



JANET T. MILLS
GOVERNOR

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION



MELANIE LOYZIM
COMMISSIONER

November 15, 2023

Kevin Bernier
Senior Compliance Specialist
Great Lakes Hydro America
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Via email

RE: Ripogenus Project No. 2572 – Department Comments on “Draft Interim Plan for Aquatic Resource Protection during McKay Station Outages”

Dear Mr. Bernier:

On August 22, 2023, the Federal Energy Regulatory Commission (FERC) Division of Hydropower Administration and Compliance directed Great Lakes Hydro America (GLHA), a subsidiary of Brookfield Renewable, to consult with the U.S. Fish and Wildlife Service (FWS), Maine Land Use Planning Commission (LUPC), Maine Department of Inland Fisheries and Wildlife (DIFW), and Maine Department of Environmental Protection (Department) to, “identify measures aimed at reducing the instances of fish and macroinvertebrate strandings downstream of McKay Station [the hydroelectric generating facility at the Ripogenus Project (Project)] during downramping events, such as unit outages, until the current relicensing process is concluded.”

On October 4, 2023, at the Department’s request, GLHA staff met with representatives from the LUPC, FWS, and the Department to discuss potential interim measures to reduce fish and macroinvertebrate strandings. In this meeting, Department staff informed GLHA that adequate minimum flows from Ripogenus Dam would be the only potential measure that will reduce fish and macroinvertebrate stranding caused by McKay Station outages. As noted in this meeting, the example measures FERC provided in the August 22, 2023 directive—additional staff presence, battery backup system, and automating a gate at Ripogenus Dam—would each result in a delay between a dewatering event and corrective action, and would, therefore, not reduce fish and macroinvertebrate stranding. In other words, even a delay in providing additional flows that is shorter than what is operationally feasible (in large part due to the need to check for recreation users in the upper gorge prior to releasing additional flows) would dewater the West Branch of the Penobscot River and would likely cause fish and macroinvertebrate stranding similar to the events that prompted FERC’s August 22, 2023 directive.

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On October 19, 2023, GLHA provided a draft of their plan to address McKay Station outages (draft plan). Department staff have reviewed the draft plan. Contrary to both FERC's specific direction and comments provided to GLHA at the October 4, 2023 meeting with agencies, the draft plan lacks any tangible new measures to address fish and macroinvertebrate stranding. Instead, it primarily appears to be a justification for why the current situation is acceptable and why GLHA proposes no immediate changes or interim measures.

Additionally, GLHA rules out additional minimum flows in its draft plan, speculating that providing additional flows from Ripogenus Dam could create a safety hazard by attracting additional recreation use to the upper gorge (bypassed reach). Department staff disagree that additional minimum flows would cause an unacceptable safety hazard for two reasons: 1) providing consistent minimum flows would actually be safer than providing flows on an emergency basis because the primary safety risk in the bypassed reach is associated with sudden increases in flows causing rising waters, and 2) as the 1991 "Plan for Providing Minimum Flow"¹ provided by GLHA notes, some safety risk below Ripogenus Dam is acceptable due to historical use patterns in the area and the existing safety measures in place (e.g. signage and sirens).

Department staff note that determining the minimum flows from Ripogenus Dam that are necessary to reduce fish and macroinvertebrate stranding is challenging due to a lack of information on project operations. There is currently no gage in the vicinity, and GLHA has not yet provided detailed information on how it operates the Project during the ongoing FERC relicensing process.² As FERC suggests in its August 22, 2023 directive, project operations have changed since the paper mill closed. When the mill was open, the previous licensee operated the Project to provide a steady supply of power for papermaking activities, thus providing a steady flow of water from McKay Station. Since the mill closed, the Project has been operated in a less consistent manner as GLHA sells energy on the open market, and this change has resulted in less consistent flows from McKay Station regardless of whether an outage occurs. Department staff interpret FERC's August 22, 2023 directive to address not only unplanned outages, but also any "downramping event" such as daily pulsing or peaking operations and whitewater boating flow releases.

The only information currently available to the Department that could inform potential minimum flow requirements indicates two things: 1) that stranding occurs when flows are reduced to 500 cubic feet per second (cfs) (as documented by the Fish Stranding Study conducted in 2022), and 2) that currently GLHA is required to release a seasonal minimum flow of 1,422 cfs to prevent fish and macroinvertebrate stranding. It is possible that minimum flows somewhere in the range of 500-1422 cfs would reduce fish and macroinvertebrate stranding, and Department staff recommend that GLHA modify currently planned relicensing studies or conduct an additional study, if necessary, to determine which minimum flows or range of flows are necessary.

¹ GLHA provided a "Plan for Providing Minimum Flow" written in 1991 by Great Northern Paper (previous licensee) that discusses options for providing flows during McKay Station outages. Department staff have reviewed this report and find that it generally lacks sufficient detail to guide decision-making today but note here that the report does not provide any evidence to support GLHA's assertion that additional minimum flows would create an unacceptable safety hazard in the bypassed reach.

² Department staff notes that GLHA is required to conduct a USGS Gage Feasibility Study and an Operations Model Study as part of the relicensing process.

Unless additional information is provided that demonstrates the adequacy of lower minimum flows, the Department recommends that GLHA provide a flow from Ripogenus Dam of 1,422 cfs as an interim measure until GLHA implements permanent measures.

Department staff appreciate GLHA's willingness to meet and discuss this matter and stand ready to continue to devote staff resources to working collaboratively with GLHA, FERC, and other agencies to address effects on fish and macroinvertebrates in order to ensure that the Project can attain State water quality standards related to aquatic life and habitat.

If you have any questions about this matter, please contact me at kyle.olcott@maine.gov or (207) 641-9012.

Sincerely,

A handwritten signature in blue ink, appearing to read "Kyle Olcott".

Kyle Olcott
Hydropower Coordinator
Maine Department of Environmental Protection