3) private, nonprofit conservation organization located in River Falls. Our mission is "to work with the community to conserve and protect the beauty and health of the Kinnickinnic River and its watershed". Therefore, we will focus our comments and recommendations on project issues related to the health and beauty of the river and watershed.

Preliminary Application Document (PAD)

Although the information in the PAD is generally accurate, the document is very brief and provides few specifics about project conditions and impacts. Information in Section 2.0 about the project location, facilities and operation is a good summary of those features, but the information in Section 3.0 about the existing environment and resource impacts is largely generalized to the entire Kinnickinnic River and watershed with few specifics about the project area and impacts of the project itself. The same is true of Section 4.0 dealing with preliminary issues and studies list. The issues identified and the studies and plans listed cover the entire City or watershed with little, if any, review of the project and project area.



We also reached similar conclusions about the appendices included with the PAD. The project documents including maps, drawings, transmission lines and license are accurate and specific to the project. However, the appendices on water resources and environmental review are taken from regional or watershed plans that have little content specific to the project or project area. The one exception is Appendix F, the 1998 *Kinnickinnic River Priority Watershed Surface Water Resource Appraisal Report*. That report identifies project impacts on stream flow, water temperatures, sedimentation, turbidity, eutrophic conditions and related impacts on fisheries. However, the PAD does not identify any studies of these significant impacts that have been conducted by the licensee that are specific to the project area and its relationship to upstream and downstream conditions.

Study Requests

Given the general lack of information about conditions and impacts of the project on the health and beauty of the Kinnickinnic River, we respectfully request that the City of River Falls undertake a number of studies to document conditions of the project area and related impacts on the project area and affected upstream and downstream segments of the Kinnickinnic River. These studies should address conditions and impacts related to water quality, hydrology and geology, fish and aquatic species, plant communities, wildlife and aesthetics. The KRLT expects that the City of River Falls will work collaboratively with the resource agencies, participating stakeholders and other qualified professionals to develop appropriate study designs, methodologies, analyses and interpretation for the project, project area and affected stream reaches.

1. Water Resources – Previous watershed plans and studies cited in the PAD have identified a number of water resource conditions likely impacted by the dams and their impoundments, including but not limited to, water levels, stream flows, water temperatures, water chemistry, sediments, pollutants and turbidity. A thorough water resources study of the project area should be completed to benchmark data on these issues where it does not exist or compile and analyze trend data where it is available. The study should determine and document how impacts to these water quality features are affecting the Kinnickinnic River for use by humans, aquatic life and wildlife.
2. Hydrology – The dams and their impoundments have been in place for over 100 years, but there appears to be little information available about such hydrologic conditions and impacts regarding sediments, sediment transport, reservoir capacity, flow regimes and any resulting erosion. The volume, composition and mobility of sediments should be documented for long term management of the sediments and their potential impacts on downstream hydrology and water quality. Available data should also be presented and analyzed to verify the licensee’s maintenance of “run-of-river” flows during the current license period and propose any operational adjustments needed to do so.
3. Aquatic Communities - Previous watershed plans and studies cited in the PAD have also identified likely and potential impacts to the excellent cold water fishery found in the Kinnickinnic River outside the project area. The rest of the river is a Class I trout stream while the impoundments have limited warm water fisheries and raise downstream water temperatures. A study should be conducted to inventory the fish, macroinvertebrates and

aquatic vegetation of the two impoundments, as well as upstream and downstream, to establish the conditions, differences and likely impacts of the project on injury or mortality, rearing and spawning habitat, fishery composition and food availability in the impoundments and the affected stream reaches.

4. Plant Communities – The project’s impoundments have likely caused significant changes to the abundance and community composition of both aquatic and riparian plants. Both types of plant communities should be inventoried in the project area to identify any special status plants and to establish existing conditions and differences with upstream and downstream plant communities. Special attention should be given to identifying the extent and location of NR40 listed invasive species to develop management strategies for control to limit the spread of invasive species beyond the project area.
5. Wildlife – The impoundment of water and changes in water flows associated with the dams can have varying impacts on breeding and feeding habitats for many species of birds, amphibians and bats. Wildlife should be inventoried in the project area to identify any special status species and to establish existing conditions and differences with upstream and downstream wildlife and impacts to related habitat.
6. Aesthetics – Important elements of the Kinnickinnic River and its watershed that greatly appeal to residents and visitors alike are the sights and sounds of diverse landscapes ranging from gently rolling and wooded farmland to towering forested limestone bluffs. The Kinnickinnic River is a thread of flowing water that connects this variable landscape with sights and sounds of its own.

The dam structures, their accessory buildings and the impoundments with wider, quiet waters represent a notable contrast of the project area to the sights and sounds of the rest of the river and watershed. Some would argue that the human structures and their resultant changes to the river have diminished the scenic integrity of the project area. However, given the longstanding presence of the dams and impoundments, nobody is alive who knows how the project area looked without them.

We can only imagine what the view and sound would be with bedrock falls and continuous moving water through the project area. There is apparent interest throughout the community to “see” how the project area would look and feel with the original landscape absent the dams and impoundments. In our expanding virtual world, we suggest a visualization effort at some level, by sketch, photo or video means, to blend available historic photos with the view of today to help the community understand how it looked or could look.

Conclusion

Thank you again for the opportunity to review and comment on the PAD and request studies for the relicensing process. Based on the comments of City staff at the March 24th public meeting, we look forward to participating in study design, execution and implementation. If you have any questions about our comments and recommendations, please contact me at 715-425-5738 or dave@kinniriver.org.

Sincerely,



David Fodroczi
Executive Director

pc: Secretary Kimberly Bose, Federal Energy Regulatory Commission
Nicholas Utrup, U.S. Fish & Wildlife Service, Bloomington, MN
Randy Thoreson, National Park Service, St. Paul, MN
Cheryl Laatsch, Wisconsin Department of Natural Resources, Horicon, WI
Denny Caneff, Wisconsin River Alliance, Madison, WI
Gary Horvath, Kiap-TU-Wish Chapter, Trout Unlimited, River Falls, WI
Keith Rodli, Friends of the Kinni, River Falls, WI

United States Department of the Interior
National Park Service
Midwest Region

Rivers, Trails and Conservation Assistance Program & Hydro
111 East Kellogg Boulevard Suite 105
St. Paul, Minnesota 55101-1288

May 20, 2014

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

re: Comments on PAD and Study Requests, River Falls Hydroelectric Project, FERC Project
No. 10489, Kinnickinnic River, Pierce County, Wisconsin

Dear Mr. French,

The National Park Service (NPS) has reviewed the Pre-Application Document (PAD) and attended the Joint Meeting: First Stage Consultation for the relicensing of a Federal Energy Regulatory Commission license on March 17, 2014 in River Falls, Wisconsin. In addition, the NPS has undertaken walking tours of the area, met with City Staff in relation to the new FERC Form 80, and researched the history of the subject Dam(s) operation. The City is commended on the open nature of the discussions and willingness to work with and learn not only the new Form 80 but also to hear comments and input on the overall relicensing process.

In accordance with 18 CFR, Section 16.8(b)(5), the NPS is filing these comments no later than 60 days after the joint meeting held under 18 CFR, Section 16.8(b)(3). Our Authority for Review, General Comments, Comments on the PAD and a Request For Study entitled "Recreation Study" follow.

AUTHORITY FOR REVIEW

The NPS should be consulted on all hydrokinetic projects, not just those with the potential to affect units of the National Park System. Regulations created pursuant to the Federal Power Act, as amended, require consultation with the NPS and other resource agencies (18 C.F.R. § 4.38(a) and 18 C.F.R. § 5.1(d)). The NPS provides technical assistance about outdoor recreation resources pursuant to the Outdoor Recreation Act of 1963 (16 U.S.C. § 4601-1), the NPS Organic Act (16 U.S.C. § 1 *et seq.*), the Wild and Scenic Rivers Act of 1968 (Public Law 90-542), and the National Trails System Act of 1968 (16 U.S.C. § 1246(a)).

GENERAL COMMENTS

The River Falls Hydroelectric Project consists of two hydroelectric dams: (1) Upper facilities with; (a) a 140-foot-long and 32-foot-high concrete dam; (b) a 15.5-acre reservoir with an original storage capacity of 142.7 acre-feet; (c) an 80-foot-long by 6-foot diameter penstock; (d) a powerhouse containing one 250 kW generator, and (2) Lower Facilities with; (a) a 110-foot-long and 16.5-foot-high concrete dam located approximately 0.5 mile downstream of the upper dam; (b) a 15.4 acre reservoir with an original storage capacity of 37 acre-feet; and (c) a powerhouse containing one 125 kW generating unit; for a combined total installed generating capacity of 375 kW.

A unique feature of this project is its proximity to the high quality cold-water trout fisheries of the Upper and Lower Kinnickinnic River. The Kinnickinnic River is designated as a premier cold-water trout fishery, and is one of only a few in this category in Wisconsin. The hydroelectric dams at River Falls bisect the Kinnickinnic River into high quality cold-water trout fisheries upstream and downstream, with a marginal warm-water fishery in the vicinity of the dams.

The main area of interests for the NPS in relation to Hydro projects include Recreation, Land Use and Aesthetics. Of these three, and one in which a Study Request is submitted by the NPS, is that of Recreation. This topic is felt to be of importance both currently and in the future in relation to use and opportunities of the Project area, Kinnickinnic River, shoreline and nearby community Trails, Parks, and other recreational interests. The other two topical areas, Land Use and Aesthetics, are felt being covered by the public and special Interests Groups that are submitting comments and requests as part of this FERC process. It is also noted that one Interest Group in Particular, Friends of the Kinni, has highlighted “Recreation” as also a special topic with a Requested Study.

COMMENTS ON THE PAD

The NPS has reviewed the PAD for the River Falls Hydroelectric Project dated November 27, 2013. Following are comments related to certain portions of that Document.

Section 3.5 “Recreation and Land Use”

This Section of the PAD is very short, general in nature and does not cover the research, extent/depth, and existing as well as future recreation interests and opportunities related to the Project, Location Area and River Falls as a Community. There is an opportunity, as part of the FERC process, to further study and analyze “Recreation” both as an important element of the Kinni River Corridor and also as this area relates to the public use enjoyment now and in the future. Other than stating simply in the PAD that there are “abundant opportunities for recreation with the Project Area, analysis and study are felt required to make determinations on how

recreation opportunities and assets are used and could be made further available through Project amenities and development. Simple reference to the 2009 River Falls Park Inventory in Appendix H of the PAD is not felt adequate in this regard (This more than 5 year old study does not recognize current recreation interests and demands nor physical attributes that recreation public facilities and trails can provide). Besides overall Community public interests, the location of the University of River Falls and, in particular, the South Fork of the Kinnickinnic River further substantiates the need for “Recreation” research, summaries, and opportunities. Simply stated, the PAD does not cover this topic adequately to make those decisions and recommendations for the good of people using and enjoying this area.

Section 4.0 Preliminary Issues and Studies List

Under “Additional resource management plans” the River Falls Park Inventory, 2009 is listed. This document is somewhat outdated in terms of current conditions and needs and further study and analysis is felt needed in relation to the subject Hydro Project and its location within the River Falls Community. No other references or current studies are noted in the List.

REQUEST FOR STUDY entitled “RECREATION STUDY” (attachment)

Based on the general nature of “Recreation” description and analysis in the PAD and the need to further research and analyze this topic in relation to the subject FERC relicensing effort, the NPS is requesting that a “Recreation Study” be undertaken. Beginning on the following page, as an Attachment, is the rationale for this request following FERC criteria.

In addition to these comments, the NPS has reviewed and substantially concurs with comments provided by the Kinnickinnic River Land Trust, Kiap-TU-Wish Chapter of Trout Unlimited, Wisconsin DNR, River Alliance of Wisconsin (Note: NPS is interested in the researching and evaluating the existence or removal of the Hydro Dams through a cost/benefit analysis type approach), and the U.S Fish and Wildlife Service. Please feel free to contact me at randy_thoreson@nps.gov or 651-293-8450 if you have any questions pertaining to this letter and Study Request.

Sincerely,

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

Attachment

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

Attachment-
NPS Requested Study

Recreation Study

The following study request addresses each of the seven study criteria as required in 18 C.F.R. 5.9(b)

5.9(b)(1) – *Describe the goals and objectives of each study proposal and information to be Obtained.*

The goal of the study is to determine the existing use and demand for recreational facilities provided at the following areas:

- 1) Defined and Project Area of the River Falls Hydroelectric Project (P-10489).

Included is the two hydroelectric dams, Kinnickinnic Riverway and associated areas. Further defined is the Upper facilities that includes the Dam area itself and associated operational powerhouse structures, a 15.5-acre reservoir, and recreational use areas bordering and along both the reservoir and Riverway. (note: The reservoir should be considered for recreational analysis in terms of fishing, wildlife viewing and water activities). Also included is the Lower Facilities with a concrete dam and powerhouse located approximately 0.5 mile downstream of the upper dam, a 15.4 acre reservoir, and recreational use areas bordering and along both the reservoir and Riverway. (note: This reservoir should also be considered for recreational analysis in terms of fishing, wildlife viewing and water activities).

- 2) The impacted Project Area of the River Falls Hydroelectric Project (P-10489).

The impacted Project Area of River Falls is also felt to be important in terms of a Recreation Study. Although more loosely defined (further definition can be incorporated in the Study), both the River Falls Downtown and Residential areas are located in and along the Project Corridor. In addition, the University of Wisconsin/River Falls is located in close proximity to the Dam(s) areas and, in fact, the South Fork of the Kinnickinnic River flows along the edge of the Campus. Consideration is felt warranted for existing and future recreational users on Trails, pathways, fishing areas, parks and general viewing areas.

The objectives of the study are to:

- 1) Quantify existing recreation use levels at all locations identified above.

- 2) Document the types of recreational use occurring by season at each location.
- 3) Identify user perceptions regarding the operation and management of outdoor recreation facilities at each location.
- 4) Assess the impact of project operations on recreation and experiences.
- 5) Document public awareness of existing recreation facilities.
- 6) Identify potential measures to alleviate any negative impacts as well as to enhance recreational opportunities.
- 7) Use the information and methodologies for the Recreation Study for the completion and submittal of new FERC Form 80.
- 8) Assist in the development of a Recreation Plan for the project.

5.9(b)(2) – *If applicable, explain the relevant resource management goals of the agencies or Indian tribes with jurisdiction over the resource to be studied.*

Not Applicable

5.9(b)(3) – *If the requester is not a resource agency, explain any relevant public interest considerations in regard to the proposed study.*

Although the NPS is a resource agency in terms of public interests in regard to recreation, it is important to note the following:

Sections 4(e) and 10(a) of the Federal Power Act require the Commission (FERC) to give equal consideration to all uses of the waterway on which a project is located. When reviewing a proposed action (such as the subject relicensing project), FERC must consider the environmental, recreational, fish and wildlife, and other non-developmental values of the project, as well as power and developmental values.

As heard and noted at the Joint Meeting: First Stage Consultation for the relicensing of a Federal Energy Regulatory Commission license on March 17, 2014, a number of citizens and Interest Groups expressed a great deal of interest in Recreation both on and along the Kinnickinnic Riverway, Corridor, and associated Park areas and Trails. In addition, a great deal of discussion and media coverage has surrounded the interests by some people and groups in removal of the Dams, Kinnickinnic Falls restoration and new and expanded recreational opportunities. A Recreation Study should look at, analyze and bring forth the effects and influences of such scenarios.

5.9(b)(4) – *Describe existing information concerning the subject of the study proposal, and the need for additional information.*

It is noted that the City of River Falls, as the licensee, did not submit a Form 80 the last cycle of FERC guidelines. As such, a great deal of recreational inventory, user studies, and recreation facilities opportunities and capacities are missing. It is suggested that the subject requested Recreation Study will work toward the gathering of such information not only for the new Form 80 but also for the good and benefit of a workable and usable Recreation Plan for the Project.

Reference was made in the PAD of a River Falls Park Inventory in 2009. This inventory is out of date and can be amended and added to as part of this subject Recreation Study. In addition information can be obtained through the 2011-2016 Wisconsin Statewide Comprehensive Outdoor Recreation Plan (WI SCORP). Also, it is noted that in 2013, the City of River Falls contracted for a National Citizen Survey. Results of this Survey can be used to assess citizen interests in public amenities such as trails, parks, wildlife viewing, fishing, natural areas, etc..

The subject Recreation Study can work towards the analysis and recognition of the River Falls Community in the interests of recreation both within and along the Project area. Without such

5.9(b)(5) – Explain any nexus between project operations and effects (direct, indirect, and/or cumulative) on the resource to be studied, how the study results would inform the development of license requirements.

To be clear, the NPS feels the important Kinnickinnic River, Corridor and River Falls Community, as it relates to this precious and unique system, is an important resource to be studied in terms of recreational use and opportunities. It is felt that a strong nexus can be drawn between citizens and visitors with how they experience and use the Riverway Area, an area influenced by the two Dams, reservoirs and associated features. Glen Park is one example where River Falls has devoted a great deal of time and effort to make this “Community Recreation Feature” an important element to the overall recreational enjoyment of the River Falls public. The area is clearly influenced by the existing dams and any measures (including studying removal as suggested by some) will influence existing and future recreational experiences. The Recreation Study results will not only help in Form 80 but also play a great role in a usable and effective Recreation Plan for the Project. The whole suite of other requested Studies (ie Water Resources, Land Use, Aesthetics, etc.) will work together in concert with the Recreation Study to guide and assist the City in operations and Project decisions as part of the relicensing process.

5.9(b)(6) – Explain how any proposed study methodology (including any preferred data collection and analysis techniques, or objectively quantified information, and a schedule including appropriate field season(s) and the duration) is consistent with generally accepted practice in the scientific community or, as appropriate, considers relevant tribal values and knowledge.

A good recreational survey(s) shall “determine the public awareness, usage, and demand of the project’s existing recreational facilities to determine if potential improvements are needed.” Various methods can be employed to carry out such a survey(s). One would be mechanical counters at trails, parks and public use and viewing areas. Such counters can be installed over a period of several months to capture seasonal variations.

In addition to mechanical counts, a visitor intercept (in person) study could be conducted in order to determine use patterns at each recreational facility (ie along a trail or park area). Similar to mechanical counters, interviews should be conducted over a number of months to capture seasonality.

Somewhat easier and more manageable in some regards, to assess public awareness, would be to conduct a telephone or mail survey of potential users with the Kinnickinnic Riverway area and, maybe, River Falls Community as a whole. A one page questionnaire would inform the City regarding public awareness of existing recreational facilities and provide the opportunity to gather information from former users and potential users. Such a method would also help to assess and evaluate future demands and possible additions to recreational facilities and networks.

In all cases, River Falls has the benefit of having the University of River Falls located within the community. Why not ask for assistance from campus classes, Instructors, and student programs in this endeavor.

5.9(b)(7) – Describe consideration of level of effort and cost, as applicable, and why any proposed alternative studies would not be sufficient to meet the stated information needs.

Putting a specific price for a Recreation Study as requested is difficult. Many factors would come into play in terms of City staff capabilities, request for assistance from the University of Wisconsin as suggested, or consultants (or a combination of some or all). Elements would be research, data gathering, inventory, analysis, reasonable alternatives and possible design scenarios and Study recommendations. It would be reasonable to assume, given assistance possibilities, that a cost of less than \$20,000 is possible. Further scoping in a detailed Recreation Study outline is suggested. Such an outline would then dictate degree and extent of specific costs. – money well spent for the existing and future recreational interests of River Falls and the subject relicensing Project/Process. No alternative studies are suggested.

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May 20, 2014

Mr. Brian Hatch
Hydroelectric Facility Operator
River Falls Municipal Utilities
City of River Falls
222 Lewis Street, Suite 202
River Falls, WI 54022

Re: *STAGE 1 CONSULTATION*: River Falls Hydroelectric Project (375 Kilowatt),
Kinnickinnic River, Pierce County, WI FERC Project No. 10489

Dear Mr. Hatch:

The River Alliance of Wisconsin herewith submits comments on *REQUEST FOR STUDIES* and *PRE-APPLICATION DOCUMENT (PAD)* for the referenced hydroelectric (hydro) project. The River Falls Hydro Project consists of two dams on the Kinnickinnic River: Junction Falls Dam, which lies in the City of River Falls, and the Powell Falls Dam, located about 0.5 miles downstream. Junction Falls Dam impounds Lake George, a reservoir with a surface area of 16 acres. Powell Falls Dam impounds Lake Louise, a reservoir with a surface area of 15.4 acres.

Pursuant to Section 4(e) of the Federal Power Act, the Federal Energy Regulatory Commission (FERC) must consider the protection of environmental resources and enhancement of recreational facilities when considering hydro licensing decisions. Further, the FERC licensing process for hydro projects is a public process. Accordingly, the River Alliance participates in hydro relicensing proceedings as a private, non-governmental organization. Through the relicensing process, the River Alliance advocates for river restoration, protection, and enhancement of fish and wildlife habitat, and enhancement of recreational resources for rivers that are within and contiguous to hydro project boundaries.

RELICENSING STUDIES

An important component of the Application for License (AL) is a thorough description of the current condition and character of the aquatic and terrestrial environment within the project boundary. To that end, the River Alliance recommends that the Licensee (City of River Falls) and/or their Consultant/s conduct the following environmental studies during Stage 2 of relicensing.

1) **Evaluate the merits of decommissioning the project and removing the hydro dams**

We note that there is considerable local interest in evaluating the cost and environmental impacts of removing both dams that comprise the River Falls Hydro Project. We recommend that the

Licensee conduct a cost/benefit study to remove the dams. We believe the study should include, but not necessarily be limited to, the following components:

- Characterize the sediment in each flowage in terms of substrate type, how much has accumulated, and disposal options, including leaving the material in place and stabilizing it.
- Conduct sediment contaminant sampling to determine what contaminants, if any, are bound in the sediment. A qualified contractor and state-certified laboratory should conduct the chemical analysis to ensure credible results. Common contaminants of interest include PCBs and other related toxic organic compounds, lead, and mercury. We suggest you consult with the Wisconsin DNR for a complete list of contaminants of concern.
- Determine the cost of physically removing the dams and disposing the concrete and other debris in an environmentally acceptable site. As a part of this determination, elucidate the public funding options for dam removal, including two grant programs managed by the Wisconsin DNR for municipalities facing dam removal or repair.
- Estimate and compare the cost of removing the dams with the value of the energy produced over a 30-year period of the new license. The economic evaluation should include the cost of relicensing studies and other related costs; estimated cost of project operation and maintenance; and administrative costs to implement the post-license compliance plans in the anticipated articles of the new license.

Rationale. The River Alliance advocates removal of dams, and the attendant benefits to rivers, when the life of a dam has come to its useful end. Dams are an artificial structure on a river and profoundly affect its free-flowing nature, its health and ecology. Dams block the free passage of fish, including lake sturgeon, walleye, and smallmouth bass; these fish attempt to move seasonally several miles upstream and downstream in a river to spawning, foraging, and wintering habitats. Mussel species can also be adversely affected, as their distribution depends on fish movements. Immature mussels called glochidia attach to fish and are thus transported to other habitats providing mussel dispersal in the river. Another effect of dams is how they increase water temperature. Water temperatures often warm in the impoundments above ambient water temperatures in the free flowing river. This can adversely affect cool water temperatures required by the brook and brown trout and exclude or limit their ability to thrive in sections of the Kinnickinnic River.

Removal of the dams would eliminate many relicensing costs, not to mention the long-term cost of maintaining the dams. Removal of the dams would restore waterfalls within the city limits which could be a treasure enjoyed by residents and visitors alike. The City could market the falls as a tourist attraction and bring tourist dollars to the area. Given there is already a park located on the Lake Louise impoundment, the City might consider the benefits of installing a

boat landing at the park and allow paddlesports enthusiasts access to the entire lower Kinnickinnic.

The natural riverine ecology of the Kinnickinnic River would, over time, be restored to its near original river condition. Exposure of the falls from dam removal would complement nicely the existing Kinnickinnic River State Park. A trail along the falls would greatly enhance the aesthetic experience for viewers.

If you, as Licensee, decide to decommission the project and remove the dams, a detailed *Dam Removal Plan* would need to be developed that incorporates concerns of the stakeholders during the FERC's hydro project decommissioning process.

We acknowledge that should the City, as Licensee, determine that dam removal is a viable option, the hydro relicensing process would shift to a decommissioning process involving FERC, and a separate set of regulatory processes involving the Wisconsin DNR. With our history in dam removal processes, we would be pleased to assist the City in its pursuit of that option, if indeed during the re-licensing process the City opts for that path.

- 2) **Fishery survey.** In consultation with the Wisconsin DNR, conduct a fish survey of the project area. The study area should include both flowages, tailwaters of the dams, and the lower Kinnickinnic River.

Rationale: Current and well-defined fishery information is needed by the Wisconsin DNR to make informed decisions about management of the fishery and to evaluate potential effects of project operations on fishery resources. The plan of study should use standard fish assessment techniques endorsed by DNR fishery biologists. The parameters for the fish assessment study should be developed through discussions with the DNR.

- 3) **Mussel survey.** In consultation with the Wisconsin DNR and U.S. Fish and Wildlife Service (FWS), update the mussel information in the project area.

Rationale: Mussels are an important component of a river system and are sensitive to changes in flow discharge in the tailwater and to water level fluctuations in reservoirs. Mussels are not very mobile and can be easily adversely affected by hydro operations. There is also good reason to identify any threatened or endangered mussel species, as listed by the state or federal government, that may occur in the project area in order that, if found, protective measures can be developed for them through project operations. The parameters for study should be developed through discussions with mussel specialists from the Wisconsin DNR and FWS.

- 4) **Water quality sampling.** In consultation with the Wisconsin DNR, conduct water quality monitoring in Lake George, Lake Louise, and in the tailwater of the Powell Falls

dam to ensure that the project is being operated in compliance with State water quality standards. Parameters should include dissolved oxygen, temperature, and other parameters as deemed necessary by the DNR.

Rationale. Hydro projects in Wisconsin must be operated within state water quality standards pursuant to state water quality certification requirements of Section 401 of the Clean Water Act, 1977, as amended. Good water quality, especially appropriate dissolved oxygen and temperature levels, is critical to the incubation of fish eggs, survival and growth of fish and invertebrates, and survival of other aquatic life.

- 5) **Invasive species survey.** In consultation with the Wisconsin DNR, conduct an invasive species survey of the project area. The study area should include the terrestrial environment within the project boundary and in both flowages, tailwaters of the dams, and the lower Kinnickinnic River. The study should also include the implications on the spread or expansion of invasive species in the context of dam removal (i.e. what effect would removing the dams, positive or negative, have on the spread or control of invasives).

Rationale: Exotic species such as purple loosestrife, Eurasian watermilfoil, and curly-leaf pondweed are invasive exotic wetland plants which out-compete many other valuable wetland plants and can dominate the species composition of a wetland or aquatic macrophyte bed in a few years. Terrestrial exotics have the same pattern and can out-compete native vegetation as well. There is little food value for wildlife from purple loosestrife; accordingly, infestation of valuable wetlands by this plant is extremely undesirable and harmful. Eurasian watermilfoil and curly-leaf pondweed can rapidly cause aquatic weed problems and alter fish communities by providing too much refugia leading to overpopulation and/or growth stunting problems in the reservoirs and flowages. Likewise, zebra mussels can cause pronounced ecological changes in rivers and impoundments. In addition, zebra mussel infestation can severely reduce native mussel populations. Measures to control invasive species are limited, but progress in developing control measures such as use of beetles, weevils, and spot herbicide spraying is being made by ongoing research efforts.

- 6) **Wetland and aquatic plant survey.** In consultation with the Wisconsin DNR, conduct a wetland and aquatic macrophyte survey of the project area. The study area should include both flowages, tailwaters of the dams, and the lower Kinnickinnic River.

Rationale: Wetlands provide valuable feeding and brood habitat for numerous species of waterfowl and shorebirds and habitat for many mammal species as well (i.e., muskrat, mink). Wetlands provide nursery habitat for small fish and habitat for adults such as northern pike, muskellunge, largemouth bass, and bluegill. Wetlands provide a critical water quality function by filtering out sediment and pollutants that adhere to sediment before they enter the main river

or lake. An inventory of the current wetland types and aquatic plant species contained therein is necessary in order to protect and preserve them.

Comments on the Pre-Application Document (PAD)

We recommend that you, as licensee, develop more detailed information than what was provided in the PAD for inclusion in the Application for License (AL). Some of the following recommendations are made with the assumption that you seek to relicense the hydro project instead of decommissioning it. Along with information obtained through relicensing studies, please include a discussion on the items described below.

Hydro operations. The River Alliance will recommend that the hydro project continue to be operated in a run-of-river (ROR) mode such that instantaneous outflow from the hydro project closely approximates instantaneous inflow to the project. This type of operation will ensure that adequate flow is discharged from the dam and that water level fluctuations in the flowages will be minimal. In the AL please list the operating headwater band elevations you are proposing to operate in. To protect fish and wildlife habitat, we recommend that the project operate within a narrow headwater band, that is, a few inches above and below a normal headwater target elevation.

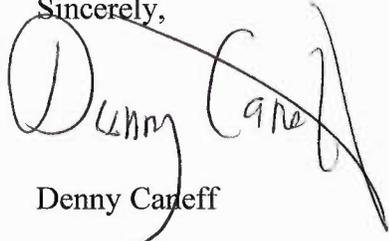
Rationale: A run-of-river mode of operation tends to stabilize environmental conditions considerably both upstream and downstream from the dam. Under ROR operation, the reservoir, tailwater, and downstream areas undergo changes in flow similar to an unimpounded river flowing under natural hydrological conditions, which are the conditions to which fish and other aquatic life have adapted. Habitat for fish and other aquatic life is not subjected to large, unnatural daily changes in flow that occur under a peaking mode. Consequently, a ROR mode of operation provides relatively dependable habitat conditions for fish and other aquatic life on a daily basis. Reducing fluctuations of riverine and reservoir water levels also minimizes adverse impacts to wetlands and shallow water and shoreline habitats important to fisheries, waterfowl, and water birds.

Recreational Facilities. In the AL, describe the existing recreational facilities and any proposed recreational improvements within the project boundary. Develop a Recreation Plan for implementation during post licensing (which could include likely changes or improvements to recreational potential should the dams be removed).

Project Economics. Include in the AL economic information on project worth and profitability. Estimate project costs for the next 30 years of a new license including operation and maintenance and the cost of any anticipated dam repairs.

If you have questions on our comments, please contact me at (608) 257-2424 (ext. 115). Also, please feel free to call our Hydro Consultant, Jim Fossum at (507) 691-0631.

Sincerely,

A handwritten signature in black ink that reads "Denny Careff". The signature is written in a cursive style with a large initial "D" and a long horizontal stroke extending to the right.

Denny Careff

Executive Director

cc: Ms. Kimberly Bose, Secretary, Federal Energy Regulatory Commission, Washington, D.C.
Nick Utrup, U.S. Fish and Wildlife Service, Bloomington, MN
Cheryl Laatsch, FERC Coordinator, Wisconsin DNR, Horicon, WI
Randall Thoreson, National Park Service, St. Paul, MN
Angie Tornes, National Park Service, Milwaukee, WI
Keith Rodii, Friends of the Kinni, River Falls, WI
Dave Fodroczi, Kinnickinnic River Land Trust, River Falls, WI
Jim Fossum, JDFossum Environmental Consulting, Winona, MN
Kent Johnson, Kiap-TU-Wish Chapter, Wisconsin Trout Unlimited

**STUDY REQUEST: ECONOMIC ANALYSIS OF THE BENEFITS AND
COSTS OF OPERATION AND MAINTENANCE -
CITY OF RIVER FALLS HYDROELECTRIC DAMS
FERC PROJECT NO. P-10489-013**

**To: Ray French, Management Analyst
City of River Falls
222 Lewis St.
River Falls, WI 54022
rfrench@rfcity.org**

**cc: Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
Via email, no hard copy**

Submitted by:

FRIENDS OF THE KINNI

Prepared on behalf of and by:

Robert Chambers
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Professional input from:

Barbara J. Steinhauser, CPA, CVA, Cr.FA
Blanski Peter Kronlage & Zoch, P.A.

and

Joel Toso, PE
Wenck Associates Inc

Questions and Comments to:

Keith Rodli
keithrodli@gmail.com
715 220 5116

Friends of the Kinni/May 2014
Study Request: Economic Analysis

INTRODUCTION

Friends of the Kinni is a broad based citizens group interested in the relicensing of the two City of River Falls dams and associated hydroelectric power stations located on the Kinnickinnic River. As part of the relicensing process a public meeting was held in River Falls on March 24, 2014. The City maintains an audio recording of this event.

One of the individuals who spoke at that meeting, Tony Stifter, made the following statement: "The day you install a dam is the day you make a commitment to remove the dam." Prior to any discussion of that eventuality (i.e., dam removal), it is important that the community and the City government have a full understanding of the various economic issues affecting the dams.. This three-phase study request calls for the utilization of independent third parties to examine the economic feasibility and performance of the operations and maintenance of the facilities - past, present and future.

After City staff has assembled all relevant data and has performed a first level review, a team of qualified accountants and engineers should follow this initial data collection and then undertake a detailed economic analysis of past performance and forecasted future performance. This is necessary to assure the community that all due diligence has been conducted on their behalf. The economic study that we propose will evaluate the capital, operational and maintenance costs of the dams and associated hydropower facilities, using standard Generally Accepted Accounting Principles (GAAP). Such an analysis, combined with other study results (including but not limited to recreation, environmental, aesthetic and community surveys regarding citizen values) will help to define a consensus of the best use of the Kinnickinnic watershed, as well as the profitability of the dams into the future.

The City's Pre-Application Document (PAD) asserts that the City's annual investment in maintaining and operating the Project is approximately \$35,000 and that over the course of the 30-year license, the net investment is estimated to be at least \$1,100,000. Other than this, the PAD has no mention of the economic impact of the two dams.

GOALS

1. Analyze the past profitability of the two dams, hydroelectric stations, and connections to the grid during the current license period (1988-2018). This would entail an accounting of all sources of revenue, all maintenance and operations costs, expenditure patterns, trends, cost drivers, and short and long term capital expenditures.
2. Establish baseline financial and quantitative standards for future operations of the dams and associated hydropower facilities that can be used on an annual basis to assess ongoing profits or losses, as well as adjustments to minimize losses.
3. Using baseline financial analysis data, and quantitative standards, determine the profitability and feasibility of owning, operating, maintaining and upgrading the hydroelectric facilities, including any and all appurtenances, and related and required equipment. Determine said profitability via development of a comprehensive economic model, approved by all stakeholders (including taxpayers and Electric Utility customers), that provides economic

Friends of the Kinni/May 2014
Study Request: Economic Analysis

- projections for the next 30 years license period and identifies all sources of revenue, all costs, all necessary and anticipated capital investments, and all maintenance and operation standards and costs, including the costs associated with maintaining the FERC license and costs of relicensing. This includes the costs of ensuring compliance with all license provisions, such as the required run-of-the-river operation.
4. Develop an accurate financial model that provides for successfully determining the costs and benefits of operating and maintaining the hydroelectric facility with regard to environmental costs and community benefits that become identified by other re-licensing studies.
 5. Establish an economic model for the costs associated with the removal of the dams, hydroelectric facilities, and related appurtenances. This model would also include any necessary remedial environmental actions, as well as benefits that arise from removal, such as aesthetic and recreational benefits, and the benefits and lower costs that may come with alternative co-generation of an equivalent amount of power from solar, or from energy savings through conservation programs.

Phase 1: Historical Financial Analysis

A. Analyze past profitability for the term of the current license.

Term: Because the facilities have been operating under an existing license, an economic review of the current license period is required to effectively establish a baseline for a project that has been using, and continues to use the Kinnickinnic River to generate electricity. Conduct a detailed assessment of cash flows and net profits analysis beginning with the onset of the current and expiring license. Include the costs of planning, designing, financing (both to the General Fund and Utility Fund), bonding, as well as construction and the renovations to all generating-related facilities, including substations and connections to the grid. This analysis is to be based on existing audited financial statements, 1988-present, and other accepted, historically accurate documents.

Trends and Variances: Throughout the evaluation of the net profits or losses analysis, identify the significant trends and variances that occur.

Included Costs: Balanced against annualized revenues, the following operating costs, at a minimum, must be evaluated:

- Insurance
- Maintenance and normal life-expectancy upgrade costs
- Maintenance and upgrade costs associated with connecting hydro-generated power to the grid for distribution (substations and switching)
- Dam maintenance
- Facility maintenance, including switching, penstocks, control gates, safety, and bluff stabilization

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- Remedial and environmental clean-up of impoundments, sediments, fuel facilities and galleries associated with diesel and natural gas generation
- Costs of inspections
- Cost of acquiring and maintaining existing license
- Costs associated with repairing Powell dam to normal capacity following lightning strike
- Labor costs, including management and labor, both direct and indirect
- Facility and equipment costs
- Cost of complying with license conditions (such as run-of-the-river operation)
- Capital expenditures
- Known environmental costs
- Public safety (fences, floats, etc)

Maintenance costs are viewed as a key element of the economic analysis. For that reason maintenance costs in the study should include dam and building structural maintenance, as well as routine items such as the cost of debris removal and maintenance of buildings, grounds and equipment. Additionally, long term and/or major maintenance costs need to be identified and evaluated relative to the current operating permit. (Example: an analysis of costs associated with automatic gates for controlling flow and otherwise complying with license provisions

B. Compare:

- Budgeted versus actual expenditures (planned and unplanned);
- Annualized capital operations and maintenance, using terms of not less than ten years and ideally fifteen years;
- Required expenditures versus discretionary expenditures.

C. Analyze kilowatt output per hour, week, or month (actual time unit to be determined) to establish necessary historical cash flow comparisons between income and expense. Correlate to purchase power agreements with various power providers. Relate to cost of power from alternative providers.

D. Compare cost/benefit to industry or peer groups and/or discreet facilities' historical data to determine past profitability and cost of operations against similar regional facilities.

Phase 2: Projected Cash Flow and Net Profitability Analysis

The City is in the business of providing electric power to the community. Therefore, a major benefit resulting from a completion of the proposed analysis is the ability to:

- understand the impact of revenue growth assumptions on net profit and cash flow assumptions by establishing detailed low and high range revenue projections;

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Study Request: Economic Analysis

- understand the influence of expenses (fixed and variable) and provide expense projections in detailed low and high range for the license period;
- understand capital outlays by identifying all anticipated costs necessary to keep the facilities functioning within the permit limits;
- produce a risk-model for costs that are unanticipated but likely to occur during the license period;
- understand and document the assumptions used in creating the economic model;
- itemize and understand all the risks and assumptions associated with the model as represented by quantifiable financial factors, qualitative natural environmental factors and factors imposed by the regulatory environment; and
- develop a comprehensive model that provides necessary guidance to all involved.

A. Projected net profitability per annum and for the 30 year license period.

Analyze actual financial results from Phase 1 using horizontal analysis, vertical analysis, ratio and common size analysis. The results of these analyses are necessary in order to compare profitability against industry norms. These are to be supplemented with interviews, industry research, other quantifiable and pertinent study results, approved or estimated and required community costs necessary to prepare the above.

In addition to including the known or documented costs resulting from Phase 1, the model should reflect the following:

- Licensing costs, including direct and indirect costs associated with staff and consultants
- Annual compliance costs
- Capital Improvement Costs, including, but not limited to the following known concerns:
 1. Bluff stabilization (Junction Falls dam).
 2. Switchgear and transmission line costs to connect to the grid as the substation becomes upgraded and the existing empty power plant becomes unnecessary.
 3. Renovations to the powerhouses, penstocks and buildings necessary to house the hydroelectric generating equipment.
- 4. Repair/replacement cost covering Powell Falls facility, which we believe has not been generating at capacity since 1994.
 5. Correction and blockage of major seepage. Prior FERC inspections have identified “seepage through a joint above the wasteway exit” on the Junction Falls dam, and “seepage through the cracks, spalls and the wall/bedrock interface” on the Powell dam. In addition, significant boils have been documented by the boil below the Junction Falls dam, boils which may not been previously recognized or repaired.
 6. Purchase and installation of the automatic equipment necessary to ensure compliance with a run-of-the-river permit at both dams.
 7. Necessary costs attributable to other studies identified as part of this relicensing process. For example, these may include environmental and recreational opportunities, such as pathways along the river.
 8. Life expectancy of the reservoirs as they continue to fill with silt; cost to dredge or otherwise keep the reservoirs sufficiently clear to allow economical hydro-generation.
- Planned-for capital investments associated with aging and similar structures.

Friends of the Kinni/May 2014
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- Routine maintenance costs, as referenced above, recognizing and documenting rates and costs for in-house and contracted work tasks.
- Long term maintenance costs, detailed as above.
- Decommissioning costs for both dams and the sequestering of adequate funds within the cash reserves of the City government to pay for the removal of both dams. (See Phase 3).

Based on historical data, establish cash flow projections and planned improvements projections for the above and maintenance schedules.

B. Prepare an analysis based on the above and compare to costs associated with purchasing an equivalent amount of power.

Phase 3. Decommissioning of the Dams

A. Develop a projected profitability model of economic performance of buying or co-generating if the dams have been removed.

B. Lost profits analysis at the utility level, at the residential level and at a commercial/industrial level. The results are needed in order to allow decision-makers and the community to understand the annual fiscal impact of the removal of the dams on the entire utility base, and the mean and median annual fiscal impacts on residential and commercial/industrial users.

C. Complete an analysis of the cost of decommissioning both dams.

D. Complete an analysis of the future economic value of the natural falls (without the two dams), including tourism potential.

SUMMARY

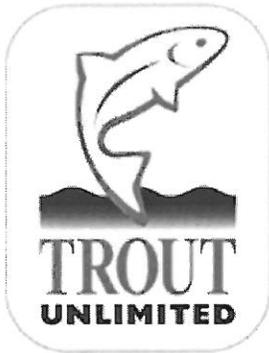
The required study will utilize existing and available information in the form of audits and other City or utility documents, DNR, and FERC records. The nexus of the proposed study is the provision of a comprehensive analysis of the economic impacts of the dams and hydro facilities on the community. Prior to entering into any future long-term commitment to pay for necessary upgrades, such as automatic flow gates necessary to maintain “run of river” operations, or replace equipment to restore or improve operations, the true benefits of those actions need to be known. The use of Generally Accepted Accounting Principles associated with the proposed forensic evaluation and projections, along with the application of approved engineering standards and practices, will provide the community with necessary documentation to move forward.

Friends of the Kinni respectfully proposes that the City of River Falls should plan for this proposed economic study as part of its budget planning process for the year 2015, with study consultants to begin work January 1, 2015, and be completed within 12 months.

FERC Project No. 10489-013-Wisconsin
City of River Falls Hydroelectric Project

Friends of the Kinni/May 2014
Study Request: Economic Analysis

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May 22, 2014

City of River Falls
c/o Mr. Ray French
222 Lewis Street,
River Falls, WI 54022

Via e-mail transmission only.
rfrench@rfcity.org

Re: Federal Energy Regulatory Commission relicensing of the River Falls Hydroelectric Project

Dear Mr. French:

My name is Henry Koltz, and I am the Chair of the Wisconsin Council of Trout Unlimited ("Wisconsin TU"). Wisconsin TU has over 5,000 members belonging to 21 chapters which themselves cover the entire geographic footprint of Wisconsin. Nationwide, Trout Unlimited has over 150,000 members.

Wisconsin TU's mission is to conserve, protect, and restore Wisconsin's coldwater fisheries and their watersheds. We accomplish our mission primarily through in-stream and riparian corridor restoration work, working with youth, and working with disabled United States Military Veterans.

We understand that the Kiap-TU-Wish chapter of Trout Unlimited has submitted a formal written request that additional studies be performed to determine the effect of the dams upon the Kinnickinnic River, its temperatures, fish populations, and other items. We understand that the request in question is to ensure that solid, science based data will exist and be available for review as part of the City of River Falls and the River Falls Municipal Utilities' FERC relicensing of the River Falls Hydroelectric Project.

Wisconsin TU supports the Kiap-TU-Wish Chapter's request. We believe that in order to make a sound, reasoned decision regarding the dams, and whether they should be relicensed, adequate data must be accumulated and reviewed as part of the relicensing process. Relicensing without such data would not adequately ensure the health of the stream, its inhabitants, and could potentially lead to adverse impacts upon not only the stream itself, but upon the economy that it creates.

Should you have any questions after reading the contents of this letter, please feel free to call me here at this office immediately. Thank you for your attention to this matter.

Very truly yours,

A handwritten signature in black ink, appearing to read 'H. Koltz', with a stylized flourish at the end.

Henry E. Koltz
Chair, Wisconsin TU



May 23, 2014

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

RE: Wisconsin Department of Natural Resources Comments on Preliminary Application Document (PAD) and Study Requests, Relicense Application for River Falls Hydroelectric Project P-10489, City of River Falls, Pierce County, Wisconsin

Dear Mr. French:

The Department appreciates the opportunity to participate in the relicensing of the River Falls P-10489 hydroelectric dams. As part of the Stage 1 Consultation process, we offer the following comments on the Preliminary Application Document (PAD), and recommendations for studies.

The purpose of the PAD is to document existing information and needed information as it relates to the existing environment and potential impacts of the project (including cumulative impacts). Our comments on the PAD and recommended studies should be used as a guide for the development of the draft license application.

GENERAL COMMENTS:

The PAD takes a broad view of the watershed, but does not discuss the current environment of the two dams, tail water areas, impoundments, and the project boundary; nor does it discuss the cumulative resource impacts. Available information can be obtained for a wide variety of regional, state, and federal resources. We encourage the applicant to work with the resource agencies, local governments, local interest groups, and the university to develop a robust Draft License Application that acknowledges all the resources within the project boundary, and considers the cumulative impact of the two hydroelectric dams.

INFORMATION AND STUDY REQUESTS:

The WDNR has limited information regarding natural resource information associated with the two hydroelectric dams and their impoundments. We are recommending the following studies be completed to better understand the direct and cumulative impacts the dams have on the environment:

General Information:

- In the PAD the Applicant states the "City has engaged with partners to conduct studies on the physical quality of the dams and the quality of the environmental resources." Please provide all correspondence related to this issue.

- A copy of the existing license was provided, but amendments and revisions to the original license were only partially included in the PAD. We request a comprehensive summary of all license conditions, including the original license and amendments. Additionally we request a comprehensive summary identifying how the licensee is monitoring compliance with the license.
- We request the applicant provide detailed descriptions and maps for the entire project area including; topographic maps of each flowage, description of the river basin and sub-basin, drainage basins, length of stream reaches; major land and water use in the project area; all dams and diversion structures in the basin or sub-basin, regardless of function; tributary rivers and streams, topography, land use.
- We request a written description of the visual characteristics of the lands and waters within the project boundary. Components of this description should include a description of the dams, natural water features, and other scenic attractions of the project and surrounding vicinity. Photographs representing the written descriptions should be provided.
- We request the following information be provided regarding wetlands, riparian zones, and littoral habitat; wetland locations, types, acres summary, acres per type; description of riparian zone, including total linear distance per water feature, types of use, description of vegetation; littoral habitat should be described, including total linear distance per water feature, types of use, and description of vegetation. Photographs should be provided for visual aid.

Operations, Flows, Water Levels: Historical and current information addressing the relationship between the hydro operations and water levels was not adequately discussed in the PAD. Understanding this relationship is critical to assessing direct and cumulative impacts to the resource.

- USGS gaging station is 4.8 miles downstream from Powell Falls Dam, at Hwy F. In order to understand flows, water levels, fluctuations, degree of impact, and compliance at the project, the applicant should install water level sensors in the river and impoundments and monitor compliance with run-of-river operations within the project boundaries. Water level sensors should be installed at three river locations including; 1) above both dams, 2) below the first dam but above the second and 3) below both dams.
- Provide any reports and data, along with a comprehensive summary of any flow data studies conducted by USGS or other agencies within the last 20 years. We reserve the right to require a formal flow study, pending review of provided data.
- Identify the gradient for the entire project area. Map the linear gradient through the stream thread.

- We request a summary of the projects generation, compliance and outflow records for the five years preceding the filing of the PAD. The summary should include the monthly minimum, mean, and maximum recorded flows in cubic feet per second of the stream or other body of water at the power plant intake or point of diversion, specifying any adjustments made for evaporation, leakage, minimum flow releases, or other reductions in available flow. The summary should also include a monthly flow duration curve indicating the period of record and the location of gauging station(s), including identification number(s), used in deriving the curve; and a specification of the critical stream flow used to determine the project's dependable capacity. Compliance records should include a summary of all non-compliance events and any associated correspondence.

Water Quality / Water Resources: Understanding the health of an aquatic ecosystem is an important part of assessing historical, current, and potential future impacts associated with the operations of the hydro dams, and the impoundments created by the dams. These studies are necessary to understand the relationship between the dam and the impoundments, and its impacts on the water quality throughout the project boundary.

- Water quality monitoring should be completed in both impoundments to document trophic conditions. Monitoring should follow DNR Lake monitoring protocol described in Wisconsin Consolidated Assessment and Listing Methodology (WISCALM, 2014). Data collection will include total phosphorus and chlorophyll *a* sampling, seechi disc readings and dissolved oxygen and temperature profiles. Sampling should be completed in summer for a two year period to assess trophic conditions and make an impairment determination.
- In addition to trophic condition monitoring bacteria sampling should be completed in both impoundments to determine if bacteria levels are a threat to human health. There is a large resident Canada goose population in the flowages and bacteria from their feces may be high enough to pose a threat to human health. Bacteria sampling should follow protocol identified in WDNR WISCALM guidance to determine the recreational threshold for beaches.
- As a result of watershed sedimentation, soft sediment profiling is needed from both flowages to understand the depth of soft sediments and scour potential. A bathymetric map showing the soft sediment profile and hard bed should be developed for both impoundments. In addition, sediment cores should be collected from both impoundments and analyzed for contaminants. WDNR should be consulted prior to sampling to recommend coring locations, the number of cores, and what chemical analysis is needed to address aquatic concerns and disposal issues.
- Summarize and evaluate thermal data collected at several sites on Kinnickinnic River and tributaries by Trout Unlimited for the past 5 years. Summaries and evaluation should include:

- 1) Develop a map showing exact temperature monitoring locations
 - 2) Temperature data at each site should be summarized from June 1 through August 31. The summary should be completed for each year for the past 5 years. Summary statistics should include maximum mean daily temperature, maximum summer temperature and July mean temperature.
 - 3) The temperature data should be summarized to evaluate the thermal effect of the impoundments individually and collectively on the Kinnickinnic River. Modeling should be completed to predict the future thermal impact of the impoundments (individually and collectively) on river temperatures below the impoundments. The modeling should incorporate temperature changes that would result from climatic change and increased development (storm water inputs) within the project boundaries. The assessment should include how current and future temperature regimes will affect the rivers ability to support a cold-water fishery.
 - 4) Additional temperature monitoring may need to be completed depending on Trout Unlimited site locations.
- Dissolved oxygen analytical data should be collected to document conditions in the Kinnickinnic River as it leaves each impoundment. Continuous dissolved oxygen monitors should be deployed upstream, between and below both impoundments. Frequency and duration for monitoring should be coordinated with the local interest groups, and the resource agencies.
 - Total phosphorus sampling should be completed in the Kinnickinnic River above and below both impoundments. The purpose to the monitoring is to evaluate total phosphorus concentrations entering and leaving the flowages. Growing season sampling should be completed monthly from May through October for one year following protocol described in WDNR WISCALM. WDNR should be consulted regarding exact sampling locations.
 - Macro invertebrate sampling should be completed at multiple locations on the Kinnickinnic River to assess current invertebrate health. Some sites have not been surveyed since the completion of the watershed appraisal in the mid 1990s. Samples should be collected at four existing stations including two sites upstream and two sites downstream from both impoundments. Samples should be collected from Main Street (Swims Station 10011492), Maple Street (SWIMS Station 10037539), near Glenn Park (Swims Station 10020720) and at the confluence with Rocky Branch (SWIMS Station 10011488). WDNR protocol should be followed for the collection and preservation of samples. Samples should be sent to a certified lab and taxonomy should be completed to genus and species level. The data should be summarized by calculating various invertebrate indexes including Hilsenhoff Biotic Index (HBI) and macro invertebrate Index of Biotic Integrity (MIBI).

Fishery: Fishery data is needed to update the species status and health of the fish community, address public information needs and determine if any impacts are occurring related to the hydroelectric dams.

- A fish community assessment within the two impoundments is needed. Data collection should include relative abundance estimates (Catch Per Unit Effort) for each fish species present. Length, weight and aging data should be collected for evaluating size distribution, age and growth estimates, and condition factors on game and pan fish populations. An attempt should be made to estimate rough fish abundance and biomass within each impoundment.
- Existing raw data regarding the health and population of the Kinnickinnic River trout fishery is available from a variety of sources. All of this information should be gathered, summarized, and analyzed. Analyses should include a historic perspective of the fish community, both upstream and downstream of the impoundments and in response to hydroelectric development and operations over time. Data should be reported for both fish community health using Coldwater Index of Biotic Integrity (IBI) and relative abundance (Electrofishing Catch Per Unit Effort) of trout species. If found insufficient, additional IBI work may be necessary.

Mussels: Mussels are a valuable resource to the aquatic regime of the river. They are sensitive to changes in sediment dispersal, temperature, flows, and velocity. The current status of mussels within the project boundary is unknown. Basic information is needed to assess the health of any existing mussel communities.

- Complete a qualitative mussel survey for the impoundments, the upstream and downstream reaches of the River, backwaters and tributaries, and directly downstream of the project boundary. This information is necessary to evaluate any existing mussel populations, their locations, habitat conditions, and health. Areas containing mussels should also have quantitative surveys conducted to enumerate those populations.

Invasive Species: Invasive species can cripple a healthy riverine environment. Adequate information needs to be obtained to determine the presence, species, abundance, etc. of invasive species within the project boundary. Management of invasive is crucial to a healthy eco-community.

- A baseline terrestrial and aquatic invasive species survey is needed for the entire project area, including tributaries and other connected waterways that may contribute to the risk of invasive species.
- Evaluate the effectiveness of river elevation, and dam operations to be barriers to aquatic invasive species in the presence or absence of the dams. The evaluation should include variations in river elevations including flood stage, spring runoff, and drought conditions.

Wildlife and Plants: Wildlife use is unknown within the project boundary. Information is necessary to understand if operations, improvements, water levels, and general health of the environment may be impacting the flora and fauna that uses the project boundary for their life cycle.

- Complete general wildlife and habitat use survey for the project areas. Focus on the floodplain forest areas, and bluff habitat, as these types of habitat are limited and very important. Habitat types should be mapped.
- Complete a formal Wisconsin Endangered Resources Review Request Form. Based on the results of the review, complete an assessment of available habitat for any species identified in the review.
- Complete a desktop assessment of the potential for rare plant to be located within the project boundary. Complete a rare plant survey on all public lands within the project boundary.
- Complete a comprehensive bird use survey, documenting potential habitat, foraging areas, migratory corridors, and nesting.

Recreation: Hydro operations, management of impoundments, water level changes, etc. can have a significant impact on recreational value. Adequate information is necessary to determine what impacts may be occurring from the hydro operations, and what recreational opportunities may be enhanced.

- A general recreational use survey is needed, include both existing and proposed use, including kayaking, canoeing, tubing, fishing, scenic viewing, fishing, walking, biking, etc. This information will provide up-to-date information on current and future recreational use within the project boundary.
- Provide a map that depicts the “River Falls Park Inventory” features in relation to the FERC project boundary. The map should include public boating access and other recreational features identified in the plan.

Erosion Control: Erosion may occur within the project boundary due to the changes in water levels and flows, operations, maintenance and repairs, etc. These actions can result in impacts to water quality. More information is needed to understand the relationship of the hydro operations and potential erosion.

- Provide a description of reservoir shorelines and stream banks, including photographs.
- Complete an assessment for potential erosion, mass soil movement, slumping, or other forms of bank instability, including identification of project facilities or operations that are known to or may cause these conditions.

The licensee should continue to work with the Wisconsin Department of Natural Resources to collect resource information, and develop study plans and protocols. If new information becomes available through the relicensing process, we reserve the rights to require additional studies to gather appropriate information.

Please direct all inquiries to the Project Managers:

Dan Helsel, Water Leader, (715) 284-1431, Daniel.helsel@wisconsin.gov

Cheryl Laatsch, FERC Coordinator, (920)387-7869, Cheryl.laatsch@wisconsin.gov

If you have any questions or comments regarding our recommendations, please contact me at 920-387-7869, or Cheryl.laatsch@wisconsin.gov. We look forward to working with you.

Regards,

A handwritten signature in black ink, appearing to read "Cheryl Laatsch". The signature is written in a cursive, flowing style.

Cheryl Laatsch
Statewide FERC Coordinator
Wisconsin Department of Natural Resources

Cc:

Ms. Kimberly Bose, Federal Energy Regulatory Commission, Washington, D.C.

Nick Utrup, US Fish & Wildlife Service

Randy Thoreson, National Parks Service

Denny Caneff & Jim Fossum, River Alliance of Wisconsin DNR

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From: Hal M. Watson, 215 7th Street, River Falls, WI 54022

To: Kristi McKahan , Executive Assistant (kmckahan@rfcity.org)

Re: Text of Public Comments at River Falls City Council Meeting on May 27, 2014 by Hal Watson

Hello, my name is Hal Watson and I live at 215 7th Street, here in River Falls.

I'm here tonight on behalf of the *Friends of the Kinni* to report to you that in addition to individual comments, seven stakeholder organizations filed formal comments on the City Utility's Hydroelectric relicensing Pre-Application Document and requests for studies to be considered.

I'd like to thank Mr. Ray French for receiving these documents. As the Utility staff and Advisory Board work their way through the next stage of this process, I would like to encourage pro-active communication and a collaborative spirit.

I would also like the Mayor and Council to take every opportunity to be involved in this process. Toward that end I have brought with me tonight for each of you a bound copy of the stakeholder documents for some light summer reading.

(materials distributed)

Thank you.

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From: beschreib77@gmail.com
To: [Raymond French](#)
Subject: Dam on the Kinni
Date: Sunday, March 23, 2014 8:49:04 AM

Hello,

I am an avid fisherman and canoeist. However, let's consider what makes sense about this. We live in a time where energy is expensive relative to other things and at a rate higher than much of the past. It will only become even more expensive. It makes sense to preserve any "free" energy source rather than eliminate it; especially an energy source that is ozone depletion free and sustainable. This considers the present public who enjoy lower cost energy as a result and their children.

Secondly, one of the main concerns others have is the algae blooms that occur in the ponded areas of the river. Their source is not the fact that the dam exists cause slack water areas, but that farmland runoff of nitrogen and other fertilizers cause the enriched water to force the algae bloom.

All the local rivers in the area have shown algae blooms: Red Cedar, Eau Galle, and even parts of the Apple. This is common knowledge. The local DNR hydrologist KNOWS this and should be consulted. This person should be requested to lay out the facts and project what will happen to algae and the nitrates if the dam is removed; likewise, what will happen to the fishery(good or bad) if the dam is removed. Will the nitrates just be flushed more successfully down the river system into the ocean? Will the fish be better able to spawn? Will the dam removal cause other side effects, not previously considered?

Brian E. Schreiber
Oakdale, MN

beschreib77@gmail.com

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From: [Mike Harvey](#)
To: [Raymond French](#)
Subject: The two dams
Date: Wednesday, April 02, 2014 7:39:00 AM
Attachments: [4C00D48D-6E67-4EC5-89D8-88F76ACF50AF121.png](#)

Ray,

I was given your concoct information from friends of the Kinni, I just wanted to express my opinion as a in-town Business Owner and a former resident, which I now live in the Town of River Falls. I originally didn't know how I felt about removing the two dams, I thought it would be cool, but also wasn't sure how it would impact the river, community, city, and the electricity production. I originally thought our hydro plant produced more energy than it does as well as what it might do for the upper part of the Kinni. After having some conversations with people around town, I now feel like this must be done. Not only is it going to help clean up the Kinni, but also bring back the beauty of the river. Which I have always been concerned why we have taken this great natural resource and turned it into this waste of a pond. I can only imagine that this may be the first step in turning RF into a true trout stream/ tourist town. Thanks for listening and look forward to seeing which direction all of this goes.

--

Michael Harvey – President

Able Energy Co.

An Equal Opportunity Employer

Headquarters- River Falls, WI

www.WeKnowSolar.com

Office: 1-877-235-8962

Cell: (612) 597-7510



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From: [Martha Piegras](#)
To: [Raymond French](#)
Cc: [Kevin Westhuis](#)
Subject: Suggestion for study
Date: Wednesday, April 02, 2014 8:51:42 AM

Hello Ray,

Thank you for meeting with me yesterday. I appreciate your clarifying some things for me.

I would like to inquire as to whether the utility has studied the management of sediment in Lake Louise, from a standpoint of prolonging the useful life of the Powell Falls hydroelectric generating capacity, and from an environmental standpoint as well. I have heard that Lake Louise is becoming fairly shallow.

I am personally in favor of retaining clean, renewable hydroelectric generating capacity at the two dams in River Falls.

Furthermore, I think Lake Louise may be extremely important as a thermal buffer between the city and the waters of the Kinnickinnic River downstream, and it is most likely in the best interest of all stakeholders to prolong its viability and improve its capacity. As the waters of Lake Louise become shallower, it will be warmer in the summertime when sun shines for long hours in the confines of the cliffs surrounding the lake. I believe that deeper layers of water would be cooler, so in addition to prolonging the life of the hydroelectric capacity, there will be an environmental benefit.

I would expect the sediments of Lake Louise would be relatively uncontaminated except for normal street runoff materials, thanks to Lake George intercepting any industrial discharges upstream. Of course some sampling of the Lake Louise sediments would be necessary to confirm this.

I located a simple approach for sediment removal on the internet: <http://www.dinosix.com/> It is used in marinas and in small ponds. It should be small enough to easily access Lake Louise from Glen Park.

The retrieved sediment slurry could be pumped into geotextile tubes located on the lake's perimeter, allowed to drain, the tubes cut open and the sediment removed by a front end loader and dump truck accessing the lake from Glen Park.

The costs would need to be justified by benefit to the increased longevity of the Powell Falls hydroelectric station. A study would be needed to ascertain this. I am wondering if this is the appropriate time for RFMU to perform such a study.

Marti Piegras
St. Croix Gas
415 S. Second St.
River Falls, WI 54022
715-425-6177

From: [Martha Piepgras](#)
To: [Raymond French](#)
Subject: Study suggestion
Date: Monday, April 07, 2014 10:01:50 AM

Hello Ray,

I'd like to suggest that the city utility request 2013 temperature monitoring data from Kent Johnson and Trout Unlimited, especially for the South Fork and the Powell Falls Dam. It would be interesting to compare with data from the 2003 thermal study by the Army Corps of Engineers.

Marti Piepgras

St. Croix Gas
415 S. Second St.
River Falls, WI 54022
715-425-6177

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From: [Molly Breitmün](#)
To: [Raymond French](#)
Subject: Hydroelectric Relicensing
Date: Thursday, April 10, 2014 3:53:12 PM

Hello Ray French,

My name is Molly Breitmün and I am a resident of River Falls. I am also a nontraditional student at UWRF majoring in conservation. I would like to offer an article I wrote about the discussion that has been inspired by the dam re-licensing as a comment submission.

My hope is that the University, myself included, can be useful in the research that will be necessary in the process to educate ourselves as a community.

Thank you,
Molly Breitmün
227 S. Dallas ST
River Falls, WI 54022

Dam Licensing Application Sparks Community Discussion, Possibilities for Research

Molly Breitmün

On the evening of Monday, March 24th, a federal relicensing hearing for the dams on the Kinnickinnic River below Lake George and Lake Louise was held at River Falls' city hall. It was standing room only as a great community discussion ensued.

Dr. Jarod Blades, Assistant Professor of Conservation and Natural Resource Management at UWRF, personally applauds River Falls in fostering a public decision space: "The City did a fantastic job of opening the relicensing process with an inclusive and transparent public involvement process. From a social science research perspective, it would be exciting to build upon the public and community involvement process by exploring local and regional perceptions of the existing dams and potential management alternatives through survey, interview, and focus group methods. By understanding our public values, beliefs, and attitudes about the Kinni watershed, dams, potential removal, and the risks/benefits surrounding these topics, we could enhance the dialogue between managers and the public and add insights into upcoming decisions pertaining to the watershed."

An overwhelming amount of people that spoke at City Hall expressed the need for scientific data to properly weigh the impacts of both maintaining and removing the dams on the Kinni. To fully answer the questions the community brought forth, research should investigate the social, economic and environmental consequences.

Anecdotal evidence of the historical presence of a metal-plating factory led some citizens to worry about the toxicity of the sediment that has accumulated in the reservoir lakes. Research into the records of private enterprise that occurred in this area as well as sediment core sampling of the lakes would be prudent amongst other measures.

Another citizen, who wishes to remain anonymous, considered the high snapping turtle population density in Lake Louise. Although snapping turtles are not endangered nor are they the darlings of environmental causes, this citizen posited that the turtles would lose habitat if the lakebed drained back into a dynamic river way. Conversely, it was also weighed that native black ash, silver maples, and frogs might find their habitat expanded if the dams were removed. These are all valid points that need to be backed with impartial data collection.

An economic study that could unravel uncertainty about the dams might consider the annual cost of maintenance of the dams versus the gross cost of dam removal and river restoration. The study should look at how long, or if at all, would it take to recoup the cost of removal due to no longer having to maintain the dams.

The Kinni serves as a central feature of the River Falls' community identity. Some citizens see that identity as always including Lake George and Lake Louise. Others envision an evolution of the identity by returning the area to cascading falls. The Kinni has long been of great economic value to the community and local businesses; research is needed to project what the effect might be on tourism and other services and products if the dams were removed.

At the City Hall discussion, a comment was made suggesting the council room was full in part due to UWRF students simply showing up for extra credit. While this may have been true for some students, others like the members of the UWRF student group, Environmental Corps of Sustainability (ECOS), were there because of their concern for the future of the Kinni.

UWRF is an invaluable resource for trustworthy data, education, and energetic volunteerism. Even if UWRF's contribution were a preliminary product that led to confirmation by professional consultants, the value to students and their relationship with the greater community and the Kinni would be immense.

Dr. Blades shared his personal perspective on the possibilities: "Through the use of UWRF's new Active Learning Center, we might be able to provide opportunities for expanded public involvement and a space for interactive community forums where the public could actively deliberate with scientists, community leaders, local interest groups, and students. There are also ample opportunities to explore biophysical, ecological, and economic topics related to the dams. Research questions could be related to water resources and water quality, wildlife habitat (e.g., avian and fishery), recreation and tourism, power production and economics, and other ecosystem services. Regarding the discussion of dam removal, a particular interest of mine would be related to ecological restoration, how the watershed functions currently, and how that could change under alternative management scenarios."

UWRF's campus, nestled on a Class I trout stream, is ripe for maturing as a living laboratory. Many classes in the College of Agriculture, Food and Environmental Sciences already use the South Fork and the Kinni as fantastic hands-on learning opportunities. Hydrology students have been collecting water quality, temperature, and turbidity data above and below the dams for many years. The Entomology students visit the Kinni at least twice within a semester to collect both aquatic and land insect specimens.

From Dr. Blades' individual perspective, "The process of relicensing the two Kinnickinnic River dams through the Federal Energy Regulatory Commission (FERC), and the community-wide discussion about potential dam removal, represents a unique research and community engagement opportunity for UWRF. This rare process (every thirty years) is an opportunity to reaffirm and enhance the science-management-community partnerships that exist between the university, City of River Falls, and interested public stakeholders. The university has the capacity to potentially engage in a comprehensive, interdisciplinary evaluation of the complex social-ecological systems surrounding our dams, and explore potential alternatives for the short- and long-term."

Citizens, students, faculty, and non-profits have all entered the discussion. Their continued communication and collaboration could lead to sound research to guide the community in coming to the best decision possible.

Please contact Molly Breitmün at molly.breitmun@gmail.com for constructive feedback and/or opportunities in participation and collaboration.

Randall Arnold, Minnetonka, MN.

I have been a member of the Kiaptuwish chapter of Trout Unlimited for over 10 years and a sportman who has enjoyed trout fishing on the Kinnickinnic River for close to 25 years. I am deeply concerned about the effect which the impounded water above the dams on the Kinnickinnic is currently having on the temperature and quality of water which is being delivered to the lower river below the dam. The impoundments (lakes) above the dam are filling with more and more sediment with each passing year. In the heat of the summer months, the water in these impoundments becomes stagnant and covered with algae which contributes detrimentally by lowering the quality and raising the temperature of the water which is being fed to the lower river below the dam. It should be an easy study to calculate and determine the rate at which the impoundments are filling with sediment and the effect which these broad shallow 'lakes' are currently having on the river and what detrimental impact they will have in future years as our climate warms and the water depth and algae growth worsen. It seems totally ludicrous to me to maintain a dam and a hydroelectric facility in place when it is providing less than 2% of the energy needs of the city of River Falls. It is for the above reasons that I oppose the relicensing of the hydroelectric facility in River Falls and advocate for the removal of the dam and power plant.

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From: [Michael Alwin](#)
To: [Raymond French](#)
Subject: FERC Relicensing
Date: Tuesday, May 13, 2014 12:45:06 PM

Dear Mr. French:

I have provided the following comments to FERC regarding the City's application.

Michael Alwin
3150 Torrey Drive
St. Paul MN 55125

Re: River Falls Hydroelectric Project, FERC Project # P-10489

I've been a trout angler for over forty years and consider the Kinnickinnic River to be my home water. While there can be no doubt that the city of River Falls has made great strides in protecting the river, there is also no doubt that the last remaining obstacle to the lower river's rehabilitation are the city owned dams. Our Trout Unlimited chapter, Kiap-TU-Wish, has been monitoring stream temperatures above and below the city for over twenty years. Using the river above River Falls as a baseline, the data clearly indicates the effect the impoundments have on the lower river; the lower Kinni runs approximately two degrees warmer in summer and approximately two degrees colder in winter, a condition not favorable to the trout.

Why is this important? In a presentation at the Upper Midwest Trout Symposium, April 15, 1978, Professor Gary Borger, UW Wausau, now retired, clarified the reason.

"While three quarters of our planet is covered with water, less than three percent of it is in fresh water, and over seventy-five percent of the fresh water is frozen in the polar ice caps. Thus, less than 0.75 percent of the fresh water is actually free; nearly all of this is ground water. In fact, only 0.0001 percent of the world's water runs in rivers and streams at any one time, and most of these are not suitable for trout. Less than one millionth of one percent of the world's water flows in trout streams."

That one millionth of one percent makes a trout stream one of the world's smallest ecosystems and the dams in River Falls are having a deleterious effect on approximately eight miles of one of those streams. Because of its fragility and because of the infinitesimal size of this ecosystem, the lower Kinni needs to be protected. I urge FERC to deny the re-licensing application, thereby clearing the way for the removal of those dams.

Sent from my iPad

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COMMISSION

May 9, 2014

2014 MAY 15 A 10:19

Michael Alwin
3150 Torrey Drive
St. Paul MN 55125

FEDERAL ENERGY
REGULATORY COMMISSION

Federal Energy Regulatory Commission
888 First Street NE
Washington DC 20426

Re: River Falls Hydroelectric Project, FERC Project # P-10489

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That one millionth of one percent makes a trout stream one of the world's smallest ecosystems and the dams in River Falls are having a deleterious effect on approximately eight miles of one of those streams. Because of its fragility and because of the infinitesimal size of this ecosystem, the lower Kinni needs to be protected. I urge FERC to deny the re-licensing application, thereby clearing the way for the removal of those dams.

Michael S Page, River Falls, WI.

Below are my spoken comments from the River Falls Hydroelectric Project Stakeholder Meeting on March 24, 2014, for official inclusion.

Hello, my name is Michael Page; I have lived here in River Falls my entire life, I have been fishing, canoeing, and kayaking the Kinni for over a quarter of a century and I absolutely love this river as I know many of you here today do as well. Others have spoken and will speak today bringing essential topics to the floor associated with the potential removal or relicensing of the dams, I would like to include in this discussion the potential for increased tourism and recreational opportunities right here in the heart of our community that would certainly occur if the dams were removed and the Kinni allowed to flow freely again.

The positive economic impacts our community would experience as a result of this revitalization would be substantial both today and for generations to come. As a part of this relicensing process we need to further evaluate these potential economic benefits that would result from the increased tourism and recreation in the heart of our community. We must also include in that consideration the opportunity to avoid the significant expense associated with the relicensing of these dams, which is also an unknown figure at this point.

There may be some economic value in the production of electricity from these dams, but neither you nor I know right now if that is the case. Further research into the long term costs of their operation and maintenance needs to be conducted before we will know the answer to that question. What I do know is that the true value that lies in this beautiful river is in its restoration, the true value of bringing a living river back to the heart of our community, for our children and for our children's children, is priceless.

River Falls claims to be "the City on the Kinni", but we truly are not. We are in actuality "the City between the Kinni" with the upper and lower Kinni's on either side of town, and with Lake George and Lake Louise here within our borders.

If you take a drive north of town on any given day of the week you will see multiple cars parked at each of the fisherman's landings along the river. If you hike below the lower dam you will come across dozens of people out enjoying the river out running, hiking, biking, fishing, and kayaking. Yet if you sit in Veteran's Park all day, at the center of our community, you will likely only see people passing by the river with hardly a glance, or maybe stopping briefly to peak down at the water from the foot bridge, you will not notice any fisherman, or kayaks going by on the river. The river here in the heart of downtown is not a draw, it is more of an eyesore.

The Kinni is 22 miles long in total. The stretch of water in town starting at Division Street and ending at the lower dam is just over one mile in length. This stretch through town is a stagnant, poorly oxygenated, unnaturally warm, and underutilized waterway with little recreational opportunity. This mile of river constitutes almost 5 percent of the total length of our beloved Kinni and yet through this stretch the Kinni lies buried beneath the flat and tepid waters of Lake George and Lake Louise. Through this stretch you do not see people kayaking, fishing, or swimming. You do often see people walking along the White Pathway, however, the utilization of the White Pathway would surely increase if it were alongside a free flowing Kinni with expanded trails, waterfalls, and

even wetlands maintained for the Geese and Swans per the Lake George reconfiguration plan that would surely be included in any dam removal proposal.

Last summer my brother Eric and I took our daughters Isla and Savannah aged 2 and 5 out in a canoe on Lake Louise. First of all, how many of you here today have ever been out on Lake Louise? Ok, that's a good start towards baseline data for further research efforts.

We took our canoe down the paved path from Glen Park to just below the upper dam where the South Fork flows in and we paddle out onto Lake Louise with eager anticipation for the unknown. I brought a fishing rod along as I can't really go out on any body of water without a fishing rod. And much to my amazement and disappointment I couldn't find a single place within that body of water where I could even cast my lure. The entire lake is only 2 -3 feet deep, completely silted in, without any emergent or submergent vegetation, with no sign of life whatsoever. As a result of our experience, we do not plan on ever going back out on Lake Louise again.

While not easily quantifiable, all one has to do to evaluate the difference in recreational utility between Lake George or Lake Louise and a free flowing Kinni is take a short walk on a warm summer day. Start at the Winter Street Bridge near the power plant and look down at the algae filled lake that exists below. And then take a stroll a block away to the swinging bridge that crosses the now naturally flowing South Fork of the Kinni (yes, even the South Fork had a dam or two impeding its flow in its day) and look down from that bridge.

At the first stop, I can guarantee you did not particularly enjoy the view, nor did you notice anyone recreating on the water, at the second stop I am sure you were struck with the beauty of the scene, and very likely there were multiple people exploring the free flowing river below and enjoying the cascading waterfalls.

Now imagine the view from the Winter Street Bridge with the dam removed, with a very similar cascading falls present below, but with 4 to 5 times the flow of water passing over these new falls.

Just imagine.

Thank you.

From: [Scot Simpson](#)
To: [Raymond French](#)
Subject: FW: River Falls Hydroelectric Project, FERC Project No. P-10489, Kinnickinnic River
Date: Monday, June 09, 2014 4:41:30 PM
Attachments: [image001.png](#)

Scot E. Simpson | City Administrator

222 Lewis Street | River Falls, WI | 54022
(715) 426-3402 (direct) | (715) 426-3403 (Asst.)



From: Goudreault, Paul [mailto:paul.goudreault@amec.com]
Sent: Monday, May 19, 2014 11:02 AM
To: Scott Morrissette; Scot Simpson; Diane Odeen
Subject: River Falls Hydroelectric Project, FERC Project No. P-10489, Kinnickinnic River

Diane, Scott and Scott;

I wanted to reach out to you, given we know each other and I am a new City of River Falls resident. As you may know, my background is as a Hydrogeologist and Limnologist. I have a MS from the U of M and have been working in the field of environmental science for over 35 years. Furthermore, I am an avid trout fisherman and have spent many hours on the Knnickinnic River.

I am writing to ask for your support in letting the permit expire for the hydroelectric plant and allow the citizens to reestablish the natural river channel and ecosystem. I believe that a free flowing river will add tremendous value to our community! While restorations like the Kinni are not easy, they build long term value for the community and the natural environment.

Please support the future and let's have a vision for the future that builds from a free flowing river.

Thanks!

Paul R. Goudreault
Oil & Gas Sector Leader
AMEC

Environment & Infrastructure
10777 Clay Road, Houston, TX 77041 USA
Direct +1(612)889-1376

paul.goudreault@amec.com
amec.com

Be more sustainable - think before you print.

From: [Scott Andrzejczak](#)
To: [Dan Toland](#); [Aaron Taylor](#); [Dan Gulick](#); [David Cronk](#); [David Reese](#); [Diane Odeen](#); [Jim Nordgren](#); [Kevin Westhuis](#); [Raymond French](#); [Reid Wronski](#); [Scot Simpson](#); [Scott Morrissette](#)
Subject: FERC - RF Hydroelectric Project. City & Federal Energy Regulatory Commission (FERC)...
Date: Monday, May 19, 2014 11:16:15 PM

River Falls City Officials,

I kindly ask you to research and please consider all options during the FERC - River Falls Hydroelectric Project Re-licensing process...

Reviewing:

- *Opportunity costs
- *Economic impact
- *Increased tourism potential
- *Additional public/green space
- *Cost-benefit analysis
- *Fisheries enhancement
- *Wildlife and habitat improvements
- *Parks, recreational, and wellness opportunities
- *P&L Financials of current vs. other energy generating options
- *Partnering with local: schools, universities, and private interested groups for volunteer projects

Thank you.

Best Regards,
Scott

~~~~~  
**Scott P. Andrzejczak, MBA**

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Tim Pommer, St Paul, MN.

I see no reason for these dams to be up. In contrast, I see every reason to remove them. They are old, outdated, insufficient, an eye sore, and not good for the ecosystem of the river.

**From:** [Bruce Benson](#)  
**To:** [Raymond French](#)  
**Subject:** Kinni dams  
**Date:** Tuesday, May 20, 2014 9:09:07 AM

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I would like to express my support for removing the dams in River Falls. Although not currently a resident, I grew up in RF and my family still lives there. I fish the Kinnikinick every time I am in town.

To the best of my knowledge, every town that has "Falls" in its name in Wisconsin no longer has a falls. They were the easiest places to dam for electricity. That need has been met by other sources and the value of a natural waterfall would greatly enhance the city.

I believe it would be a great investment in the city for years to come and should be implemented.

Thanks for your time,

**Bruce Benson**

Senior Consultant  
Resource Partners Group Inc.  
[bbenson@rpgroup.us](mailto:bbenson@rpgroup.us)  
262.224.3070

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Gretchen Page, New York, NY.  
Ladies and gentlemen,

I urge you to consider evaluating the dams currently in place on the Kinnickinnic River in River Falls, Wisconsin. Having grown up in River Falls, I can speak directly to the importance of the river on the ecology of the community and can attest to the fact that a healthy, free-flowing Kinnickinnic River would have an incredible impact on both the recreational benefits that the river provides as well as the economic vitality of the community surrounding the river. The river is already an important economic driver for the small city, as fly fisherman and kayakers come from surrounding areas and around the country to enjoy the beauty and bounty of the Kinni. It is my understanding that a natural flowing waterway would improve both the health of the stream for the trout that are so attractive to these fishermen and the beauty of the stream for those kayaking or canoeing in its waters. Outdoor recreation is an important part of this community whose name is based on its relation to these historical waterfalls. It seems logical for both the well-being of the inhabitants of this community, the health of the waterway, and the economy of the industry that the river spawns to consider restoring this river to its natural state.

Please, remove the dams on the Kinnickinnic River!

Thank you,  
Gretchen Page  
Former Citizen  
River Falls, WI

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Anthony Chevalier, Minneapolis, MN.

Dear Recipient,

My name is Anthony Chevalier. I am a landscape architect by trade with a background in community development. I am also very familiar with the community of River Falls, Wisconsin and the Kinnickinnic River. I greatly value our natural resources for a great many reasons; their aesthetics, the opportunities they provide for recreation, their resiliency and ability to mitigate human-caused environmental degradation, their ability to create economic capital as well as social capital, among many other reasons.

I am completely in favor of the removal of the Junction Falls Dam and the Powell Falls Dam in the vicinity of the City of River Falls. There are a number of reasons that the re-licensing of the dams should no longer be pursued and the pursuit of dam removal be undertaken.

First of all, the dams do not make economic sense. It is my understanding the the power generation from the dams makes up less than 1.5% of the community's energy need. This amount of energy could easily be purchased from other existing power sources at a cheaper amount than the cost of relicensing and the upgrades need for the out-of-date dams and generators. It is my understanding that these cost, though not completely known, will be exorbitant. In lieu of that, alternative "green" energies could be pursued to offset the energy loss.

Secondly, the dams currently do great harm to the aquatic health of the Kinnickinnic River, which limits trout population and produces unsightly and unhealthy algae growth in the adjacent lakes. These lakes (Lake George and Lake Luise) are very shallow and only exist due to the dams. They would naturally exist as floodplains with wetlands that would filter and clean water as it enters the river rather than produce stagnant water. The removal of the dams and the draining of the lakes presents a great opportunity to create new parkland and install bio-infiltration wetlands to collect stormwater run-off from the highly impervious downtown and filter the water. Currently much of this water flows directly into the river. The Kinnickinnic River is a world class trout stream north and south of this location where the river is able to run free. Removing the dams would restore this stretch, improving water quality and trout populations, which would in-turn bring with it more recreational opportunities and economic development via tourism.

Almost the entire area of the land surrounding the lakes and river in River Falls is publicly owned. Some trails currently exist and are highly used. Removing the dam and focussing efforts to improve trail facilities and outdoor amenities would greatly serve the community of River Falls as well as promote tourism and economic development. In addition, removing the dams would reveal the historic falls of River Falls, which would be a great attraction to the city. The picturesque falls were the reason the community was founded where it was. They helped to build the community via their ability to power lumber and flour mills. After these industries moved on the falls were adapted to generate electricity. Now that their usefulness in doing that has lapsed, they should be considered as an economic generator via tourism. They should be the "face" of the community, creating a strong sense of place. They are an asset for the community to rally around, and an amenity for generations to come to enjoy and benefit from.

Sincerely,

Anthony Chevalier, PLA  
Adjunct Professor - University of Minnesota

summer Knight, Lakeland, MN.

I would like to request to please remove the Kinnickinnic Hydro dam this will create a better river system and restore trout waters that have been broken into two separate systems by the old dam. This would create a better river system and fishing and habitat in that area.

Jarod Blades, River Falls, WI.

These excerpts were taken from a student article that was written for the University of Wisconsin - River Falls campus paper titled "Kinnickinnic dam licensing application sparks public discussion, possibilities for research" written by Molly Breitmün. The comments I provided for her article are below:

The City did a fantastic job of opening the relicensing process with an inclusive and transparent public involvement process. From a social science research perspective, it would be exciting to build upon the public and community involvement process by exploring local and regional perceptions of the existing dams and potential management alternatives through survey, interview, and focus group methods. By understanding our public values, beliefs, and attitudes about the Kinni watershed, dams, potential removal, and the risks/benefits surrounding these topics, we could enhance the dialogue between managers and the public and add insights into upcoming decisions pertaining to the watershed.

Through the use of UWRF's new Active Learning Center, we might be able to provide opportunities for expanded public involvement and a space for interactive community forums where the public could actively deliberate with scientists, community leaders, local interest groups, and students. There are also ample opportunities to explore biophysical, ecological, and economic topics related to the dams. Research questions could be related to water resources and water quality, wildlife habitat (e.g., avian and fishery), recreation and tourism, power production and economics, and other ecosystem services. Regarding the discussion of dam removal, a particular interest of mine would be related to ecological restoration, how the watershed functions currently, and how that could change under alternative management scenarios.

The process of relicensing the two Kinnickinnic River dams through the Federal Energy Regulatory Commission (FERC), and the community-wide discussion about potential dam removal, represents a unique research and community engagement opportunity for UWRF. This rare process (every thirty years) is an opportunity to reaffirm and enhance the science-management- community partnerships that exist between the university, City of River Falls, and interested public stakeholders. The university has the capacity to potentially engage in a comprehensive, interdisciplinary evaluation of the complex social-ecological systems surrounding our dams, and explore potential alternatives for the short- and long-term.

Thank you for your time and consideration of these comments. I have done extensive public comment analyses related to NEPA and other regulatory documents, and I understand it can be a long process (although informative about the salient issues). I look forward to talking more about this project in the future. Keep up the good work!

Jarod Blades

**From:** [Patrice Veit](#)  
**To:** [Raymond French](#)  
**Subject:** Subject: River Falls Hydroelectric Project, FERC Project No. P-10489, Kinnickinnic River, Pierce County, Wisconsin: Comments on Preliminary Application Document and Study Request  
**Date:** Wednesday, May 21, 2014 10:19:53 PM

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Dear Mr. French,

I am writing to support the effort to remove the dams on the Kinnickinnic River. I have lived near and enjoyed the Kinni since 1986. I fish, I go kayaking, I hike, and I work to preserve this lovely river. I am very serious about my commitment to the preservation of this river.

Along with others in the early years of the Kinnickinnic Land Trust, the development rights of my 30 acres were given as a gift to the Trust.

I believe this river should run cold and clean and free along its entire length. Please consider my opinion as the city decides whether to keep the dams.

Thank you.

Sincerely,

Patrice Veit  
Clifton Township

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Kevin Greaser, River Falls, WI.

I am a lifelong resident of River Falls as well as a flyfisherman. I did my undergraduate work at the UW-Stevens Point in Fishery Biology. It is my understanding that the current dams in town do not generate a beneficial or significant amount of electricity and serve no recreational purpose. I can see no reason why we should not remove these dams and return the river to its natural state. The lakes though beautiful, they really are not natural and do not support the native flora and fauna that section of river once supported.

**From:** [Art Kaemmer](#)  
**To:** [Kevin Westhuis](#); [Raymond French](#); [Reid Wronski](#); [Scot Simpson](#); [Scott Morrisette](#)  
**Subject:** River Falls Hydroelectric Project, FERC Project No. P-10489, Kinnickinnic River, Pierce County, Wisconsin: Comments on Preliminary Application Document and Study Request  
**Date:** Thursday, May 22, 2014 2:59:35 PM

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Ladies and Gentlemen:

Please add my name to the list of those people who oppose “business as usual” regarding the two dams on the Kinnickinnic River in the city of River Falls. My family and I feel strongly that the minuscule economic and emotional value of these outdated structures is far outweighed by the economic and environmental benefit that would be acquired by their removal and the subsequent establishment of a cold water, free-flowing river throughout its length.

While I confess that I am not a registered River Falls voter or property owner I was a member of the first Kinnickinnic River Land Trust board and have fished the Kinni and frequented the city on a regular basis for the 40+ years I have lived in the Twin Cities. In addition, when the Lubich “Swinging Gate” farm came up for auction a number of years ago it was our family that put up the money to buy it and take it off the market long enough for the KRLT to raise the funds necessary to buy it from us – and subsequently turn it over to the WI-DNR, thereby forever protecting that valuable stretch of river and piece of land.

Please don’t allow the emotional arguments for dam (and lake) preservation override the long-term environmental benefits; take the long view and remove the dams.

Sincerely,

Art Kaemmer MD

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Alison Page, River Falls, WI.

I appreciate the requirements FERC has for evaluation of the impact of a dam before the license for the dam is renewed. Hopefully, the City of River Falls will respond to the many requests from citizens to study the impact of the dams along the Kinnikinnic River as part of the process of relicensing. Requests have been made to study the economic, social/recreational and environmental impact the dams have had in the past and may have in the future. I support these studies and feel they are all necessary in order for a well informed decision to be made. I would encourage FERC to insist that comprehensive studies are done by the City of River Falls in all three areas of interest. If they are not, the dams should not even be considered for relicensing. My hunch is that when we look at the facts we will agree as a community that it is time to remove the dams.

**From:** [Jackson Schwartz](#)  
**To:** [Dan Toland](#); [Aaron Taylor](#); [Dan Gulick](#); [David Cronk](#); [David Reese](#); [Diane Odeen](#); [Jim Nordgren](#); [Kevin Westhuis](#); [Raymond French](#); [Reid Wronski](#); [Scot Simpson](#); [Scott Morrisette](#)  
**Subject:** Dam removal  
**Date:** Friday, May 23, 2014 11:38:28 AM

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Good Morning,

I am writing to you to express my ideas and opinions on the removal of the dams on the Kinnickinnick River. I believe that the leadership of the city has an opportunity to create the most substantial positive change for the community and river ecosystem in a generation by moving forward with the process of removing the dams. It is the obligation of our time to assess the impacts of our presence on our local environment and plant the seeds for a vibrant, dynamic community as we move further into the 21st century. There are many different lenses that we can use to evaluate the existence of the dams whether it be the environmental, economic, or social effects, however any argument for keeping the dams falls short when compared to the benefit that removing the dams would have on the community.

I moved to River Falls at a young age when my parents purchased a piece of property and built a house to raise their family in. They looked at many different communities in Western Wisconsin and fell in love with River Falls for several reasons: the strong social fabric, the university, the Kinnickinnick River, and a community of young families who were passionate about the city that they belong to. I found River Falls a wonderful place to grow up and develop an interest in the outdoors specifically fishing on the Kinnickinnick. In 1998, when I was in seventh grade at Meyer Middle School, a few peers and I conducted a science project to identify sources of pollution on the river. We worked with the Department of Natural Resources, the Kinni River Land Trust, the University of Wisconsin River Falls and Trout Unlimited. What we found was that the dams were the largest source of pollution due to increased water temperatures in the river and reduction in ecological density and diversity.

The Kinnickinnick is a tremendous resource and the dams are not. What makes River Falls unique, among other things, is that it has a premier trout stream running through it. People travel from all over to explore its waters. I have brought people from as far away as Australia to come to fish on the river. They were astonished with the pureness of its waters and beauty of the experience they had. People do not travel to see dams on a small river, they are drawn to experiences and environments that we can't create ourselves. What we can create is the restoration of the river to more natural, more dynamic place that is truly unique.

The energy created by removing the dams would greatly outweigh the energy created by the dams. Currently the only value supplied by the dams that can be discussed is the creation of hydro-electricity. This is not "green" energy or sustainable energy. The dams disrupt the flow of the river, increase the water temperature, and reduce the vitality of the ecosystem. It is naive to not consider these issues when addressing the energy produced. The removal of the dams would create more energy thru community identity and new economic opportunities than the dams currently provide. We would have restored the "Falls" to our name, added park space where ponds currently exist that have minimal recreational value, attract tourism from the metro area, and revitalize the natural ecosystem.

Much has changed since I was in seventh grade in 1998. One thing that hasn't is the dams still exist and their viability is no greater. Which ever lens (social, environmental, economic) we

use to look at the dams, we, as a community come out ahead with the removal of the dams.

As a society, we have begun to see how actions effect the environments we live in and the need to create a better future is moving into our common consciousness. There is a growing trend for businesses to evaluate their practices and align them with the values that will create longevity and longevity is doing less harm to the environment. The same goes for communities of all sizes, there is an urgent need to evaluate the resources that exist and leverage them to the fullest benefit of the citizens and visitors of the community. I am asking for the vision and courage of the city officials to lead us to a more vibrant future as a community starting with removal of the dams.

Thank You,  
Jackson Schwartz

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**From:** [Emily Page](#)  
**To:** [Dan Toland](#); [Aaron Taylor](#); [Dan Gulick](#); [David Cronk](#); [David Reese](#); [Diane Odeen](#); [Jim Nordgren](#); [Kevin Westhuis](#); [Raymond French](#); [Reid Wronski](#); [Scot Simpson](#); [Scott Morrisette](#)  
**Subject:** Kinnickinnic Dam Removal  
**Date:** Friday, May 23, 2014 12:15:04 PM

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River Falls City Leadership,

I am writing to you in regards to the recent conversations regarding the re-licensing/removal of the dams located on the Kinnickinnic River in our town.

I am no expert when it comes to river ecosystems, hydroelectric energy, and other technical considerations as it relates to the dams, but based on the information I have come to learn about our river and dams, I see it as the best possible solution to remove the dams from our river.

Yes, there will be those who disagree. Change is difficult. But we have an amazing natural resource that offers such beauty and intrigue. I have enjoyed many hikes along the river already with my two children under 3 years old, I can imagine the draw of a free-flowing river. Even as it is today, we have not nearly fully leveraged the resource the river offers, with the backs of Family Fresh and other buildings crowding the banks of Lake Louise. There is concern from bird-lovers and those in the community who enjoy walking around Lake Louise, but think of the amazing restoration that could be developed with the removal of the dam in that area that would continue to provide accessible walking paths. There may be concern from citizens on the cost of dam removal but not only do we need to accurately quantify and consider the cost of re-licensure and long-term maintenance of the dams, I believe that there is such a group of invested citizens in our community who would help to identify grants and public funding, so that the cost does not fall on the city and tax payers.

The removal of the dams could bring an extensive number positive impacts to this community.

As city leadership, I hope that you see it as your position to complete new and thorough research on the impacts of leaving and removing the dams, use that information to help educate our community, and ultimately leverage our thoughts and opinions as a community to move forward with the best possible action. This decision has the opportunity to make an incredible impact on our community and I hope that you demonstrate courage as you move forward in this process, courage to consider that a difficult decision might be the best one.

We are lucky to have a community that is so passionate about this and many other topics that impact us.

Thank you for your time and consideration.

Emily Page

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Emily Page, River Falls, WI.

I am writing in regards to the dams located on the Kinnickinnic River in River Falls, WI. I am no expert when it comes to river ecosystems, hydroelectric energy, and other technical considerations as it relates to the dams, but based on the information I have come to learn about our river and dams, and as a member of this community, I see it as the best possible solution to remove the dams from our river.

The Kinni River is an amazing natural resource that offers such beauty and intrigue. I have enjoyed many hikes along the river already with my two children under 3 years old. I can imagine the draw of a free-flowing river. The removal of the dams could bring an extensive number positive impacts to this community. We are lucky to have a community that is so passionate about our river. I believe that removing the dams would restore the beautiful resource that we have running through the heart of our community, it would offer countless additional ways for us to utilize and enjoy this resource and would have additional impacts on the economic stimulus of our city.

Putting my personal opinions aside, and on a more factual basis, I see an immense need for further studies about the dam, the river and the possible future actions. The information present is out of date and not complete or thorough, and so I would like to strongly reinforce the need for further research about all aspects of the current state of the dam, river and long-term impacts of both maintaining or remove the dams. I fear that a decision will be made that could negatively impact our community for years to come if this research and investigation is not completed.

Thank you for your time and consideration.

Emily Page

**From:** [Hal Watson](#)  
**To:** [Raymond French](#)  
**Cc:** [Dan Toland](#); [Aaron Taylor](#); [Dan Gulick](#); [David Cronk](#); [David Reese](#); [Diane Odeen](#); [Jim Nordgren](#); [Kevin Westhuis](#); [Reid Wronski](#); [Scot Simpson](#); [Scott Morrisette](#)  
**Subject:** Re-licensing of River Falls Hydroelectric Project (P-10489-013)  
**Date:** Friday, May 23, 2014 1:01:21 PM

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Harry (Hal) M. Watson, III  
215 7th St  
River Falls, WI 54022

To: Mr. Ray French (City of River Falls) and FERC Staff (via eComment)

Regarding: Re-licensing of River Falls Hydroelectric Project (P-10489-013)

Thank you for the opportunity to comment on the re-licensing of the River Falls Hydroelectric Facility. I believe this is an important process, and I was present and spoke at the May 24, 2014 public meeting hosted by the River Falls Utility at the River Falls City Council Chambers.

I have three basic areas of concern regarding whether or not the Hydroelectric Project should be re-licensed: The health of the river; the economics of the hydroelectric project; and the impact of the project on recreation, natural aesthetic integrity, business development, and civic pride.

Health of the river:

Despite over 25 years of our best efforts to restore our cold-water fishery and its habitat through the work of our City planners, City Engineers, Planning Commission, City Council, and the volunteer efforts of organizations such as the Kinnickinnic River Land Trust and Trout Unlimited - the hard truth is that as a class 1 cold water fishery - our river is slowly dying. We now have 20 years of continuous temperature data available for analysis. Current models show that we are on a collision course with a future where trout and the cold-water species they feed on will no longer be able to survive in the lower Kinnickinnic River. During the summer months, water temperatures below the River Falls dams are typically 4.5 degrees warmer than those above. The single most effective measure we can take to extend the long-term health of the cold-water river ecosystem is to remove the dams. It is too risky to wait until 2048 to see if there are "better" reasons then, or serious problems have developed that must be cured. We have an opportunity now, this is the time to act.

Economics of the hydroelectric project:

It is no longer a given fact that the economic benefits of the hydroelectric power facility outweigh the benefits to the community of a free-flowing river within the heart of our City. The net economic value of the electric generation is minimal at best and is more likely a burden if all of the long-term costs associated with dam and facility maintenance and operation are fully accounted for. The dams are no longer needed - they have had an important use to our City, and played a vital role in the early City businesses such as flour milling but now they serve no significant function and in reality present an economic liability to our future generations. I am raising 3 children in this town and I plan to live here a good long time myself and I don't want any of us to have to pay utility fees and other taxes to keep these impoundments in place for no good reason except that they've always been here in the past and "why change now?"

Recreation, natural aesthetic integrity, business development, and civic pride:

Bringing back our falls and cascades is an opportunity for downtown revitalization, and will be a rallying point for city pride. The Falls of River Falls would create a distinctive natural feature that would attract residents, visitors and businesses that cater to them as they enjoy the area. Moreover, we have an opportunity to create new natural recreation areas in the heart of downtown, linked to our Main Street businesses, for

City dwellers (and visitors) to use to stay healthy in both body and spirit.

Reclaiming our natural heritage and namesake falls will give our City an identity that is unique among other cities in the area, and give people a reason to visit. We are, after all, "River Falls" not "River Dams," Wisconsin.

In the end, perhaps the real benefit is something we can't put a dollar figure on: we need to move forward in a new direction because we just know in our bones that it's the right thing to do now, because we can leave the future with a better river than the river that we inherited.

Respectfully,

Hal Watson

**From:** [Maren Valentine](#)  
**To:** [Dan Toland](#); [Aaron Taylor](#); [Dan Gulick](#); [David Cronk](#); [David Reese](#); [Diane Odeen](#); [Jim Nordgren](#); [Kevin Westhuis](#); [Raymond French](#); [Reid Wronski](#); [Scot Simpson](#); [Scott Morrissette](#)  
**Subject:** Dams  
**Date:** Friday, May 23, 2014 3:21:32 PM

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Hello,  
Please consider all options for the responsible removal of the dams on the Kinni in River Falls.  
Thank you,  
Maren Valentine  
303 N Fremont St

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David F Babcock, River Falls, WI.

The FERC licensing process includes a range of information and studies. We've reviewed and substantially agree with the study recommendations submitted by the Kinnickinnic River Land Trust focused on watershed and river vitality. We also agree with comments and study recommendations submitted by the National Parks Service requesting a Recreation Study. As a fifth generation member of one of the founding families of River Falls, we hold this river dear and near to our hearts. We express in the strongest possible terms that this river is a key waterway and asset to River Falls and this region. We personally desire to see the river eventually return to free-flowing. Uncovering the falls - returning the falls to River Falls would enhance the project area for economic and recreation benefit. Such a restoration would positively impact the value of the river to the community through eco-tourism and recreation and would tie into the scope of the Recreation Study. Plus, like South Fork canyon and falls below the swinging bridge, it would be more beautiful than the impoundments at any time during the year. Wildlife and aquatic life would benefit as well. A natural flowing waterway would enable local fisheries to attract and grow, attracting anglers.

We also reviewed River Falls' comprehensive plan and related assessment of the impoundment above the upper hydro facilities. Previously developed plans include changing the configuration of the impoundment to include smaller water retention and filtration ponds to mitigate storm water run-off currently discharging directly in the Kinni. The various study recommended by FERC need to include scenarios that reflect current and various configurations in future states of the project area, since changing the configuration of the impoundments, without removing the dams would like impact the river flow levels and making it difficult in certain conditions to appropriately maintain the flow rates and water quality levels that are conditions of the license. The only way to know the facts and related impacts and costs or benefits, is to pursue to due diligence and include this in the scope of the studies.

Friends of the Kinni are recommending Economic Studies to understand the ongoing operational costs. We urge this scope to include a broad view of the project area and community impact assessment to understand immediate, midterm and long-term expenses and opportunities associated with the hydroelectric facilities. A critical part of that scope also in this assessment period is Project Retirement. All hydroelectric facilities will face retirement with perpetual care or removal being necessary after the economic life is complete. Once these facilities exceed their economic life, they pose serious threats to fisheries habitat. Most hydro operators lack the necessary finances and do not understand the importance of operating and maintaining these facilities in the state in which they are licensed. As a result, they can quickly fall into serious disrepair and become a liability to their owners. Because of the high cost of repairing and maintaining structures that have exceeded their economic life or are in disrepair, they are ignored by their owners. Wisconsin, and neighboring states like Michigan, have seen several of these dams fail and wash out in the past several years, due to high rainfall events. These failures have caused extreme erosion, excessive sediment deposition and destruction of aquatic habitat accompanied by the loss of the fisheries. This sudden and catastrophic failure can also damage homes and businesses along the river and carry significant debris and waste downstream, creating a lasting and damaging impact to recreation area and downstream navigable waterways seriously impacting economy and tourism industry.

When evaluating the on-going and future retirement cost of hydroelectric projects at taxpayer expense we suspect and would like a study to evaluate the amount of money that will need to be made available to retire these projects. The study scope should include a funding mechanism to ensure either removal or perpetual care is included to avoid having the future funding gap fall to taxpayers to bear the decommissioning expenses of hydropower development and to protect the aquatic habitat in the project vicinity. It is important that the present and future ratepayer's who enjoy the use of the power from the operating project should bear the cost of retirement of the project, when necessary. Only when FERC considers the cost of retirement during the license application can FERC truly balance economics and environmental stewardship, and only then, can FERC determine whether a project provides net public benefit.

One possibility to ensure the benefits are aligned with long term costs is that a trust account be setup by the regulated utility to prepare for that eventual and certain point in the life of a hydropower projects, when they will be retired and either perpetually maintained or removed. The study could determine the size of the fund and examine other alternative retirement funding mechanisms that are equivalent to the trust fund or dedicated reserve.

It seems logical and appeals to our heart to pursue comprehensive and appropriate studies to ensure that the community and the utility are able to fully assess the situation and pursue a course that ensures the health of this cold-water resource and the waterways it feeds, enhances the community and supports the economy and enjoyment of this wonderful river for generations to come. Sooner or later the hydroelectric facilities and dams will reach the end of their viable useful life. If that time is near, we must prepare as a community to take appropriate steps to make and orderly removal and restoration a reality, for those who are here today and those who will come after us.

Thank you  
David and Judie Babcock  
104 Sylla Street  
River Falls, WI 54022