STATE OF MAINE
DEPARTMENT OF MARINE
RESOURCES
21 STATE HOUSE STATION
AUGUSTA, MAINE
04333-0021

JANET T. MILLS
GOVERNOR

PATRICK C. KELIHER
COMMISSIONER

December 17, 2024

Debbie-Anne A. Reese, Acting Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington DC 20426

Subject: Maine DMR comments on the Revised Study Plan for the Brunswick Hydroelectric Project (FERC No. 2284)

Dear Acting Secretary Reese:

On December 2, 2024, Brookfield White Pine Hydro LLC (Licensee) filed a Revised Study Plan (RSP) detailing the studies planned during the relicensing of the Brunswick Hydroelectric Project (FERC No. 2284). Enclosed are the Maine Department of Marine Resources (MDMR) comments on the RSP for the Project.

MDMR looks forward to continued collaboration with the Licensee on diadromous fish passage at the Brunswick project. Please contact Casey Clark (casey.clark@maine.gov; 207-350-9791) or Lars Hammer (lars.hammer@maine.gov; 207-557-1564) if you have any questions.

Sincerely,

Patrick C. Keliher, Commissioner

Cc: MDMR, Sean Ledwin, Erin Wilson
DEP, Laura Paye, Rob Wood
MDIFW, Jim Pellerin, Nicholas Kalejs
NMFS, Matt Buhyoff, Don Dow
USFWS, Kyle Olcott, Jesus Morales

General Summary

MDMR appreciates the inclusion of some of our requests into the RSP including changes to the CFD modeling approach, sample size considerations for the Upstream Behavior, Movement, and Project Interaction Study, consideration of juvenile eels and juvenile river herring in the Evaluation of Stranding Risk/Bathymetry Study, and various text edits. However, MDMR remains concerned about several components of the RSP, which are still inadequate. MDMR is disappointed that the Licensee did not proactively attempt to adjust the timing of the Upstream Behavior, Movement, and Project Interaction Study to align the tagging component (Phase II) of the study to the 2025 fish passage season, despite knowledge of agency concerns during the August 28, 2024 meeting and the apparent availability of existing JSATs receivers already in hand, which was expressed by one of BWPHs consultants during the October 9, 2024 meeting. The scope of the Visual Surveys of Upstream American Eel Movements study remains inadequate due to an unwillingness to investigate all potential routes of passage at the Project. Proper eel surveys at this project are particularly important, as Brunswick is the first dam on the Androscoggin River, is only a short distance from the ocean, and thus most eels are likely to be tiny elvers and will be extremely difficult if not impossible to see from a distance. Finally, the refusal to conduct thorough downstream passage studies for American shad, alewife, blueback herring, and American eel is unacceptable. Not completing this study would result in insurmountable data gaps that would render the identification of downstream protective measures at the Project extremely difficult for resource agencies and FERC. Considering the lack of knowledge at the project, there is no guarantee that structural and operational measures identified by the Downstream Alternatives Analysis will consider all project effects and they may not result in safe, timely, and effective downstream passage.

RSP Comments

PDF Page 17: “See response to USFWS-1.”
MDMR Comment: MDMR appreciates the inclusion of additional analyses and areas in the CFD modeling approach.

PDF Page 19: “BWPH’s safety concerns go beyond those related to a sudden spill event. It is not uncommon for BWPH to lower the headpond at the Project to conduct various operations and maintenance activities. In this case, BWPH’s primary safety concern is having field staff traversing the spillway reach area at night. The combination of the rugged terrain, poor visibility, and frequency of survey events (n=12) increases the risk of a safety incident.”
MDMR Comment: With this statement, the licensee clarifies that their primary concerns do not relate to a sudden spill event, and that the headpond is routinely lowered at the Project to facilitate safe operations and maintenance activities. While MDMR acknowledges the importance of safety at the project, occasional poor visibility and rugged terrain are normal conditions during fieldwork activities and should not be a reason to severely limit the scope of a necessary study. The methods proposed by MDMR (i.e., nighttime visual surveys conducted by biologists on foot downstream of the Project facilities) have been used previously in Maine[1], and elsewhere, and are the standard methods for this work.

PDF Page 19 “In accordance with the ILP, after the ISR meeting both BWPH and relicensing participants are afforded the opportunity to propose new studies or modifications to existing studies to augment the information that was gathered during the first study year.”
MDMR Comment: MDMR disagrees with the licensee’s premise. While this may be the appropriate time to request additional information that a proposed study was unable to provide, it is not appropriate to limit the scope of a proposed study in anticipation of adding more study components after the ISR. The study as currently

[1] Accession Nos. 20230330-5128, 20231004-5054, 20240410-5059, and multiple other examples referenced in 20240422-5168.

proposed will not adequately address project effects because it will not accurately report on upstream eel movements and distribution across all project facilities. Namely, no information will be gathered for eels attempting to pass the approximately 250 ft section of spillway in the center of the river. MDMR's intent was not to add undue effort to the upstream eel study, but to complete a thorough study of all routes of passage to inform the placement of potential upstream eel ladder(s) at the project. This study does not address all routes of passage and is therefore deficient.

Furthermore BWPH asserts that the ISR meeting "would be the appropriate time to propose any study that involved the placement of temporary eel ramps and/or traps below the spillway, or any other alternative approaches deemed necessary to evaluate upstream eel movements at the Project." This statement contradicts BWPH's reasoning for limiting the originally requested survey (i.e., safety), because adequate studies conducted at a later date would involve similar fieldwork activities navigating rugged terrain at night. Thus, we request FERC support a modification of the methods and scope of this study to include nighttime observers on foot downstream of the spillway. This modification will result in a robust study of all routes of passage and is anticipated to provide information that is useful to all stakeholders and resource agencies, unlike the study as currently proposed.

PDF Page 20: "Given the 8–10-week lead time required to procure any JSATs receivers required that are in excess of those currently available to BWPH via their consultants and the need to conduct this study during the diadromous fish passage season, Phase 2 will be conducted as described in the RSP during spring 2026."
MDMR Comment: During the October 9th meeting, one of BWPH's consultants confirmed that they have a number of existing JSATs receivers that could be available for use during a "Phase 1" study in late Fall of early Winter. Thus, lead time should not be used as a reason to delay the study until spring of 2026.

PDF Page 34: "BWPH acknowledges that the existing downstream passage system does not meet current USFWS or NMFS engineering design guidelines for providing safe, timely, and effective fish passage. In addition, NMFS and MDMR in their June 20, 2024, study requests related to the proposed Upstream and Downstream Fish Passage Alternatives Study stated that any alternatives analyzed as part of that study should be consistent with the USWFS and NMFS engineering design guidelines."
MDMR Comment: MDMR appreciates BWPH's acknowledgement, however, we still have concerns with removing the downstream passage studies requested by NMFS, USFWS, and MDMR. As we have mentioned in previous comments, no downstream passage studies have been conducted at the project for adult and juvenile alosines or American eels, and thus there is little information regarding the effectiveness and safety of downstream passage at the project. Furthermore, TBSA models proposed in the downstream fish passage alternatives study will not provide adequate site-specific data due to inappropriate assumptions made in the modeling framework, as we have noted previously[2]. To date, the agencies have not seen a proposal from BWPH detailing modifications to existing infrastructure and/or installation of new infrastructure for downstream passage at the project and we have not been assured that a no-action alternative or any alternative that would utilize existing downstream passage routes would be eliminated from consideration. Without site-specific information related to route of passage and mortality, the agencies have no baseline data to compare alternatives to, and we will not know the extent of downstream passage problems. For example, if the licensee proposes to install ¾" angled racks at the project to exclude downstream migrants from the turbines, but maintain the current bypass system, the agencies have no information on effectiveness of the existing bypass, with which to request/prescribe an upgraded bypass system should one be needed. The agencies need this information to request/prescribe comprehensive measures for the downstream passage of diadromous fish species at the Project.

The alternatives study is also not likely to include evaluation of additional downstream passage routes including two spillway sections, gates, and a surface sluice, which may be additional sources of injury or mortality beyond the Project turbines. None of the information necessary to quantify project impacts on downstream passage and suggest reasonable alternatives will be available without these studies.

[2] Accession Nos. 20241115-5059, 20240620-5317

Given the above, MDMR and FERC must assume that any potential license application for this project could include a no-action proposal, or a proposal that includes use of existing downstream passage routes and facilities. Absent adequate information regarding the effects of project facilities and operations on downstream migrating fish, we do not see how FERC could make an informed decision on any such license application. For these reasons, we request FERC support our June 20, 2024 study requests entitled Downstream Fish Passage Effectiveness for Adult and Juvenile American shad/alewife/blueback herring (three separate requests), and Downstream Adult American Eel Passage Assessment.

PDF Page 34: "The USFWS requested that BWPH conduct an assessment of downstream American Eel passage to determine the impact of the Project on the outmigration of silver eels in the Androscoggin River."
MDMR Comment: The study was requested by MDMR in addition to USFWS.

PDF Page 57: "The proposed methodology to evaluate the location and relative abundance of upstream migrating American Eel that approach Project facilities is consistent with those employed at other hydropower projects and USGS published methodology. The methodology proposed here is consistent with Haro and Gephard (2023)."
MDMR Comment: Upon close inspection of the citation, it is apparent that this statement is incorrect. Nowhere within Haro and Gephard (2023)[3] do the authors recommend viewing eels from a distance at locations on top of dam structures. Instead, the authors recommend "foot survey along entire base of barrier by walking over exposed substrate at night (e.g., dam apron, bedrock) in water shoes or waders", snorkeling surveys, or boat surveys. The authors also note that "foot surveys have the highest likelihood of detecting eel concentrations in varying locations above and below the tailrace waterline and should be conducted at a minimum." Foot surveys below the dam are not proposed by the licensee, so the current study is inconsistent with USGS published methods.

[3] Haro, H. and S. Gephard. 2023. Protocol for Observational Surveys for Upstream Migrant Eels. United States Geological Survey.