April 17, 2026

VIA E-FILING

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

RE: Brunswick Hydroelectric Project (FERC No. 2284). Free the Andro Coalition Comments on Brookfield White Pine Hydro's Upstream Fish Passage Alternatives Meeting Summary (March 5, 2026 Meeting, filed March 31, 2026); and Response to Comments on the Initial Study Report (filed April 2, 2026).

Dear Secretary Reese:

I. INTRODUCTION

Free the Andro Coalition (FTA) respectfully submits these comments on the Upstream Fish Passage Alternatives Meeting Summary for the March 5, 2026 meeting, filed by Brookfield White Pine Hydro LLC (BWPH or Licensee) on March 31, 2026; and on BWPH's Response to Comments on the Initial Study Report, filed April 2, 2026. These comments are submitted in conformance with 18 C.F.R. § 5.15(d). FTA also supports and incorporates by reference the comments filed on April 9, 2026 by the Maine Department of Marine Resources (MDMR) on the upstream fish passage alternatives, and NMFS's April 10, 2026 response opposing BWPH's April 6, 2026 request to postpone Phase 2 of the Diadromous Fish Behavior, Movement, and Project Interaction Study. FTA also notes and concurs with the Commission's April 17, 2026 Study Plan Determination denying that postponement request.

FTA was formed from a coalition of organizations including the Merrymeeting Bay Chapter of Trout Unlimited, Maine Rivers, American Rivers, RESTORE: The North Woods, and Friends of Merrymeeting Bay, along with their individual members. FTA builds upon comments filed by Merrymeeting Bay Trout Unlimited (MMBTU) at prior stages of this proceeding, including on the Notice of Intent/Pre-application Document (February 19, 2024) and on the Revised Study Plan (December 14, 2024). FTA's mission is to seek removal of obstacles to the upstream and downstream passage of diadromous fish in the Androscoggin River at the Brunswick Dam site.

The Brunswick Dam is the first dam inland from the Atlantic Ocean on the Androscoggin River, Maine's third largest river, draining a watershed of 3,450 square miles. Its location at the head of tide makes it the single most consequential barrier to the restoration of sea-run fish throughout the entire watershed. This relicensing — the first in 47 years — is a rare and critical opportunity. As codified in Section 10(a)(1) of the Federal Power Act, a hydropower project must serve the public interest, not merely the Licensee's interest in power generation. As the *Androscoggin River Watershed Comprehensive Plan for Diadromous Fishes* published by NOAA Fisheries in 2020 states: "The development of the Androscoggin River does not meet a comprehensive development standard."[1] The use of this publicly held river by a privately held, for-profit multinational

corporation is a privilege and not a sole controlling right, and that privilege must be earned through genuine and effective fish passage.

II. DESIGN POPULATIONS MUST BE ESTABLISHED BEFORE ALTERNATIVES ARE SCREENED

A foundational requirement for any credible alternatives analysis is the use of properly established design populations for each target species. Without this baseline, effectiveness ratings, capacity calculations, and comparative analyses are meaningless. MDMR has provided specific, science-based population targets in its April 9, 2026 comments on the upstream alternatives:[3]

- American Shad: 171,125 fish
- Blueback Herring: 1,008,202 fish
- Alewife: 7,728,805 fish
- Atlantic Salmon (ESA-listed): 600 fish*

> * In freshwater, the primary threat to Atlantic salmon recovery is dams. The population level effects of dams are acute and well documented:
>
> - Dams directly limit or block access to otherwise essential habitats, and diminish the capacity of habitat to produce smolts.
> - Dams directly kill or injure a significant number of migrating salmon.
> - Dams compound the effects of climate change by limiting Atlantic salmon's access to cool water habitats that are most prevalent in higher elevation areas in northern and western Maine.
> - Dams have reduced both the amount and diversity of available habitat, resulting in the loss of life history and genetic diversity essential to providing population resilience to the challenges above and marine survival.
> - Dams limit the amount of marine-derived nutrients adult salmon and other species return to the system, which provide critical resources to feed the next generation of fish.
>
> (NOAA Fisheries, *Species in the Spotlight – Priority Actions 2021–2025*, at 3.) The Androscoggin River is a significant part of the Merrymeeting Bay Salmon Habitat Rearing Unit (SHRU) and the entire project area is designated critical habitat for Atlantic salmon.

FTA strongly urges the Commission to require BWPH to incorporate these MDMR-calculated design populations as the standard that any credible analysis should aspire to for all upstream fish passage alternatives analyses. The 2020 NOAA Comprehensive Plan specifically identifies the Androscoggin River as capable of supporting substantial runs of all of these species, and these are the populations that the new license conditions must be designed to serve.[1] Scaling passage alternatives to meet these populations is a prerequisite to a valid Phase 2 feasibility analysis.

The existing vertical slot fishway has a documented passage efficiency that is wholly inadequate relative to even a fraction of these populations. A 2022 river herring telemetry study showed an entrance efficiency of only 37.5% and an overall internal effectiveness of 33.3%.[4] No documented American Shad have passed the existing fishway in any reliable numbers, with the single best year on record — approximately 1,000 shad in 2016 — occurring only when Unit 1 was taken offline

for maintenance.[4] This anecdote is not merely illustrative; it is diagnostic. It reveals that the existing powerhouse operations are themselves a primary source of passage failure.

III. COMMENTS ON SPECIFIC UPSTREAM FISH PASSAGE ALTERNATIVES

A. Alternative U1: Modification of the Existing Vertical Slot Fishway

BWPH rates Alternative U1 as having "Low/Moderate" effectiveness,[4] and FTA agrees that this rating likely overstates the potential improvements achievable through modification of the existing facility. However, FTA is concerned that U1 is being preserved in the analysis matrix in a way that may allow BWPH, at a later phase, to argue that modest improvements to the existing fishway satisfy the Commission's fish passage mandate. That outcome would be inconsistent with the Federal Power Act and with the 2020 NOAA Comprehensive Plan.[1]

The existing fishway suffers from at least three interrelated and largely structural deficiencies that modification cannot meaningfully address:

- Inadequate slot width. The existing fishway uses 11-inch slots, significantly below the USFWS minimum recommendation of 18 inches for American Shad;[5] NMFS has stated it would prefer 24-inch slots at a first-dam-on-the-river site, which the available footprint cannot accommodate.[4]
- Insufficient attraction flow. The existing system delivers 100 cfs total, against a USFWS guideline of approximately 375 cfs (5% of station capacity).[5] The geometry of the existing facility makes it physically infeasible to achieve this level through modifications alone.[4]
- Turbine interference at the entrance. Camera observations documented by researchers at Bowdoin College show a "curtain" of bubbles and turbulence generated by Unit 1's discharge that disrupts fish orientation and prevents entry to the fishway.[4] The dramatic increase in American Shad passage when Unit 1 was offline in 2016 is compelling empirical evidence that the powerhouse itself is a very significant barrier — not the fishway design alone.[4]

FTA concurs with MDMR's position that modifications to the existing fishway have not been demonstrated to address current passage impacts.[3] U1 should remain in the analysis only as a baseline for comparison, not as a standalone solution capable of meeting any reasonable performance standard for the design populations identified above.

B. Alternative U2: New Vertical Slot Fishway

FTA supports carrying Alternative U2 forward into Phase 2 feasibility analysis, but has significant concerns about both its design parameters and the process by which it is being developed. NMFS has stated a preference for 24-inch vertical slots at a first-dam-on-the-river site,[4] while the current conceptual design uses 18-inch slots per USFWS guidance,[5] which the available footprint constrains to an excessive number of switchbacks. MDMR has specifically flagged the number of switchbacks as a concern for American Shad passage effectiveness.[3]

The most operationally consequential problem with U2 as currently conceived is that it requires full demolition of the existing fishway before construction can begin, taking the existing passage facility offline for multiple passage seasons.[4] MDMR has specifically requested that BWPH

provide a plan for temporary upstream passage during any construction period.[3] FTA strongly supports this request. No new license should permit the elimination of existing upstream passage capacity — however inadequate — without a contemporaneous plan to restore or replace it.

FTA further notes that entrance location for U2 must not be finalized before the results of the Project Interaction Study are available. As noted in Section IX below, the Commission's April 17, 2026 Study Plan Determination confirmed that Phase 2 of the Project Interaction Study will proceed during the spring 2026 passage season as originally approved, ensuring that critical behavioral data will be available before the Final License Application is filed. MDMR has reported observational evidence suggesting that American Shad approach the powerhouse area and then travel counterclockwise past the current fishway entrance without entering[3] — exactly the behavioral pattern that Phase 2 tagging data is designed to confirm and quantify.

C. Alternative U3: New Fish Lift

FTA supports carrying Alternative U3 forward into Phase 2 feasibility analysis. NMFS indicated a preference for this option at the March 5, 2026 meeting.[4] However, FTA agrees with MDMR's concern that fish lifts are non-volitional and are subject to operational shutdowns during portions of the passage season, reducing their reliability relative to passive fishways.[3] As with U2, entrance siting for U3 must await the Project Interaction Study results. MDMR has suggested investigating "over-unit entrances" if behavioral data supports that approach,[4] and that determination cannot be made without Phase 2 empirical data.

D. Alternative U4: FishHeart System

FTA agrees with MDMR's April 9, 2026 assessment that the FishHeart system is not appropriate as a permanent standalone solution for upstream passage at the Brunswick Project. MDMR has stated it is "not aware of any information to suggest that this system is effective for the target species and numbers of fish (i.e., millions) that could be present annually downstream of the project."[3] If U4 is retained in the matrix at all, it should be evaluated only as a potential interim measure during construction of a permanent facility, not as a substitute for one, and any such evaluation must be accompanied by clearly stated performance standards, monitoring requirements, and contingency measures.

IV. NATURE-LIKE FISHWAY ALTERNATIVES MUST BE CARRIED FORWARD

FTA's most significant concern with the upstream alternatives matrix is the apparent effort by BWPH to screen out the Nature-Like Fishway (NLF) alternatives before a rigorous feasibility analysis has been conducted. The Revised Study Plan, in section 5.2.2, explicitly committed to Phase 1 providing "a comprehensive report of potential measures for upstream and downstream passage at the Project without discussion of costs or implied preferences."[2] BWPH must be held to that commitment.

At the March 5 meeting, BWPH presented two NLF concepts:

- A right-bank bypass channel (100 feet wide, approximately 1,800 feet long, 2.2% slope), requiring placement on private parcels and partial demolition of the left dam abutment; and[4]

- An in-channel, river-left NLF via Shad/Goat Islands (approximately 2,560 feet long, 1.6% slope), remaining primarily within the existing river channel without private land acquisition.[4]

MDMR specifically noted that the in-channel option "could be constructed completely within the river channel" and that "there is no reason to remove it from consideration at this stage."[3] NMFS requested at the March 5 meeting that if either NLF option is screened out, the report must document precisely why, with supporting drawings and constraints analysis.[4] FTA echoes this request and asks the Commission to require BWPH to carry both NLF options forward into Phase 2 for a full costed feasibility assessment.

An NLF at this site would represent the most ecologically effective passage solution — providing truly volitional passage for all species, including those difficult to attract to mechanical fishways. FTA notes that BWPH raised the NLF entrance's distance from the powerhouse as an attraction flow concern. That concern is precisely the kind of site-specific hydraulic and behavioral question that the Project Interaction Study and CFD Modeling Study are designed to answer. As confirmed in Section IX below, Phase 2 of the Project Interaction Study will proceed in spring 2026 as approved, making the critical behavioral data available to inform the NLF feasibility analysis before the Final License Application is filed. Vladimir Douhovnikoff of FTA specifically proposed the river-left in-channel NLF option during the March 5 meeting, and NMFS expressed support for advancing it to feasibility assessment.[4]

V. DAM REMOVAL AS A BASELINE COMPARATOR SHOULD NOT BE CATEGORICALLY EXCLUDED

At the March 5, 2026 meeting, BWPH's representative stated unequivocally that "Brookfield is not going to be removing the dam" and declined to include dam removal in the upstream alternatives matrix.[4] FTA recognizes that both BWPH and via earlier rulings at the scoping stage, FERC specifically addressed dam removal in both the Scoping Document and the December 30, 2024 Study Plan Determination, finding it unnecessary given that reasonable mitigation measures can be implemented. FTA respectfully but firmly disagrees with this position and is again stating it for the docket record.

As NMFS requested at the January 27, 2026 downstream alternatives meeting, and as FTA reiterated in its February 27, 2026 filing, dam removal should be included in the analysis matrix as a baseline comparator — not because FTA demands that the dam must be removed, but because an alternatives analysis that excludes the no-dam baseline cannot credibly evaluate the relative costs, benefits, and effectiveness of the options that remain.[6] This is basic comparative analysis methodology, and it is the approach employed in the Worumbo Dam relicensing (FERC Docket P-3428).

VI. THE ANALYSIS MUST EVALUATE COMBINATIONS OF PASSAGE MEASURES

MDMR's April 9, 2026 comments specifically urge BWPH to evaluate alternatives that include "multiple measures to provide safe, timely, and effective passage at the project," offering examples such as providing two fishways, or combining a new fishway with turbine turndowns during the passage season.[3]

FTA strongly supports this recommendation. The Brunswick Dam is the head-of-tide facility on a 3,450 square-mile watershed that the 2020 NOAA Comprehensive Plan identifies as capable of supporting millions of river herring and tens of thousands of American Shad.[1] The existing fishway's documented 33% internal effectiveness rate for river herring[4] — even setting aside its inadequate attraction flow and entrance performance — illustrates why a single-alternative approach will be insufficient. FTA asks the Commission to require BWPH's Phase 2 feasibility report to explicitly evaluate combinations of measures, including a new fishway combined with turbine turndowns, a nature-like fishway combined with a powerhouse passage structure, and any permanent fishway combined with interim eel passage measures during construction.

VII. INTERIM AMERICAN EEL PASSAGE CANNOT BE DEFERRED

FTA is deeply concerned by BWPH's statement that it "will not be operating the temporary eel ramps" at the Brunswick Project — despite the project's own visual survey data documenting 58,272 American eels at the Brunswick Dam across 12 survey dates during the expected upstream passage period.[7] BWPH's stated rationale — that eel ramps would cause "disruptions to the Project's normal operations" — is precisely backwards. It is the Project's operations that are disrupting tens of thousands of eels from completing their natural life cycle.

MDMR has specifically requested that BWPH voluntarily operate and maintain a temporary eel trap at the project until a new license is issued and permanent upstream eel passage is implemented.[8] FTA supports this request and asks the Commission to require it. FTA also notes MDMR's concern that the process by which eel study ramps were placed was inadequate, occurring without adequate prior discussion with and notice to the agencies,[8] and urges that any future consultation on interim eel passage measures include a dedicated meeting with adequate notice to all parties.

VIII. ALTERNATIVES MUST NOT BE NARROWED BEFORE EMPIRICAL DATA IS AVAILABLE

The upstream alternatives matrix presented at the March 5 meeting was developed before the results of the most critical site-specific studies are available. As NMFS noted in its February 25, 2026 ISR comments, both the CFD Modeling Study and the Phase 2 Diadromous Fish Behavior Study were either in progress or deferred to 2026 at the time of the ISR.[9] These studies are specifically designed to characterize the hydraulics of the tailrace, the location and behavior of fish congregating below the dam, and the effectiveness of attraction flows — exactly the data needed to make credible decisions about which upstream alternatives to carry forward.

Every alternative in the upstream matrix depends on empirical behavioral data for its key design parameters. Alternatives U2 and U3 both reference the Project Interaction Study and CFD Modeling Study to determine entrance locations. The NLF options depend on data about fish congregation areas below Shad Island and the left channel to evaluate whether attraction to an entrance 1,100 feet from the powerhouse is feasible. Even U1's modification assumptions depend on CFD results to determine whether tailrace hydraulics can be improved to reduce the interference effect identified at the existing entrance. Allowing the alternatives to be narrowed now — before any of this data exists — risks locking in design assumptions that are later contradicted by the evidence.

IX. THE COMMISSION'S APRIL 17, 2026 STUDY PLAN DETERMINATION

FTA commends the Commission for its April 17, 2026 Study Plan Determination denying BWPH's April 6, 2026 request to postpone Phase 2 of the Diadromous Fish Behavior, Movement, and Project Interaction Study from the spring 2026 passage season to spring 2027. FTA concurs fully with the Commission's finding that, because in-water construction at the Frank J. Wood bridge is not expected to occur during the 2026 spring passage season and the existing bridge infrastructure is likely to have a negligible effect on fish behavior, movement, and telemetry receiver locations, there is no basis to delay the study. The Commission's determination that Phase 2 must proceed in the spring 2026 passage season as originally approved is precisely the outcome that NMFS and FTA each urged in their respective filings.

FTA also acknowledges the important contribution of NMFS in responding swiftly and substantively to oppose BWPH's postponement request. NMFS's April 10, 2026 filing directly rebutted the factual basis for BWPH's request, demonstrated that in-water construction had effectively concluded before the filing was made, and identified the postponement's fundamental inconsistency with the ILP framework. The Commission's determination rested on that record, and FTA is gratified that NMFS's timely engagement was reflected in the outcome. Phase 2 of the Project Interaction Study is the empirical foundation for virtually every critical decision in the upstream alternatives analysis, and its timely completion in spring 2026 is essential to the integrity of this relicensing proceeding.

X. THE LICENSEE CANNOT UNILATERALLY CONSTRAIN THE SCOPE OF THE ALTERNATIVES ANALYSIS

The Commission's April 17, 2026 Study Plan Determination also reflects a broader pattern in BWPH's conduct of this proceeding: on April 6, 2026, BWPH requested postponement of the study most critical to upstream passage design, on the basis of factual claims that NMFS rebutted directly and that the Commission found did not constitute good cause for modification.

The ILP process exists precisely to ensure that the alternatives analysis is comprehensive, objective, and informed by the best available science. The Revised Study Plan explicitly committed to Phase 1 providing a comprehensive alternatives report "without discussion of costs or implied preferences."[2] FTA asks the Commission to enforce this commitment and to remind BWPH that the scope of the alternatives analysis, and the timing of the studies that inform it, are determined by the Commission — not by the Licensee.

XI. CONCLUSION AND REQUESTED RELIEF

For the reasons set forth above, FTA respectfully requests that the Commission:

- FTA notes with approval the Commission's April 17, 2026 denial of BWPH's request to postpone Phase 2 of the Diadromous Fish Behavior, Movement, and Project Interaction Study, and requests that the Commission confirm that Phase 2 will proceed during the spring 2026 passage season as approved by the Study Plan Determination;
- Require BWPH to incorporate the MDMR-calculated design populations (171,125 American Shad; 1,008,202 Blueback Herring; 7,728,805 Alewife; 600 Atlantic Salmon) as the standard to be sought for all upstream fish passage alternatives analyses;[3]

- Require BWPH to carry both Nature-Like Fishway alternatives (right-bank bypass and in-channel river-left) forward into Phase 2 feasibility analysis, with a documented explanation including drawings and engineering constraints if either is subsequently screened out;
- Require BWPH to include dam removal as a baseline comparator in the alternatives analysis matrix, consistent with NMFS's request and standard environmental review methodology;
- Require BWPH to evaluate combinations of multiple passage measures in Phase 2, including new fishways combined with operational measures such as turbine turndowns;
- Require BWPH to immediately implement interim upstream eel passage measures (temporary eel ramps) consistent with MDMR's request, with proper consultation on placement and operation;[38]
- Require BWPH to provide adequate time (minimum 30 days) for stakeholder review and comment on future alternatives matrices, feasibility reports, and meeting summaries;
- Require BWPH to provide a plan for interim upstream fish passage during any construction period that would require taking the existing fishway offline;
- Ensure that no alternatives are narrowed or screened out before the results of the Project Interaction Study and CFD Modeling Study are available and shared with resource agencies and stakeholders;[9]
- Require BWPH to deliver complete, not merely preliminary, results in the January 2027 Updated Study Report, with sufficient time for agency and stakeholder review before the Draft License Application is prepared.[911]

FTA remains committed to working constructively with the Licensee, FERC, resource agencies, and other stakeholders to achieve a new license for the Brunswick Project that genuinely serves the public interest and the ecological and cultural legacy of the Androscoggin River. This will require bold thinking and honest analysis — not a predetermined outcome, and not a process where empirical studies are deferred until after the key decisions have already been made. The diadromous fish of the Androscoggin have waited 47 years for this relicensing. The record must reflect all options, all data, and all voices.

Respectfully submitted,

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SOURCES

1. NOAA Fisheries, Greater Atlantic Regional Fisheries Office. *Androscoggin River Watershed Comprehensive Plan for Diadromous Fishes*. National Oceanic and Atmospheric Administration (2020). [Cited at p. 71.]

2. Brookfield White Pine Hydro LLC. *Brunswick Hydroelectric Project (FERC No. P-2284) Revised Study Plan*. Filed December 2, 2024.

3. Maine Department of Marine Resources. *Comments on Brunswick Hydroelectric Project (FERC No. P-2284) Upstream Fish Passage Alternatives*. Filed April 9, 2026.

4. Brookfield White Pine Hydro LLC. *Brunswick Hydroelectric Project (FERC No. P-2284) – Upstream Fish Passage Alternatives Meeting Summary (Meeting of March 5, 2026)*, including Attachment 1: Alternatives Matrix and Conceptual Sketches. Filed March 31, 2026. [The Alternatives Matrix reports results of a 2022 river herring telemetry study conducted by Normandeau Associates, Inc. (NAI).]

5. U.S. Fish and Wildlife Service. *Fish Passage Engineering Design Criteria*. Northeast Regional Office, Hadley, Massachusetts (2019).

6. Brookfield White Pine Hydro LLC. *Brunswick Hydroelectric Project (FERC No. P-2284) – Downstream Fish Passage Alternatives Meeting Summary (Meeting of January 27, 2026)*. Filed February 9, 2026.

7. Brookfield White Pine Hydro LLC. *Brunswick Hydroelectric Project (FERC No. P-2284) – Response to Comments on Initial Study Report*. Filed April 2, 2026.

8. Maine Department of Marine Resources. *Comments on Brunswick Hydroelectric Project (FERC No. P-2284) Initial Study Report*. Filed March 2, 2026.

9. National Marine Fisheries Service. *Comments on Brunswick Hydroelectric Project (FERC No. P-2284) Initial Study Report*. Filed February 25, 2026.

10. Brookfield White Pine Hydro LLC. *Brunswick Hydroelectric Project (FERC No. P-2284) – Request to Postpone Phase 2 of the Diadromous Fish Behavior, Movement, and Project Interaction Study*. Filed April 6, 2026.

11. National Marine Fisheries Service (Julia E. Crocker, Chief, ESA Fish, Ecosystems, and Energy Branch, Protected Resources Division). *Brunswick Hydroelectric Project (FERC No. 2284) – Diadromous Fish Behavior, Movement, and Project Interaction Study Schedule*. Filed April 10, 2026.