



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 Caneff". The signature is written in a cursive style with a large, sweeping flourish at the end.

Denny Caneff

Executive Director

cc: Ms. Kimberly Bose, Secretary, 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