



United States Department of the Interior

FISH AND WILDLIFE SERVICE

3817 Luker Road
Cortland, New York 13045



April 20, 2018

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
Mail Code: DLC, HL-11.2
888 First St., NE
Washington, DC 20426

**RE: Jarvis Hydroelectric Project (FERC #3211)
Review of Revised Study Plan**

Dear Ms. Bose:

The U.S. Fish and Wildlife Service (Service) has reviewed the New York Power Authority's (Power Authority) April 11, 2018, *Revised Study Plan* (RSP) for the Gregory B. Jarvis Power Project (Jarvis Project) located on Hinckley Reservoir, West Canada Creek, in Oneida and Herkimer Counties, New York. The Service has the following comments on the RSP.

Specific Comments

Tailwater Water Quality Study

Study #2 is the Tailwater Water Quality Study. The Power Authority proposes to place one water quality monitoring station downstream from the Jarvis Project's tailrace. A multi-parameter sonde will be suspended at mid-depth in the channel and will measure dissolved oxygen, temperature, and pH every 15 minutes. The sonde will be in place from June through September. Upon completion of the field monitoring, the data will be summarized to determine whether the Jarvis Project's operations are impacting water quality in West Canada Creek.

In order to properly determine whether the Jarvis Project is impacting the water quality of West Canada Creek, the water quality below the powerhouse must be compared to the water quality above the dam to determine what, if any, changes are occurring. However, the Power Authority did not adopt the Service's recommendation to install a similar data sonde in the impoundment above the dam. Without "before" data, the only comparisons the Power Authority can make are to long-term, average data sets which would not be precise enough to make meaningful comparisons. Most water quality studies at hydroelectric projects collect data above and below the project and compare the water quality after it passes through the project to what it was prior to entering the project. This is the only way to obtain meaningful results.

Fish Survey

The Service, as well as other stakeholders, recommended a fishery survey. Unless recent site-specific information is available, most hydroelectric relicensings include a requirement for a fishery survey to document species and relative abundance within the vicinity of the project. As indicated in our study request, the information in the Pre-Application Document consists of random studies using a variety of gear types over a 27-year period from 1988 through 2014. Many of these studies targeted specific resources, such as a tiger muskellunge (*Esox masquinongy* x *E. lucius*) study and a fish health survey. Limited gear types (primarily gill nets) were used in most of the studies. In addition, data downstream from the Jarvis Project (Prospect impoundment and Jarvis tailrace) are limited. An updated fishery survey is needed to adequately assess Jarvis Project impacts.

The Power Authority's rationale for not conducting updated fishery surveys is that the only potential Jarvis Project impacts are related to fish impingement, entrainment, and passage, which are covered under the *Assessment of Fish Entrainment and Turbine Passage Survival* study. As discussed below and in previous correspondence, the Service disagrees that Jarvis Project impacts on fishery resources are limited to fish protection and passage issues. Since the Jarvis Project influences downstream flows, it influences fish populations. However, even if the Jarvis Project's impacts were limited to fish protection and passage issues, a fishery survey would be needed to provide updated, site-specific data on fish species and relative abundance. Without this information, it is difficult to determine, what, if any, passage and protection measures are needed.

General Comments

Cumulative Impacts

As the Federal Energy Regulatory Commission (Commission) is aware, the downstream West Canada Creek Hydroelectric Project (WCC Project) (FERC #2701) owned by Brookfield Renewable Energy (Brookfield) is just commencing the relicensing process. Like the Power Authority, Brookfield will be using the default Integrated Licensing Process (ILP). The WCC Project has two developments (Prospect and Trenton). The three hydro sites (Jarvis, Prospect, and Trenton) often operate in tandem. Minimum flow requirements for West Canada Creek are included in both licenses and are measured below the Trenton site. Therefore, many of the impacts to fish and wildlife resources are cumulative. In addition, the Operating Diagram for Hinckley Reservoir, which is managed by the New York State Canal Corporation (NYSCC), is partially based on generation needs at the WCC Project.

As we have indicated in previous correspondence, these projects have overlapping and cumulative impacts and must be assessed together. In addition, there may be duplicative studies or the opportunity for joint studies. However, since the relicensing schedules are offset by a year, it is difficult to coordinate these aspects of the ILP. The Power Authority has taken the position that they are essentially a pass-through facility, using water that the NYSCC would otherwise just release, that they are not responsible for any downriver impacts, and, therefore, the Power Authority should not be required to complete any downstream studies. It is not clear at

this time whether Brookfield will be required to undertake those studies, although the information collected would be beneficial to both relicensing processes.

Base Flows

Under the base flow section (Section 3.3.2) of the RSP, the Power Authority points out that since the WCC Project peaks, the Jarvis Project has no impacts on downstream reaches of West Canada Creek. Selected data are presented to support this conclusion. Although the WCC Project can, and sometimes does, peak when the Jarvis Project is not peaking, it is usually operated in tandem with the Jarvis Project when the Jarvis Project peaks. During these times, the downstream flow fluctuations are directly related to the peaking operations at the Jarvis Project. Under this scenario, the WCC Project is essentially a run-of-river project when the Jarvis Project is peaking; what comes into Prospect, goes out at Trenton.

The Power Authority also indicates that traditionally, licensees are not required to study reaches that are separated from their project by other projects, particularly when the other projects are being relicensed simultaneously¹. However, to the best of our knowledge, none of the projects cited has a requirement to release a minimum flow that is measured downstream of other, intervening, hydroelectric projects. That makes this case unique and could even mean that the area of West Canada Creek where the base flows are measured should be within the project boundaries of both licenses.

Responsibilities of the Power Authority, Brookfield, and the NYSCC

In our comments on the Proposed Study Plan, we recommended that the Commission make a determination regarding which areas of study the Power Authority is responsible for versus those that Brookfield is responsible for, as well as those for which both entities share responsibility. In addition, we asked that the Commission make a determination as to whether the NYSCC will be required to license the Hinckley Dam and Reservoir, similar to the requirement that the Hudson River Black River Regulating District must license the Conklingville Dam (FERC #12252) on the Sacandaga River.

The Power Authority discussed this situation in Section 3 of the RSP and generally indicated that it was not appropriate for the Commission to require that the dam and reservoir be licensed. The Power Authority cited two cases: Fairfax County Water Authority (FERC #10828) and Upper Mechanicville (FERC #2934). The Fairfax case was cited to indicate that the Commission must protect existing water supply uses and the Upper Mechanicville case was cited as recognition by the Commission that they cannot interfere in NYSCC operations.

We do not agree that these two cases support the Power Authority's recommendation that the Commission not license the dam and reservoir. In the Fairfax case, resource agencies wanted a municipal water supply reservoir to operate in a strict run-of-river fashion to improve downstream habitat. The Commission ruled that such a measure would prevent Fairfax from having adequate water supplies for their customers. At the Jarvis Project, the stakeholders have

¹ The Power Authority cites projects on the Connecticut River, Susquehanna River, and Oswegatchie River.

recognized that storage from Hinckley Reservoir is utilized to maintain flows for municipal water supply and transportation needs, downstream in West Canada Creek, during portions of the year. No party has advocated for strict run-of-river conditions at the Jarvis Project (i.e., outflows from Jarvis must match inflows into Hinckley Reservoir at all times). In addition, unlike Fairfax County, the Mohawk Valley Water Authority (MVWA) only requires a portion of the Hinckley Reservoir water for their needs.

In the Upper Mechanicville case, the Commission required the New York State Electric & Gas Corporation to obtain the rights to use the NYSCC's dam and water rights since they were an integral part of the project's operations. However, neither Fairfax nor Upper Mechanicville involved a reservoir that was used to provide headwater benefits to downstream hydroelectric users, as is the case at Hinckley Reservoir. The cases cited by the Service, Conklingville Dam, and Carry Falls (FERC #2060), both involved reservoirs that are managed, at least in part, to provide headwater benefits. Much of the Operating Diagram for Hinckley Reservoir is based on the needs of the WCC Project. For this reason, Hinckley Reservoir is more akin to Carry Falls and Great Sacandaga Lake than it is to Upper Mechanicville and Fairfax.

Under relicensing, the Commission can alter the requirements of the new Jarvis Project and WCC Project licenses while still being protective of NYSCC needs and MVWA's requirements. Although the 2012 Operating Diagram was developed as the result of settlements related to litigation, it does not appear to have been formally incorporated into either the Jarvis Project or WCC Project licenses. In addition, although the Commission may not be legally able to modify the Operating Diagram, in balancing the public interests, including municipal water supply and Barge Canal requirements, the Commission can condition the new licenses for the Jarvis and WCC Projects such that the Operating Diagram becomes a moot point.

Commission Decisions

It is ultimately the Commission's responsibility to determine which of the cumulative impacts on West Canada Creek and Hinckley Reservoir must be addressed by each licensee, as well as how the NYSCC fits into the process. The Service is not advocating for any particular Commission decision. However, we recommend that the Commission make these decisions at the beginning of the ILPs so that the appropriate studies can be conducted at each project. In addition, all stakeholders need to have adequate information to address the impacts of both the Jarvis and WCC Projects. The Commission also needs these data to conduct their National Environmental Policy Act analyses.

We appreciate the opportunity to review the RSP and look forward to the Commission's decisions regarding the responsibilities of each licensee and the NYSCC as related to Hinckley

Reservoir and West Canada Creek. If you have any questions or desire additional information, please contact Steve Patch at 607-753-9334.

Sincerely,

A handwritten signature in black ink, appearing to read "David A. Stilwell". The signature is fluid and cursive, with the first name "David" and last name "Stilwell" clearly distinguishable.

David A. Stilwell
Field Supervisor

cc: FERC Service List
TU, Plattsburgh, NY (W. Wellman)
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