

October 17, 2020

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



Via online submission to: <http://www/ferc.gov>

Subject: **Comments of Maine Council of Trout Unlimited on the Brookfield Final License Application for the Pejepscot Project (P- 4784)**

Dear Ms. Bose:

Introduction

On behalf of its six chapters and over 2,000 members, Maine Council of Trout Unlimited submits these comments on the Final License Application (FLA) for the Pejepscot Project (P- 4784) filed by Brookfield for Topsham Hydro Partners Limited Partnership dated August 31, 2020. The project is Maine's sixteenth largest hydroelectric Project. Brookfield's filing of October 9, 2020, Pejepscot Hydroelectric Project (FERC No. 4784-095) Response to Comments on the August 11, 2020 Updated Study Report Meeting Summary, Requests for Modifications of Approved Studies, and Requests for New Studies bears heavily on the license application, and Maine TU Council comments reflect this.

Specific Comments on Final License Application

Page IS-iii, item 8: *"This is an existing Project and no new construction is planned in association with this Relicensing."* Low upstream passage rates are documented in the Updated Study Report: river herring, **"Overall fish lift effectiveness: 19.8% (75% CI = 14.8-24.9%)"**¹ and shad *"Estimates of internal (i.e., the probability of an adult shad to move from the lift entrance to the lift exit) and overall (i.e., the probability of an adult shad to move from the tailrace/nearfield region to the upstream exit from the fish lift) fish lift effectiveness are 0% due to the lack of observed upstream passage for radio-tagged individuals of that species."*² (bold supplied for clarity) Restoration of these coevolved indigenous species is vital to the restoration of endangered Atlantic salmon to the Androscoggin Watershed and the Merrymeeting Bay Salmon Habitat Recovery Unit (SHRU) as a whole. The studies shed little light on why the passage rates are so poor, for shad - zero. Redesign and subsequent modification or rebuilding of the fishlift must be seriously considered, and this must be recognized in the FLA.

Page A-4, A.2.1.2 Powerhouses and Intake Structure: *"The old powerhouse intake is constructed of concrete, and has 1.5-inch clear spacing on the trashrack... The new powerhouse intake is constructed of concrete and has 1.5-inch clear spacing at the top of the trashrack and 2.5-inch clear spacing at the bottom."* Neither of these trash racks will prevent American eels from being entrapped and entrained

¹ Brookfield Updated Study Report for Pejepscot Project (P- 4784), page 22.

² Id, page 31.

during their downstream passage. Even though the Brunswick Project downstream has no upstream American eel passage provisions, Maine Department of Inland Fisheries and Wildlife (MDIFW) has documented the presence of adult eels in at least two locations above the Pejepscot Project.³

Page A-4, A2.1.3.1 Upstream Fish Passage Facilities: As noted above, the upstream fish passage facilities function poorly.

Page A-6, A2.2 Proposed Structures: Effective fish passage may require additional structures. Brookfield's willingness to add such structures should be noted in the application.

Pages D-3 through D-5, Table 4.5-1: Cost Estimate of Proposed PME Measures. Fish passage measures at Pejepscot Dam have not been demonstrated to be effective. Contingency funds should be designated to implement effective fish passage once appropriate corrective measures have been identified.

Page E-5, Pejepscot Project Map: The map fails to depict that critical Atlantic salmon habitat composes the whole of the Pejepscot Project and includes all of the lower Androscoggin below Lewiston Falls.

Page E-6, E.2.1 Clean Water Act – Section 401: The applicant does not acknowledge that MDEP is currently reviewing an application to have the water quality classification of the lower Androscoggin upgraded from Class C to Class B. Although currently meeting Class B standards, the presence of the impoundment tends to degrade the water quality by reducing oxygenation. It is absurd for waters that are critical habitat for endangered Atlantic salmon to be designated Class C, Maine's lowest water quality classification.

Page E-8 E.2.6, Wild and Scenic Rivers and Wilderness Act: The lower Androscoggin is not a designated Wild and Scenic River, but may have been if it were not for the presence of the Pejepscot Dam and others. Brookfield notes that the 92-mile Allagash Waterway is the only water so designated in the state of Maine. The waterway contains only one waterfall, the 31-foot Allagash Falls. The 47.5 foot high Pejepscot Dam is built on what was formerly a significant cascade or falls with an over 20 foot drop in elevation. It should be noted that the some 22 miles of the lower Androscoggin between Lewiston and Brunswick also contains the former sites of two waterfalls: Lisbon Falls (31 feet) and Brunswick Falls (41 feet) that are both similarly impounded by hydro operations. This is in addition to the "Great Falls" at Lewiston (37 feet). The lower Androscoggin was once one of the most polluted waters in the country. As a result, much of the bordering real estate remains undeveloped with bald eagles, beaver, and other native fauna present. The dams built on these waterfalls continue to constitute an aesthetic and environmental blight on the region.

Page E-15 E.3.4.3, Decommissioning: Brookfield notes that "*FERC indicated in SD2 that no party has suggested Project decommissioning would be appropriate in this case, and FERC has no basis for recommending it.*" Given the demonstrated inability of the fishlift to pass river herring and shad effectively that has occurred since the SD2 was issued, FERC must reexamine this position and consider decommissioning if effective fish passage cannot be provided near-term.

³ MDIFW Study Requests for the Rumford Falls Hydroelectric Project (FERC No. 2333) dated January 28, 2020, page 4 (mainstem river), and MDIFW Comments on the Proposed Study Plan for the Hackett Mills Hydroelectric Project (FERC No. 6398) dated September 1, 2020, page 2 (Little Androscoggin River).

Page E-52 E.4.5.1.2.1, State Water Quality Standards: As noted above *"The applicant fails to acknowledge that MDEP is currently reviewing an application to have the water quality classification of the lower Androscoggin upgraded from Class C to Class B. Although currently meeting Class B standards, the presence of the impoundment tends to degrade the water quality by reducing oxygenation. It is absurd for waters that are critical habitat for endangered Atlantic salmon to be designated Class C, Maine's lowest water quality classification."*

Page E-125 and E-126, Tables 4.6.1.3.3-1 and Tables 4.6.1.3.3-2: These figures describe the many ways the Pejepscot Project degrades habitat, and supports our prior comments regarding Water Quality Classification. It includes adverse impacts on substrates, riffles and flows.

Pages E-140 to E-145, E.4.6.2 Environmental Analysis: Underscores poor upstream fish passage for alosines: *"Topsham Hydro's 2019 study results indicate that the overall effectiveness of the fish lift for adult river herring passage is 19.8% (75% CI = 14.8-24.9%)."* *"For adult American Shad that approached the study area, nearfield attraction effectiveness was estimated at 32%, while overall fish lift effectiveness was 0%."*

Page E-151, E.4.6.3 Proposed Environmental Measures: *"Reduce the operational setting for Unit 1 (unit turndown) to 3,480 cfs (resulting approach velocities of less than 1.5 fps) for eight hours during the night (8:00 pm to 4:00 am) between September 1 and October 31 annually to enhance downstream eel passage."* While a step in the right direction, this falls far short of what is likely needed to resolve the problem: replacement of the hodgepodge of screen mesh sizes used in the trash racks previously noted with 3/4 inch mesh screening, and installation of deep pass eel passage. Radio-tracking studies should be conducted to determine what is needed and are clearly preferred over desktop studies that should not be relied upon for a site of this complexity. American eel passage will become a more pressing concern early in the Pejepscot Project's relicensing cycle. The Brunswick Project currently makes no provisions for American eel passage. If/when relicensed in 2029, provisions for American eel passage will doubtlessly be prescribed greatly increasing the number of American eels entering the Androscoggin Watershed.

Page E-152, E.4.6.5 Unavoidable Adverse Effects: *"Proposed continued operation of the upstream fish passage facilities will provide access to upstream habitat, while continued operations of the existing and proposed downstream passage facilities will reduce the potential for entrainment, and thereby facilitate the safe, timely, and effective passage of migratory fish species. Operation of the Project may continue to result in some level of upstream passage delay or entrainment of individual fish, but these effects are expected to be limited in scope and will not have an effect at the population level."* This statement is ridiculous. Fish passage provisions are currently unsatisfactory and are resulting in the death of many more than *"single fish."* This is compromising restoration of endangered Atlantic salmon in the Merrymeeting Bay Salmon Habitat Recovery Unit (SHRU).

Comments on Brookfield October 9 Filing

Brookfield respectfully disagrees with the National Marine Fisheries Service (NMFS) and U. S. Fish and Wildlife Service (USFWS) requests for additional studies saying that: *"the 2019 upstream passage efficiency study provided useful information to inform the development of an appropriate PME measure, identified appropriate areas of new study related to CFD modeling and underwater sound, and for these*

reasons the requested new studies by stakeholders are unnecessary."⁴ The future of endangered Atlantic salmon in Maine should not be determined by modeling, but by actual live study data. If the applicant is unable to demonstrate that effective fish passage for river herring and shad currently exists by radio-tagging studies, then other empirical approaches must be employed.

Conclusion

All of the project area included in the Pejepscot Project is designated critical habitat for Atlantic salmon. While suggesting some possible approaches, the studies conducted by Brookfield to date have not definitively shown how to correct the problems with river herring and shad passage at Pejepscot Dam. These co-evolved species must be restored to maximize the restoration potential of Atlantic salmon to the lower Androscoggin River. Changes to project operating parameters and physical structures will most likely be required to accomplish this making much of the substance of the license application uncertain.

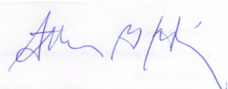
Maine Council of Trout Unlimited fails to see how FERC could relicense the Pejepscot Project under these conditions, and urges the Commission to extend the existing license on a yearly basis while studies continue until Brookfield can make effective fish passage at Pejepscot Dam a reality.

It should also be noted both the Pejepscot and Brunswick projects currently owned by Brookfield were last relicensed when the Clean Water Act and Endangered Species Act were in their infancies. How to implement fish passage and effectively monitor it were not as well understood then by any of the resource protection agencies. Significant progress has occurred since that time and major upgrades to restoration measures adopted during that era are to be expected.

Maine is the last refuge of indigenous Atlantic salmon in the lower 48 states; Brookfield Energy owns over 80 percent of Maine's hydroelectric power generation capability and with that ownership comes major responsibilities. It is time for Brookfield to start looking further than its bottom line, cease its efforts to dispute and delay the actions of state and federal resource protection agencies, and do what is needed to restore Atlantic salmon in Maine.

The Brunswick Project license downstream expires in 2029, and relicensing provisions for Brookfield's head-of-tide dam there will doubtlessly include definitive prescriptions for fish passage for anadromous species. If Brookfield cannot demonstrate effective fish passage at Pejepscot by then, then the license surrender process leading to dam removal should be initiated. To do less would continue to compromise the restoration of endangered Atlantic salmon.

Respectfully,



Stephen G. Heinz
Maine TU Council FERC Coordinator

⁴ Brookfield's filing of October 9, 2020, Pejepscot Hydroelectric Project (FERC No. 4784-095) Response to Comments on the August 11, 2020 Updated Study Report Meeting Summary, Requests for Modifications of Approved Studies, and Requests for New Studies, pages 6 and 7.