REVIEW OF APPLICATION FOR CERTIFICATION BY THE LOW IMPACT HYDROPOWER INSTITUTE OF THE SKELTON PROJECT, FERC No. 2527

Prepared by Stephen Byrne
May 14, 2025

I. INTRODUCTION

This report summarizes the review findings of the application submitted by Brookfield White Pine Hydro, LLC ("Brookfield", "Applicant", or "Licensee") to the Low Impact Hydropower Institute (LIHI) for certification of the Skelton Hydroelectric Project (FERC No. 2527, "Project"). The Skelton Project is a 21.6-MW facility that operates in a seasonal run-of-river mode with minimum flow releases of 400 to 600 cfs depending on the time of year. The Project is located on the Saco River at approximate river mile 16[1] in York County, Maine. On March 5, 2025, LIHI received a complete application package for certification of the Project. This current review was conducted using the 2nd Edition LIHI Certification Handbook, Revision 2.05.

II. PROJECT'S GEOGRAPHIC LOCATION

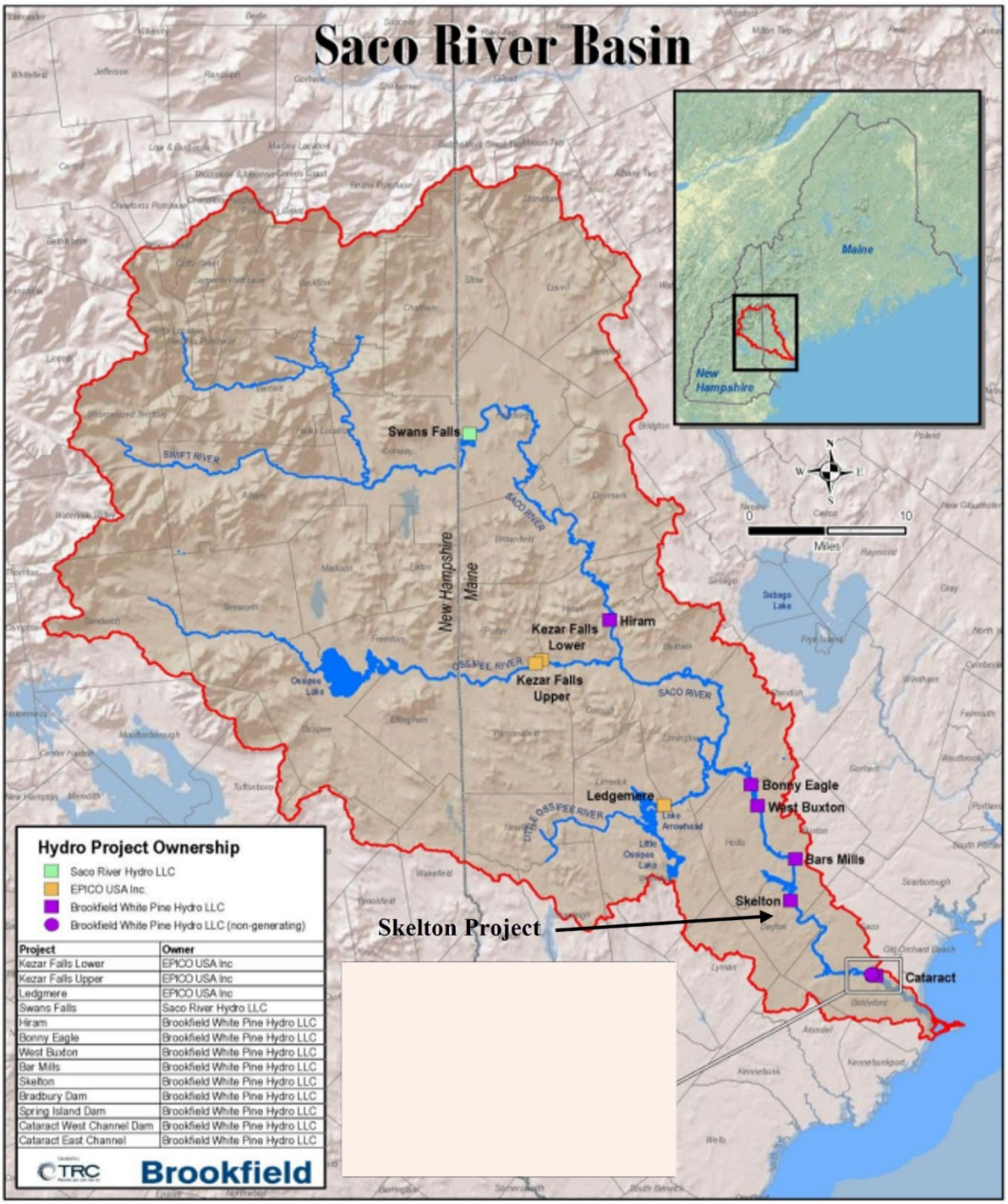
The Skelton Project is located on the 136-mile-long Saco River in York County, Maine (Figure 1). The Skelton Project dam is the 3rd dam on the Saco River upstream of the river mouth at Camp Ellis/Hills Beach and the 6th dam downstream from the river's headwaters[2]. The Project dam and powerhouse are located in the Towns of Buxton and Dayton, Maine. The impoundment is located in the Towns of Buxton, Dayton, and Hollis. At the Project, the total drainage area is approximately 1,622 square miles (mi^2), which is approximately 95% of the drainage area at the Saco River's mouth (1,703 mi^2) where it enters Saco Bay.

It should be noted that Brookfield plans to surrender the FERC license and decommission the next upstream dam, Bar Mills (FERC No. 2194), located at river mile 20.

III. PROJECT AND IMMEDIATE SITECHARACTERISTICS

The Skelton dam was originally constructed between 1947 and 1949. The dam forms a riverine impoundment approximately 2.8 miles long and up to 0.2 miles wide. The impoundment includes approximately 2.1 miles of Cook's Brook at its confluence with the Saco River.

[1] Various relicensing documents report the dam being located at 17.1 miles above the mouth of the river at Camp Ellis-Hills beach.
[2] Note that the downstream Cataract Project, LIHI #169 (FERC No. 2528) consists of 2 pairs of dams, one pair (Spring Island Dam and Bradbury Dam) upstream from the other pair (West Channel Dam and East Channel Dam).



Project	Owner
Kezar Falls Lower	EPICO USA Inc
Kezar Falls Upper	EPICO USA Inc
Ledgmere	EPICO USA Inc
Swans Falls	Saco River Hydro LLC
Hiram	Brookfield White Pine Hydro LLC
Bonny Eagle	Brookfield White Pine Hydro LLC
West Buxton	Brookfield White Pine Hydro LLC
Bar Mills	Brookfield White Pine Hydro LLC
Skelton	Brookfield White Pine Hydro LLC
Bradbury Dam	Brookfield White Pine Hydro LLC
Spring Island Dam	Brookfield White Pine Hydro LLC
Cataract West Channel Dam	Brookfield White Pine Hydro LLC
Cataract East Channel	Brookfield White Pine Hydro LLC

Figure 1. – Skelton Project Location

The Project includes a concrete gravity and earth embankment dam, about 1,695 feet long, topped with a roadway, consisting of: (1) an earthen embankment section, 1,200 feet long by 59 feet high, with a crest elevation of 143.0 feet (USGS); (2) a west bulkhead and spillway gate section, about 170 feet long by 75 feet high, surmounted with four Tainter gates, each 32.5 feet wide by 20 feet high, with a sill elevation of 108.0 feet; (3) an intake structure, 107 feet long by 146 feet wide, has two inflow openings, protected by trashracks of 5/8-inch steel bars with 3-inch openings; (4) a fishway and sluice section, about 30 feet long; (5) an east bulkhead and spillway gate section, about 188 feet long by 75 feet high, surmounted with four Tainter gates, each 32.5 feet wide by 20 feet high, with a sill elevation of 108.0 feet; and (6) a concrete retaining wall, traversing along the western embankment about 763 feet long, with a crest elevation of 143.0 feet (Figures 2-5).

Figure 2. – Photograph of Skelton Project (aerial) showing the Impoundment, Dam, Powerhouse, and Tailrace.

Figure 3. – Downstream face of the dam.

Figure 4. – Upstream eel lift facility.

Figure 5. – Upstream eel lift facility.

IV. ZONES OF EFFECT AND STANDARDS SELECTED

Three Zones of Effect (ZOEs) were designated by the Applicant and were determined to be appropriate (Figure 6). Zone 1 includes the regulated river reach upstream of the impoundment, Zone 2 includes the Project impoundment, and Zone 3 includes the tailrace and downstream reach. Table 1 shows the Standards selected for each criterion for the three ZOEs. Where applicable, reviewer recommendations for alternate standards are shown in **red**.

Table 1. Standards Matrix for the Skelton Project

	Zone:	1: Upper Regulated Reach	2: Impoundment Reach	3: Tailrace Reach
	River Mile Extent:	RM 19.8 to RM 18	RM 18 to RM 16.1	RM 16 to RM 15.6
Criterion		**Standard Selected**	**Standard Selected**	**Standard Selected**
A	**Ecological Flows**	~~1~~, **2**	~~1~~, **2**	2
B	**Water Quality**	2	2	2
C	**Upstream Fish Passage**	1	1	2
D	**Downstream Fish Passage**	1	2	1
E	**Shoreline and Watershed Protection**	1	2	1
F	**Threatened and Endangered Species**	2	2	2
G	**Cultural and Historic Resources**	2	2	1
H	**Recreational Resources**	1	2	2

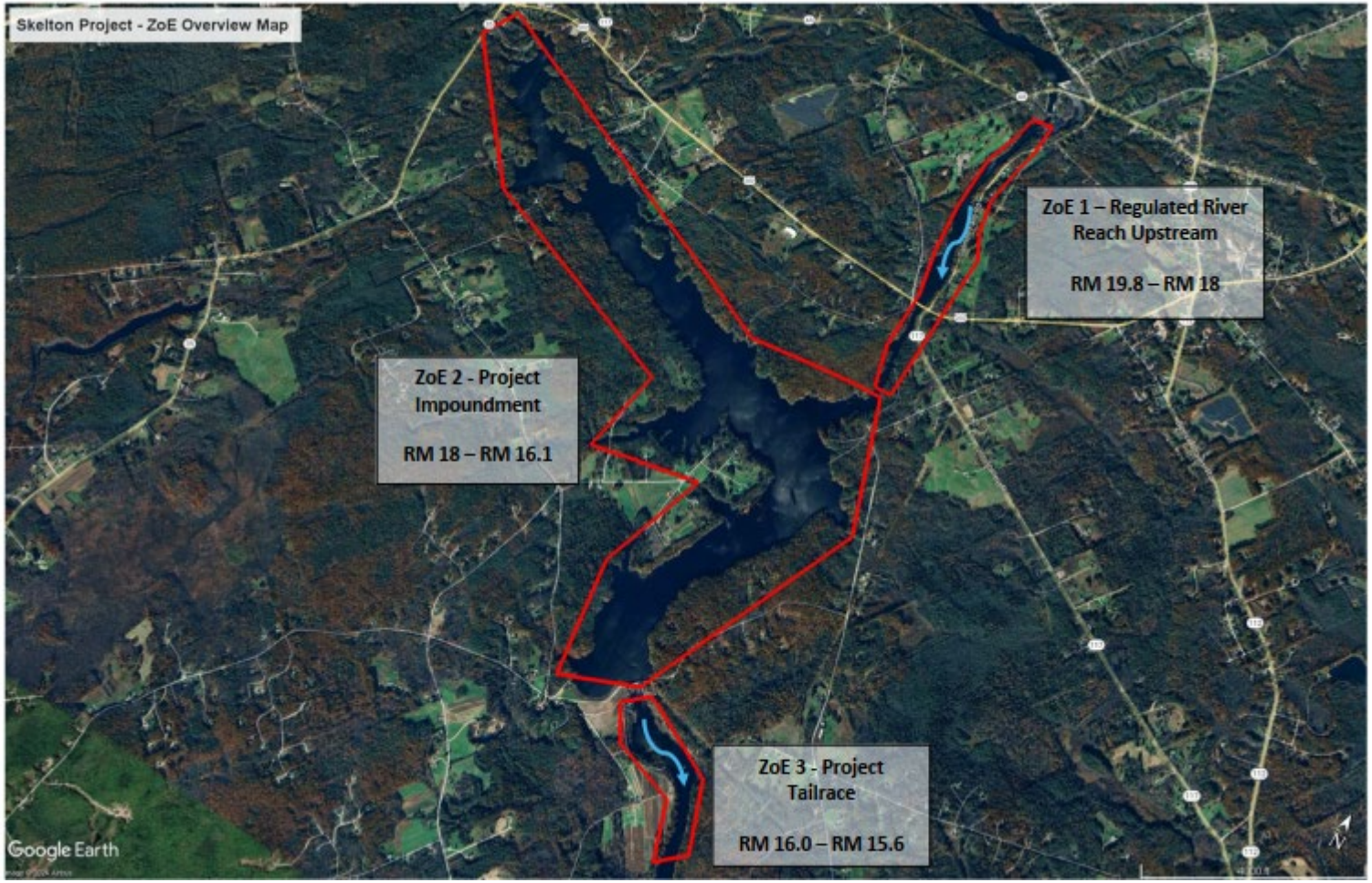


Figure 6 – Skelton Project Zones of Effect.

V. REGULATORY AND COMPLIANCE STATUS

The Skelton Project was issued an License Order from FERC on February 26, 1998 and was granted a Section 401 Water Quality Certificate (WQC) from the Maine Department of Environmental Conservation (Maine DEC) on September 4, 1997. The Project additionally operates consistently with the 1997 Instream Flow Agreement and the 1994 Saco River Fish Passage Agreement which was amended in 2007 and 2019.

VI. PUBLIC COMMENT RECEIVED OR SOLICITED BY LIHI

The application was posted for public comment on March 6, 2025, and the notice was forwarded to agencies and stakeholders listed in the application. The deadline for submission of comments was May 5, 2024. Trout Unlimited filed comments on March 26 and April 18, 2025. Brookfield filed responses to TU's March 26 comments on April 29, 2025 (see Appendix A). The April 18 comments deal primarily with the Hiram Project (located 30 river miles upstream of the Skelton Project) and are not addressed herein. Based on the completeness of the application and documents available on the FERC elibrary, I did not need to contact resource agencies.

VII. DETAILED CRITERIA REVIEW

A. ECOLOGICAL FLOW REGIMES

Goal: The flow regimes in riverine reaches that are affected by the facility support habitat and other conditions suitable for healthy fish and wildlife resources.

Assessment of Criterion Passage: The Applicant selected Standard A-1, Not Applicable/De Minimis Effect for Zones 1 and 2, and Standard A-2, Agency Recommendation for Zone 3. For reasons discussed below, this review finds that standard A-2 is appropriate for all Zones.

The Project operates in a seasonally-modified run-of-river mode with varying seasonal minimum flow and impoundment levels. Per Article 401 of the FERC License and Condition 1 of the WQC, the Licensee is required to limit impoundment level fluctuations to one foot from April 1 through June 30 and four feet from July 1 through March 1. Flows into Zone 1 are provided by the mainstem of the Saco River, with backwater influences from the Skelton Impoundment. Therefore, Project operations as regulated by the FERC License and the WQC affect the hydrology in Zone 1.

The Project impoundment is 2.8 miles long with a surface area of 488 acres and 1,720 acre-feet of usable storage with elevation bandwidth between 123.5 and 127.5 feet. The modified run-of-river operations keep the impoundment level relatively stable. The fluctuation regime for the Skelton Project was determined in part due to its benefits to the existing wetlands and reservoir

wildlife within the Project boundary.

The water level management in the impoundment as required by FERC Article 401 and WQC Condition 1 are derived from the Instream Flow Agreement, which included signatories from US Fish and Wildlife Service (FWS), Maine Department of Inland Fisheries and Wildlife (Maine DIFW), Maine Department of Marine Resources (Maine DMR), Saco River Salmon Club (SRSC), Atlantic Salmon Federation (ASF), Maine Chapter of the Atlantic Salmon Federation (Maine CASF), Maine Department of Environmental Protection (Maine DEP), Maine Atlantic Salmon Authority (Maine ASA), Maine State Planning Office (Maine SPO), Trout Unlimited (TU), Maine Council of Trout Unlimited (Maine CTU), American Rivers, New Hampshire Department of Fish and Game (New Hampshire FGD) and the Cities of Saco and Biddeford.

FERC License Article 404 limits scheduled drawdowns to no more than 8.5 feet below the normal full pool, for up to 48 hours, and only once every three to four years between August 15 to October 15 when water temperature does not exceed 20°C. Brookfield indicates in its LIHI application that there have not been any drawdowns near 8.5 feet since they acquired the Project in 2013, that fish stranding surveys would be conducted for any large drawdowns, and that public outreach would take place if a large drawdown was needed during the recreation season. Target drawdown and refill rates generally range between 0.1 and 0.3 feet per hour depending on Project inflows. These provisions ensure that any necessary drawdowns have a minimal effect on aquatic and recreational resources in the impoundment and that designated uses are maintained.

FERC License Article 402 and WQC Condition 3 require the seasonal minimum flow releases as shown in Table 2. The seasonal minimum flows are passed through a combination of spills and powerhouse generation. These minimum flows are derived from the Saco River Instream Flow Agreement and were considered by the signatories listed above to have beneficial effects on water quality and aquatic habitat in the reach. Impoundment and minimum flow requirements were based on objectives that included: improving habitat for anadromous species (focused on the upstream reach from Bonny Eagle to Hiram); providing/improving zone of passage and clupeid spawning and rearing below Skelton; contribute to restoration of the natural hydrology and riverine ecosystems by reducing the difference between minimum and maximum flows; and meeting state water quality standards below Bonny Eagle and Skelton.

Under this flow regime, water velocities would increase, and stagnation and retention times would decrease. Macroinvertebrate species, especially those of limited mobility, would benefit from the increased flows and dissolved oxygen (DO) levels would be improved.

Table 2. Seasonal minimum flow requirements at Skelton Project.

Period	Flow Requirement
April 1 through June 30	Run-of-river with 1 foot fluctuation from normal full pond.
July 1 through September 30	400 cfs release until impoundment is drawn down to the 4-foot limit from normal full pond, then outflow equals inflow.
October 1 through November 15 (subject to agency approved alternative 6-week span)	the minimum flow increases to 600 cfs or inflow, whichever is less.
November 16 through March 31	400 cfs release until impoundment is drawn down to the 4-foot limit from normal full pond, then outflow equals inflow.

License Article 403 required a plan to monitor and report to resource agencies, reservoir levels and minimum flow releases to "*ensure that the fish resources in the Skelton impoundment and downstream are adequately protected under the required reservoir water level regime and the minimum flow release regime, respectively*."[3] Deviation reports are filed with FERC and the resource agencies.

Trout Unlimited commented in its March 26, 2025 letter that there are no USGS gages[4] at the Skelton Project that can accurately gage inflows and outflows, and that LIHI should not certify the Project until it can verify, based on requested hours flow data, that the minimum flow requirements in Table 2 are met. However, compliance with the impoundment level requirements and the minimum flow requirements is monitored via the Licensee's minimum flow and pond level monitoring plan, approved by FERC on November 12, 1998. Since 2014, three deviations from the required minimum flow have occurred; September 9, 2014 for 1 minute due to equipment malfunction and unit trip, August 13, 2016 for 15 hours due to low inflow, and June 20, 2020 for 24 minutes due to a station trip caused by the local utility's power outage. On each occasion, the Licensee informed the resources agencies and FERC; and on each occasion, FERC concluded that violations of the License had not occurred.

Based on my review of the application, supporting documentation, and publicly available information, the Project is operated in a manner that does not adversely affect fish and wildlife resources under the limited flow regime. As such, the Project satisfies the Ecological Flow Regimes criterion.

[3] Text from License Article 403.
[4] The only USGS stream gage on the Maine section of the Saco River is located well upstream of the Project, between Bonny Eagle and Hiram dams. See Saco River at Cornish, Maine - 01066000

B. WATER QUALITY

Goal: Water Quality is protected in waterbodies directly affected by the facility, including downstream reaches, bypassed reaches, and impoundments above dams and diversions.

Assessment of Criterion Passage: The Applicant appropriately selected Standard B-2, Agency Recommendation for all Zones.

The Saco River within the Project boundary is not listed on Maine DEC's current list of impaired waters and is designated as Class A water. Class A waters must be of such quality that they are suitable for the designated uses of drinking water after disinfection; fishing; agriculture; recreation in and on the water; industrial process and cooling water supply; hydroelectric power generation, and as habitat for fish and other aquatic life. The habitat must be characterized as natural. DO concentrations must be no less than 7 ppm or 75% saturation, whichever is higher, except from October 1 to May 14, in order to ensure spawning and egg incubation of indigenous fish species. Bacteria concentrations (E. coli) must not exceed a geometric mean of 64 colony forming units (CFU) or most probable number (MPN) per 100 millimeters in a 90-day interval or 236 CFU or MPN per 100 milliliters in more than 10% of the samples in any 90-day interval.

As discussed above, the drawdown restrictions required by FERC License Article 404 and the additional environmental measures implemented by the Licensee (a provision for fish salvage surveys and public communication for any large drawdowns made during the recreation season, and slow drawdown and refill rates) allow the designated uses of the impoundment to be maintained. Additionally, the run-of-river operations minimize the Project's effects on water quality in all Zones.

FERC License Article 408 and WQC Condition 5 required the Licensee to monitor DO in the Saco River downstream of the Skelton Project to determine whether DO concentrations are in compliance with applicable state water quality standards under the minimum flow regime required by Article 402. On June 18, 2025 Maine DEP provided a letter to the Applicant, confirming that the 1997 WQC remains valid and in effect, and that the Project is in compliance with it.

The periods of naturally low flow and high river temperature that create suitable sampling conditions typically occur in late July and August. Therefore, DO sampling was initially performed twice daily from July through September in 2001. The timing was intended to capture an extended warm period and when the station was ideally trying to pass a steady minimum flow of 400 cfs for as long as the limited Skelton pond storage could maintain it. In its letter filed April 30, 2002, FERC acknowledged the water quality report and noted that the data showed that even under the low flow conditions caused by a drought during the monitoring, DO

concentrations met the Class A standards. Maine DEP, however, had concerns with the monitoring data and after meetings with NextEra in 2002 (the Licensee at the time) recommended additional monitoring in the summer of 2003 to capture more representative conditions. After a series of both draught and high flow summer conditions between 2003 and 2009, representative conditions finally became available during the summer of 2010. Maine DEP indicated in its letter filed January 11, 2011 that the 2010 monitoring data conclusively demonstrated that Class A dissolved oxygen standards were being met below the Skelton Project during periods of both generation and non-generation under critical low flow and high water temperature conditions.

FERC License Article 409 and WQC Condition 6 required the Licensee to monitor the macroinvertebrate community in the Saco River downstream of the Skelton Project to determine whether the macroinvertebrate community meets applicable aquatic life standards under the minimum flow regime required by Article 402. The study transect was located within the first 1,000 feet downstream of the powerhouse and was conducted from July to September of 2001. The results showed that the habitat characteristics and aquatic life criteria for the State of Maine were being met at the Project.

Based on my review of the application, supporting documentation, and publicly available information, the Project is operated in a manner that does not adversely affect water quality in the impoundment or downstream reach as confirmed by Maine DEP. As such, the Project satisfies the Water Quality criterion.

C. UPSTREAM FISH PASSAGE

Goal: The facility allows for the safe, timely, and effective upstream passage of migratory fish. This criterion is intended to ensure that migratory species can successfully complete their life cycles and maintain healthy populations in areas affected by the facility.

Assessment of Criterion Passage: The Applicant selected Standard C-1, Not Applicable/De Minimis Effect for Zones 1 and 2 and Standard C-2, Agency Recommendation for Zone 3.

There are no Project-related barriers to upstream fish movement in the Impoundment Zone or the Upstream Regulated Riverine Reach Zone. The Project waters support a mix of coldwater and warmwater fish species. The Applicant presents a list of fishes in the Project area in Section 3.4 of its LIHI application. The downstream Cataract Project (LIHI #169) dams all have upstream passage facilities for anadromous species as well as upstream eel ladders.

Upstream passage requirements were developed in the 1994 Saco River Fish Passage Agreement and subsequently incorporated into the FERC License and WQC. The goal of the 1994 passage

agreement was to restore the Saco River anadromous fish community by establishing self-sustaining runs of Atlantic salmon upstream of the Swans Falls Project,[5] and introduce self-sustaining runs of American shad and river herring to upstream of the Bonny Eagle Project (LIHI #182) located at river mile 26 (see Figure 1).

Per Article 406 of the FERC License and WQC Condition 4, upstream passage for Atlantic salmon, American shad, blueback hearing and sea lamprey is provided via a fish lift that includes a water attraction system, a fish crowder, hopper/elevator, and a truck and trap holding system. These facilities were completed in 2001. Upstream fish passage operations are performed in close coordination with the fisheries agencies, with regular reports on passage numbers distributed throughout the passage season.[6] The majority of river herring and American shad captured at the Skelton fish lift are passed directly into the impoundment. Some river herring and all Atlantic salmon are trucked from the Skelton fish way, via trap and truck, by Brookfield environmental staff to upstream spawning locations as requested by State and Federal fisheries agencies as conditions allow.

In 2007 the Saco River Fish Passage Agreement was updated to incorporate provisions for upstream eel passage, which was subsequently required by the July 18, 2007 FERC Order Amending Article 406. The upstream eel facility consists of a roughened cement attraction water flow area on the west side of the Skelton spillway leading the juvenile eels to a three-foot long EnkaMat ramp and into an elevator tank with approximately 50-gallon capacity. The facilities have been operational since 2013.

Brookfield files annual Saco River Fish Passage Reports with FWS, NMFS, Maine DMR, Maine DEP, Maine DIFW, and FERC. Resource agency comments are incorporated into the final annual reports. Brookfield also meets with these resource agencies annually to discuss fish passage at the Skelton Project, along with its other projects on the Saco River. This approach allows for a river-wide fish passage program that is adaptively managed to maximize the probability of reaching the goal of the passage agreement.

Article 407 of the FERC License and WQC Condition 4 require Brookfield to conduct upstream passage effectiveness studies. Upstream effectiveness includes enumerating American shad, river herring, and Atlantic salmon passing at the Cataract fishway, then correlating these counts with the number of these fish captured at the Skelton fish lift. Brookfield noted in its LIHI application that upstream shad and herring effectiveness studies are scheduled to be conducted in the spring of 2025.

[5] The Swans Falls Project is a FERC – Exempt project located approximately 36.5 miles upstream of the Hiram Project (FERC No. 2530).
[6] The 2024 Annual Report can be found here: https://elibrary.ferc.gov/eLibrary/filelist?accession_number=20250331-5283&optimized=false&sid=fc86e56f-6f52-4ffc-a061-a2dafd1237fc

Trout Unlimited commented in its March 26, 2025 letter that Maine DMR trap count statistics continue to show no recovery of Atlantic salmon despite years of stocking by the Saco Salmon Restoration Alliance and Hatchery. In its response comments dated April 29, 2025, Brookfield noted that the Skelton Project upstream fish lift has been operating successfully for 22 years. On average, 2.4 Atlantic salmon have passed the Project annually since 2014. Since 2007, Brookfield has also distributed over $50,000 annually to a salmon enhancement fund and distributed it to where the FWS and Maine DMR find the most need. Historically, this money has been allocated to the FWS salmon hatchery, University of New England, or the Saco Salmon Restoration Alliance & Hatchery in an attempt to increase Saco salmon returns.

Trout Unlimited further comments that certification should be denied until the shad and herring passage effectiveness study is complete and actual passage counts of 8 Atlantic salmon and 8,996 American shad pass the Skelton Project for three successive years. While I agree that the results and implications of the passage effectiveness study will be valuable, they are not necessary to justify certification at this time, but a condition is recommended to ensure that LIHI is updated on the results of passage effectiveness studies.

Based on my review of the application, supporting documentation, and publicly available information, the Project does not adversely impact migratory fish species thus satisfies the Upstream Fish Passage criterion. However, because the upstream effectiveness studies are underway and the implications of their results could support modifications to passage at the Project, I am recommending a condition that requires Brookfield to file with LIHI the results of its studies, documentation of agency comments on the study results, and copies of all subsequent filings related to any passage-related modification required as a result of the effectiveness studies.

D. DOWNSTREAM FISH PASSAGE AND PROTECTION

Goal: The facility allows for the safe, timely, and effective downstream passage of migratory fish. For riverine (resident) fish, the facility minimizes loss of fish from reservoirs and upstream river reaches affected by Facility operations. Migratory species are able to successfully complete their life cycles and maintain healthy populations in the areas affected by the Facility.

Assessment of Criterion Passage: The Applicant appropriately selected Standard D-2, Agency Recommendation for the Impoundment Zone and Standard D-1, Not Applicable/De Minimis Effect for The Upstream Regulated Riverine Reach Zone and for the Downstream Zone.

Standard D-1, Not Applicable/De Minimis Effect is appropriate for Zones 1 and 3 because there are no Project-related barriers to further downstream movement in these Zones.

Similar to the upstream passage requirements discussed above, downstream passage requirements were developed in the 1994 Saco River Fish Passage Agreement and subsequently incorporated into the FERC License and WQC. Per FERC License Article 405 and WQC Condition 4, downstream passage was installed in 2001 and includes a concrete log sluice centrally located in the dam equipped with a 5-foot by 5-foot slide gate located at the headworks that passes 72 cfs. The Project also includes a downstream migrant pipe that passes 8 cfs from the upper flume conveyance flow (which ranges from 15 to 35 cfs) over an overflow gate at the lower end of the upper flume of the upstream fishway. This gate and 24" diameter pipe allows safe downstream passage to any migrating fish drawn into the upper flume by the flows needed for the upstream fish passage. Downstream passage at the Project is typically open from March 30 to Dec 16-31 annually. Brookfield makes notes on observed diadromous species in the Project area that would require downstream passage (i.e., post spawned anadromous species, and American eel). Post-spawned anadromous species are typically not observed at the Project, and downstream eel mortality has been observed to be 3 fish or less in recent years; however, there is no recent data on the total number of eels that passed.

Based on the results of a 2010 downstream juvenile herring study, NFMS concluded that juvenile passage was considered good at the Skelton Project. In 2024 Brookfield began nightly shutdowns of the turbines to facilitate downstream eel passage starting on September 1st for 8 weeks from 10pm to 4 am. River flows are typically passed through open gates and the downstream bypasses during this time. Downstream effectiveness studies for eels are planned for 2025 and 2026. Radiotelemetry studies for downstream alosid (presumably American shad and river herring) effectiveness passage are also planned for 2025 and 2026.

Trout Unlimited commented in its March 26, 2025 letter that LIHI should deny certification until achievement of 90% survival for important anadromous fish species including Atlantic salmon, American eels, American shad, blueback herring and alewives as established by radiotracking studies. However, passage criteria are set by the Saco River Fish Passage Agreement and adaptively managed by signatories to the agreement based on annual reviews and meetings to discuss annual upstream and downstream passage reports.[7] Since the last amendment to the passage agreement in 2019, Brookfield has implemented the FWS and NMFS recommended improvements at the Project including the fish crowder.

Trout Unlimited also commented that Brookfield's statement on page 53 of its revised application which read: "*Due to the extremely limited numbers of Atlantic salmon returning to the Saco River, no Atlantic salmon kelt or smolt studies are planned at this time"* is "unconscionable" and the Saco River has a well-documented historic Atlantic Salmon run. In its response comments dated April 29, 2025, Brookfield noted that per the 2007 Saco River Fish Passage Agreement, it conducted a 3-phase Atlantic salmon downstream kelt study beginning in

[7] See footnote 4 for the most recent annual report.

2009. The study consisted of: (1) a phase one desktop study (2009) to determine which Projects on the Saco River (Cataract, Skelton, Bar Mills, West Buxton, and Bonny Eagle) may have the highest level of delay/effect on downstream kelt passage; (2) a phase two passage route study (2011) that focused on the passage routes at no more than two select projects on the river (Skelton and Bar Mills) and (3) a phase three telemetry study (2012) that was planned to use 20 to 30 fish per year at the same two projects. Brookfield also notes that the 2012 radio telemetry study was able to capture and tag only 8 adult salmon, and the settlement consultation group concluded that 8 fish did not meet a scientifically biologically justifiable number. Consequently, further study efforts would be delayed until the Saco River adult salmon returns increased.

Regarding the downstream movement of resident fish, the Project waters support a mix of coldwater and warmwater fish species which are presented in Section 3.4 of the LIHI application. The Project trashracks consist of 5/8-inch steel bars with 3-inch clear spacing. The Project powerhouse consists of two vertical-shaft Kaplan turbine-generator units with a hydraulic capacity of 3,800 cfs. The LIHI application does not contain any specific data regarding entrainment rates at the Project and simply notes that no visual evidence of impingement or entrainment has been observed during daily observations at the Project since 2001 (when the fish passage facilities first became operational). Therefore, I reviewed the EPRI entrainment and survival database for rates at similar projects based on site characteristics. With 3-inch trashrack spacing the likelihood for fishes to become impinged is reduced compared to smaller spacing sizes of 1 or 2 inches. However, most juveniles and even some adults of the species noted in section 3.4 of the LIHI application could fit through the trash racks and be subjected to injury if they come in contact with the Kaplan turbine blades as they pass through the powerhouse. However, the larger individuals that could fit through the trashracks are expected to be able to outswim the intake velocities and avoid entrainment. Smaller fish that cannot outswim the intake velocities likely are entrained, however these individuals can often avoid Kaplan turbine blade strikes due to their small size. Therefore, the Project likely has minimal entrainment related effects on the impoundment fish community.

For the reasons above, and based on my review of the application, supporting documentation, and publicly available information, the Project does not appear to adversely affect downstream moving fish and has minimal loss of riverine fish from the Project reservoir and upstream reach, and thus satisfies the Downstream Fish Passage and Protection criterion. However, because the downstream effectiveness studies for eels and alosids are planned for 2025 and 2026 and the implications of their results could support modifications to passage at the Project, I am recommending a condition that requires Brookfield to file with LIHI the results of its studies, documentation of agency comments on the study results, and copies of all subsequent filings related to any passage-related modification required as a result of the effectiveness studies.

E. SHORELINE AND WATERSHED PROTECTION

Goal*:* The Facility has demonstrated that enough action has been taken to protect, mitigate and enhance the condition of soils, vegetation and ecosystem functions on shoreline and watershed lands associated with the facility.

Assessment of Criterion Passage: The Applicant appropriately selected Standard E-1, Not Applicable/De Minimis Effect for Zones 1 and 3, and Standard E-2, Agency Recommendation for Zone 2.

The Skelton FERC Project boundary covers approximately 142 acres of land and 488 acres of water. The 1996 FERC EIS notes that the dominant land uses in the region are forestry and agriculture, with 85% of the river basin's land being forested. The most productive agricultural land was in the basin's central region with dairy, poultry, crops and forest products being the primary agricultural activities. Current land cover within the Project's area is still dominated by upland deciduous, mixed, or evergreen forest, and pasture/hay (Figure 7).

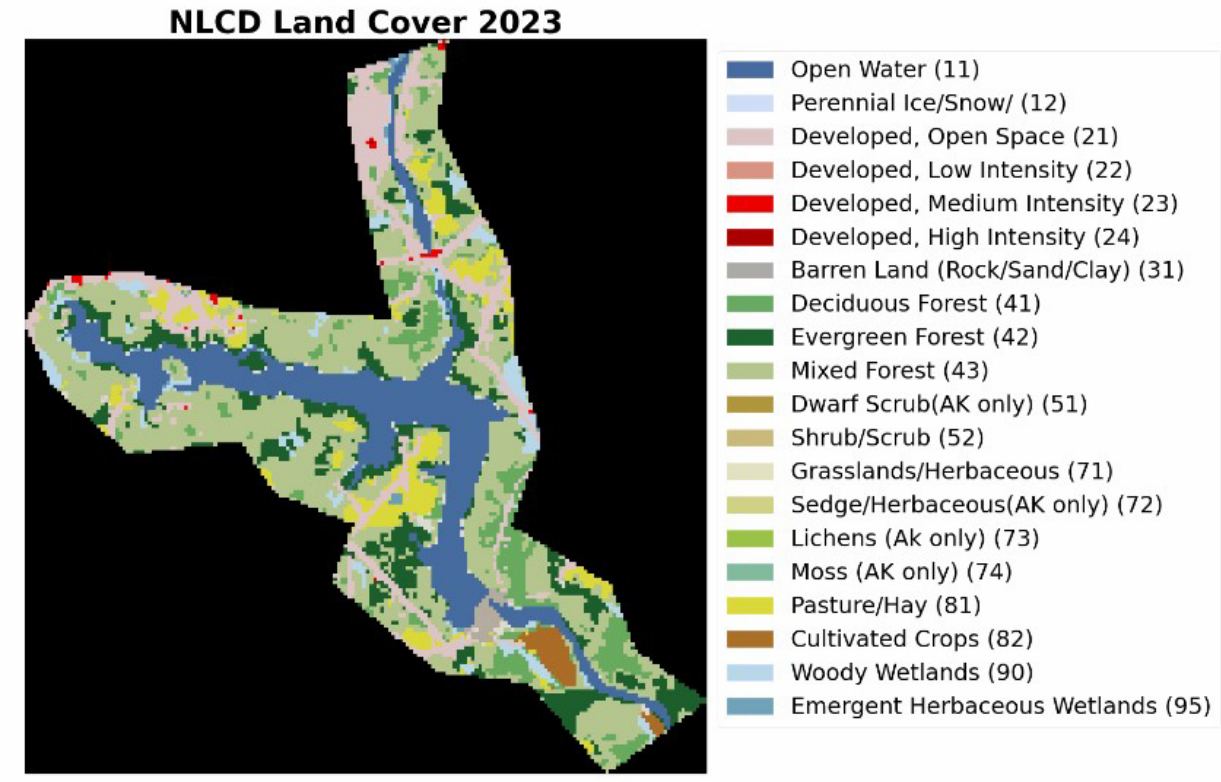


Figure 7. National Land Cover Database map[8] of the Skelton Project area.

[8] Note values in parentheses are land cover codes and not percentages of area covered.

As discussed earlier, the Project operates in a run-of-river mode with seasonal minimum flow and reservoir level restrictions. Per Article 401 of the FERC License and Condition 1 of the WQC, the Licensee is required to annually limit impoundment level fluctuations to one-foot from April 1 through June 30 and four feet from July 1 through March 1. This fluctuation regime for the Skelton Project was determined in part due to its benefits to the existing wetlands and reservoir wildlife within the Project boundary. The 1996 FEIS noted that the reservoir management study performed during the licensing process indicated that little wetland vegetation was exposed as a result of a 2.0-foot reservoir drawdown, and that of the estimated 12.2 acres of total substrate exposed, less than one acre (0.1) supported any vegetation, which was a mixture of submergent and emergent vegetation. FERC staff concluded in the FEIS that because the then-proposed operation of the reservoir was about the same with the 400-cfs minimum flow release, little or no effect on the 4.4 acres of submerged aquatic vegetation and a 0.6-acre wet meadow of the reservoir was expected.

There is no Shoreline Management Plan for the Project, and no river segments are listed on the Wild and Scenic Rivers Act. There is also no critical habitat for threatened or endangered species within the Project boundary. The run-of-river operations and minimum flow ensure that Project operations have a de minimis effect on the downstream reach. Additionally, vegetation removal within 250 feet of any waterway is regulated by the Maine DEP's Shoreline Zoning Act.

Based on my review of the application, supporting documentation, and publicly available information, the Project's operation sufficiently protects the shoreline and watershed lands under the Applicant's control. Therefore, the Project satisfies the Shoreline and Watershed Protection criterion.

F. THREATENED AND ENDANGERED SPECIES PROTECTION

Goal: The facility does not negatively impact federal or state listed species.

Assessment of Criterion Passage: The Applicant appropriately selected Standard F-2, Finding of No Negative Effect, for all Zones.

A FWS IPaC report generated by the Applicant and included Section 7 of its LIHI application included the tricolored bat (federally: proposed-endangered), the monarch butterfly as a candidate species (now proposed-threatened), and the small whorled pogonia (federally threatened) as species that may be present within the Project boundary. No critical habitat has been designated for any of these species. Bald eagles are also likely to be present. Maine DIFW informed Brookfield in an email dated March 29, 2024, and also included in section 7 of its LIHI application, that the agency's database indicates the presence of the state-endangered Blanding's turtle. In addition, several species of bat have the potential to episodically occur in the Project area during the migration and/or breeding season including the state endangered little brown bat

and Northern long-eared bat (also federally endangered but not listed in the IPaC report), and the state threatened Eastern small-footed bat.

Although Brookfield do not mention any known hibernacula sites in their application and FWS's IPaC report and Maine DIFW's letter do not mention any, upland and wetland forest in the Project vicinity may provide suitable habitat for Northern long-eared bat summer roosting and foraging activities. While the possibility of bats cannot be ruled out entirely, maintenance activities at the Project require only periodic mowing and tree trimming. Nothing in the record suggests that tree removal that occurs as part of Project operations would have the potential to affect Northern long-eared bat maternity roost habitat.

Because vegetation removal within 250 feet of any waterway is regulated by the Maine DEP Shoreline Zoning Act, Project operation and maintenance activities likely do not affect any Blanding's turtle that may be present. The Project has minimal effect on monarch butterflies due to the minimal outdoor maintenance activities of periodic mowing and tree trimming. Small whorled pogonia typically occurs in mid-successional mixed woods with sparse shrub and herb layers and thick leaf litter. It often occurs near intermittent streamlets or where a hardpan impedes water percolation into the soil. Given that Project lands are limited to those required for Project operations (including flowage rights) the growing conditions for the small whorled pogonia are not anticipated within Project lands.

Brookfield also requested a list of rare and exemplary botanical features within the Project boundary from the Maine Department of Agriculture, Conservation, and Forestry. The Agency responded in a letter dated December 18, 2024, and included in section 7 of Brookfield's LIHI application, that its database lists no rare botanical features within the Project boundary. However, there are 4 rare plant species adjacent to the Project boundary: hollow joe-pye weed; spotted wintergreen; hairy wood brome-grass; and American chestnut. The agency concluded that the Project is not likely to adversely affect these nearby rare plant species.

Based on my review of the application, supporting documentation, and publicly available information, the Project is unlikely to impact listed species, and therefore satisfies the Threatened and Endangered Species criterion.

G. CULTURAL AND HISTORIC RESOURCE PROTECTION

Goal: The facility does not unnecessarily impact cultural or historic resources that are associated with the Facility's lands and waters, including resources important to local indigenous populations, such as Native Americans.

Assessment of Criterion Passage: The Applicant appropriately selected Standard G-2, Approved

Plan, for Zones 1 and 2 and Standard G-1, Not Applicable/De Minimis Effect for Zone 3.

Based on Phase I and Phase II archaeological surveys done in the Project area during the FERC licensing process, four archaeological sites exist in Zones 1 and 2 that are eligible for inclusion in the National Register of Historic Places. Article 415 of the FERC License requires the implementation of the 1993 Programmatic Agreement to protect these resources. A review of the annual reports required by Article 415 for the previous 10 years did not indicate any cultural or historic resource issues at the Project.

There are no known cultural or historic resources in the downstream Zone. A review of the National Register of Historic Places database did not find any additional listed resources besides the ones mentioned above for Zones 1 and 2.

Based on a review of the application, supporting documentation, and publicly available information, the Project does not appear to adversely affect cultural or historic resources and satisfies the Cultural and Historic Resource Protection criterion.

H. RECREATIONAL RESOURCES

Goal: The facility accommodates recreation activities on lands and waters controlled by the facility and provides recreational access to its associated lands and waters without fee or charge.

Assessment of Criterion Passage: The Applicant appropriately selected Standard H-2, Agency Recommendation for Zones 2 and 3, and Standard H-1, Not Applicable/De Minimis Effect for Zone 1.

No formal recreation facilities are provided in Zone 1. Recreation facilities in Zone 2 include a boat launch area on the western shore just upstream of the dam that additionally serves as a portage take-out, and the upstream portion of the portage trail. Articles 413 and 414 of the FERC License require monitoring of recreational use and the installation of direction and interpretive signage respectively. Pursuant to Article 413, the Licensee filed a recreation use monitoring report on September 30, 2003. Based on that report, FERC required the Licensee to expand the boat launch parking area with five additional spaces which have since been installed.

Recreation facilities in Zone 3 include the downstream portion of the portage trail and the portage put-in facility on the western shore downstream of the tailrace. FERC's most recent Environmental and Public Use Inspection Report[9] did not find any follow-up or non-compliance recreational issues at the Project.

[9] 2019 FERC Environmental and Public Use Inspection Report

Based on my review of the application, supporting documentation, and publicly available information, the Project satisfies the Recreational Resources criterion.

VIII. GENERAL CONCLUSIONS AND REVIEWER RECOMMENDATION

Based on my review, I believe that the Project satisfies all the above environmental and social resource criteria and recommend it be certified for a period of 10 years with the following two conditions:

Condition 1: The Facility Owner must submit to LIHI the results of its 2025 upstream passage effectiveness studies and documentation of agency comments on the study results within 90 days of final report publication. In subsequent annual compliance submittals, copies of all consultation and filings related to any passage modifications required as a result of the effectiveness studies must be provided to LIHI. LIHI reserves the right to modify or add conditions, and to re-evaluate compliance with the upstream passage criterion based on the information provided.

Condition 2: The Facility Owner must file the results of its 2025 and 2026 downstream passage effectiveness studies and documentation of agency comments on the study results in quarterly compliance updates to LIHI until studies are completed. In subsequent annual compliance submittals, copies of all consultation and filings related to any passage modifications required as a result of the effectiveness studies must be provided to LIHI. LIHI reserves the right to modify or add conditions, and to re-evaluate compliance with the upstream passage criterion based on the information provided.

APPENDIX A
Comment Letters and Applicant Response

March 26, 2025

Ms. Shannon Ames, Executive Director
Low Impact Hydropower Institute
329 Massachusetts Avenue, Suite 2
Lexington, MA 02420

TROUT UNLIMITED
MAINE COUNCIL

Transmitted via e-mail to comments@lowimpacthydro.org

Subject: **Skeleton Project Comments**

Dear Ms. Ames:

On behalf of its six chapters with over 1700 members, Maine Council of Trout Unlimited ("TU") submits these comments on the Brookfield White Pine Hydro ("Brookfield") application for Low Impact Hydro Institute (LIHI) Certification distributed March 6, 2025. It has been over twenty-seven years since Federal Energy Regulatory Commission (FERC) relicensed the project and we assert that for that reason increased scrutiny should be applied to this application.

The Skelton Project is causing continuing adverse ecological impact to the watershed. This is because of both its impoundment and the cumulative effects of all six Saco River hydro projects in the less-than-40-mile reach between the Cataract Project at head-of-tide and the Hiram Project in the foothills of the White Mountains. Despite decades of stocking by the Saco Salmon Restoration Alliance and Hatchery, and improvements to fish passage downstream, only one Atlantic salmon and thirty-three American shad were counted at Skeleton Dam in 2024.[1] These numbers are far below the carrying capacity of the river for both species. Additionally, the project is included in the 2007 Settlement agreement for the Saco.

The next Brookfield hydro project upstream is the Bar Mills Dam where fish passage is required by 2025. Brookfield has included the offer to partially breach the dam to provide a zone of passage for anadromous fish as part of its License Surrender documentation, but it will be impossible for the breaching to be accomplished this year. Additionally, the Cataract Project has just entered the FERC relicensing process that will evaluate fish passage effectiveness at this head-of-tide dam. LIHI Certification of the Skelton Project is largely dependent on the 2007 Settlement[2] that focuses on fish passage. The Settlement includes "fish passage recommendations and management measures agreed to by the Parties."

With each passing year, the futility of the Settlement becomes more apparent because of the problems associated with trying to pass Atlantic salmon, America eels, American shad, blueback herring and alewives over so many Brookfield dams in the less than 40 miles of the Saco River

[1] Trap Count Statistics accessed at https://www.maine.gov/dmr/fisheries/sea-run-fisheries/programs-and-projects/trap-count-statistics accessed on March 11, 2025.
[2] The current version is Amendment No. 2 to Saco River Fisheries Assessment Agreement (Amendment) dated February 2019.

between tidewater and Hiram Dam. The settlement continues to be characterized by the lack of fish passage and failure to meet agreed milestones on time. Examples are as previously stated above as well as the delays incorporated by the adoption of the amendment in 2019 and earlier revisions. If the overall goals of the LIHI Certification Program mean anything, certification to the Skelton Project should be denied until settlement milestones have been demonstrated to be met at Skelton and the Cataract and Bar Mills projects immediately downstream and upstream. These goals are: "to recognize and support hydropower projects that prioritize environmental, recreational, historical, and cultural resource protection, using science-based criteria and public input." Brookfield has clearly failed to act to recognize and support hydropower projects that prioritize environmental, recreational, historical, and cultural resource protection in the Saco River Watershed - only to delay restoration and maximize the value of the resource as an asset in its energy portfolio. If the project is certified, LIHI will not have worked to achieve its goals but only to 'greenwash' the obviously and inherently destructive nature of current Saco River hydro operations by designating them as low impact.

Brookfield's application for the Skelton Project has not demonstrated meeting three of the certification criteria.

> 3.1 Ecological Flows. There is no USGS Flow Gage at or below the Skelton Project to accurately gage actual flows. Brookfield should provide LIHI hourly data for the past five years that confirms that the various minimum flow requirements are being met. Project certification should rest on data that clearly demonstrates compliance.
>
> 3.3 Upstream Fish Passage. Page 53 "Due to the extremely limited numbers of Atlantic salmon returning to the Saco River, no Atlantic salmon, kelt, or smolt studies are planned at this time." This is unconscionable. The Saco River has a well-documented historic Atlantic salmon run. MDMR Trap Count Statistics accessed above continue to show no recovery of the species despite years of stocking by the Saco Salmon Restoration Alliance and Hatchery.
>
> Last month, Brookfield filed their 2025 Adult Alosine Passage Effectiveness Study Plan for the Lower Saco River Projects.[3] We recommend that LIHI not certify the Skelton Project unless the results of this study show safe, timely and effective fish passage.
>
> 3.4 Downstream Fish Passage. The same comment as 3.3 applies.

For these reasons, LIHI certification should be denied at this time and continued to be denied until the following conditions have been met.

> 3.1 Ecological Flows. Flows verified by USGS or other recognized flow gage at or below the project. License Article 402 (b) allows for the impoundment to be drawn down by four feet from July 1 to September 30, which is precisely the time of year when juvenile

[3] Brookfield White Pine Hydro LLC Final 2025 Adult Alosine Passage Effectiveness Study Plan re the Cataract Hydroelectric Project dated February 27, 2025.

offspring are in the Saco River. If LIHI is to certify this project, you must be able to see what the outflow releases are for the past five years. Any evidence of hydropeaking would run completely counter to the idea that the project is low impact. Sub-daily flow variability has been shown to have an adverse effect on riverine fish.[4] LIHI should consider these impacts when looking at the flow releases from Skelton. The project should not be certified if the project's flow release data indicates rapid sub-daily flow variability. LIHI must be able to confirm from the data that when inflow is greater than 400 cfs, the minimum flow release was indeed 400 cfs. Just because a 1998 license from FERC lays out these requirements should not mean that a project is therefore low impact; these baseline requirements can still allow a hydropower project to impose numerous impacts to riverine species and processes.

3.3 Upstream Fish Passage. Completion of the Adult Alosine Passage Effectiveness Study Plan for the Lower Saco River Projects, and actual counts of 8 Atlantic salmon and 8,996 American shad at Skelton over three successive years.

LIHI must delay its certification until the results of the 2025 Adult Alosine Passage Effectiveness Study Plan for the Lower Saco River Projects are made public. It has been 27 years since the project was relicensed. Brookfield's application for LIHI Certification was premature. In the absence of recent relicensing data, it makes little sense to certify the project without this information.

Additionally, despite historical abundance of Anadromous fish in the watershed, Brookfield's projects continue to prevent their restoration. The expected median adult returns at Cataract Dam have been calculated as 878 Atlantic salmon[5] and 208,996 American shad.[6] TU sees it as exceedingly reasonable that Brookfield show that at least 1% of these estimates are achieved at Cataract to demonstrate at least some indication of meaningful fish passage: 8 Atlantic salmon, 2,090 American shad.

3.4 Downstream Fish Passage. Achievement of 90% survival for important Anadromous fish species including Atlantic salmon, America eels, American shad, blueback herring and alewives as established by radiotracking studies. This condition is consistent with passage requirements at other hydro projects in Maine. Brookfield must be able to provide data indicating that this survival rate is being met at the project.

Should LIHI grant certification based on the information that Brookfield has provided, then TU requests that LIHI provide a reasonable degree of scrutiny be applied to the projects on the lower Saco River by requiring quarterly reports on compliance with the above stated criteria, or

[4] Bozeman, B. B., Pracheil, B. M., & Matson, P. G. (2024). The environmental impact of hydropower: a systematic review of the ecological effects of sub-daily flow variability on riverine fish. *Reviews in Fish Biology and Fisheries*. https://doi.org/10.1007/s11160-024-09909-4.

[5] Baum, E.T. 1997. Maine Atlantic Salmon Management Plan with Recommendations Pertaining to Staffing and Budget Matters.

[6] USFWS, MDIFW, Maine Sea Run Atlantic Salmon Commission, MDMR. 1987. Saco River Strategic Plan for Fisheries Management.

until issues regarding fish passage at Cararact, Skelton and Bar Mills have been resolved by relicensing of the Cataract Project, achievement of reasonable fish passage goals at the Skelton Project, and removal of, or establishment of a zone of passage at, the Bar Mills Project.

TU appreciates the opportunity to comment on this application.

Respectfully,

Stephen G. Heinz
Maine TU Council FERC Coordinator

Reply to: heinz@maine.rr.com

April 18, 2025

Ms. Shannon Ames, Executive Director
Low Impact Hydropower Institute
329 Massachusetts Avenue, Suite 2
Lexington, MA 02420

TROUT UNLIMITED
MAINE COUNCIL

Transmitted via e-mail to comments@lowimpacthydro.org

Subject: **Skeleton Project Comments**

Dear Ms. Ames:

On behalf of its six chapters with over 1700 members, Maine Council of Trout Unlimited ("TU") submits these follow-up comments to our original comments submitted on March 26, 2025 regarding the Brookfield White Pine Hydro ("Brookfield") application for Low Impact Hydro Institute (LIHI) Certification for the Skelton Project distributed March 6, 2025.

Attachment A[1] is the letter Brookfield recently sent to those responsible for observations of juvenile American eels at the Hiram Project and posting the results to the Hiram Project FERC Docket (P-2530).[2] Contrary to Brookfield's reports and study data submitted for that project's relicensing in 2022, there are many more juvenile American eels attempting to pass upstream at Hiram. This should bear on the requirements and timing for upstream eel passage under the 2007 Settlement.

One of the arguments TU makes in its Skelton LIHI Application Comments is that:

> "Brookfield has clearly failed to act to recognize and support hydropower projects that prioritize environmental, recreational, historical, and cultural resource protection in the Saco River Watershed - only to delay restoration and maximize the value of the resource as an asset in its energy portfolio. If the project is certified, LIHI will not have worked to achieve its goals but only to 'greenwash' the obviously and inherently destructive nature of current Saco River hydro operations by designating them as low impact."

The Brookfield letter demonstrates Brookfield's intent and continuing efforts to delay fish passage throughout the Saco River watershed. Furthermore, the Brookfield letter is contrary to Maine law regarding an important doctrine called "SLAPP" or Strategic Lawsuits Against Public Participation which has both case law and is codified in Maine's Uniform Public Expression Protection Act (UPEPA). Maine adopted an anti-SLAPP statute in 1995 (14 M.R.S. § 556), but that statute was limited to the right to petition. The revised law, 14 M.R.S. §§ 731-742, greatly expands the scope of the anti-SLAPP

[1] Brookfield letter dated March 31, 2025, no subject or RE.
[2] Saco Salmon Restoration Alliance letter dated March 11, 2025, Subject: Subject: Hiram Project (FERC No. 2530) – Juvenile American eel observations

protection in Maine, aiming to provide a clear framework for the efficient review and dismissal of SLAPPs.

UPEPA broadly applies to a party's "[e]xercise of the right of freedom of speech or of the press, the right to assemble petition or the right of association, guaranteed by the United States Constitution or by the Constitution of Maine, on a matter of public concern."[3] 14 MRSA Section 733(C).

This doctrine and statute protect the public participating in matters of public concern from intimidation lawsuits or claims frequently brought on trespass or nuisance grounds. The Brookfield letter is threatening a trespass claim and enforcement for activities being conducted to determine Brookfield's regulatory compliance. Brookfield has no legal basis to threaten trespass under such circumstances, and any retribution or harassment should be treated as unlawful.

Brookfield's letter serves to underline its active efforts to delay compliance with the spirit and provisions of the 2007 Settlement that is a major basis for its LIHI Certification Application for the Skelton Project. Please add withdrawal of the Brookfield letter with an apology to those addressed in Brookfield's letter to the list of conditions that TU has requested as prerequisites for LIHI Certification for the Skelton Project:

> "Should LIHI grant certification based on the information that Brookfield has provided, then TU requests that LIHI provide a reasonable degree of scrutiny be applied to the projects on the lower Saco River by requiring quarterly reports on compliance with the above stated criteria, or until issues regarding fish passage at Cararact, Skelton and Bar Mills have been resolved by relicensing of the Cataract Project, achievement of reasonable fish passage goals at the Skelton Project, and removal of, or establishment of a zone of passage at, the Bar Mills Project."

TU appreciates the opportunity to comment further on this application.

Respectfully,

Stephen G. Heinz
Maine TU Council FERC Coordinator

Reply to: heinz@maine.rr.com

Attachment – Brookfield Letter dated March 31, 2025 w/attachment

Email copies to: attorney.general@maine.gov, Laura.Paye@maine.gov, Casey.Clark@maine.gov

[3] 14 MRSA Section 733(C).

Brookfield
Renewable U.S.

Attachment

March 31, 2025

Patricia Barber and Bruce McLaughlin
21 King Street
Hiram, ME 04041-3215

Sent via: United States Postal Service First-Class Mail® and FedEx Express (Tracking #8801 9368 8335)

Dear Patty and Bruce:

I am writing today on behalf of Brookfield White Pine Hydro, LLC (BWPH), owner and operator of the Hiram Hydroelectric Project in Hiram and Baldwin, Maine. Through recent correspondence with the Saco Salmon Restoration Alliance (SSRA), which was subsequently filed on the docket with the Federal Energy Regulatory Commission, BWPH became aware of activities you both engaged in throughout 2024 which unnecessarily endangered your personal safety.

Critically, the purpose of this letter is to notify you in writing, and thereby remove any possible future uncertainty, that your willful disregard for the fencing and signage intended to keep you safe constituted a trespass on BWPH property and will not be tolerated moving forward.

The Hiram Hydroelectric Project features a combination of security fencing and signage intended to keep the public out of harm's way. These signs advise, among other things, of the dawn to dusk use of the facility, warn of changes in and the dangers of water releases and recirculating currents, and prohibit trespassing on the ledges below the dam.

A comment attributed to Patty Barber of Hiram and submitted as Exhibit A-8 via a March 31, 2022, filing of The Sells Law Firm, LLC on behalf of the Sebago Chapter of Trout Unlimited with the Maine Board of Environmental Protection notes, among other things: "…the industrial infrastructure, with the chain link fences, metal gates … and warning signs…". These words identify an existing knowledge of this infrastructure and suggest a willful disregard for these security measures during your trespass.

A copy of this comment has been attached to this letter for your reference.

Further, the geotagged photos included in the "Photo Log: Hiram Dam – Eel Observations (2024)" and Table 1 of the "Hiram Dam – Eel Observations (2024)" shared by SSRA's Mark Woodruff document your physical presence in prohibited areas and the specific times when these trespasses occurred. A modified version of this table featuring the addition of both sunset and civil twilight for Hiram, Maine document several instances in which you were present on BWPH property after dusk.

BROOKFIELD WHITE PINE HYDRO LLC
150 Main Street, Lewiston, ME 04240
T +1 207.755.5600 F +1 207.755.5655 brookfieldrenewableUS.com

Brookfield
Renewable U.S.

Date	Survey Start	Survey End	Sunset	Civil Twilight
6/4/2024	2030 hrs	2100 hrs	2021 hrs	2057 hrs
6/6/2024	2100 hrs	2145 hrs	2023 hrs	2058 hrs
6/7/2024	2100 hrs	2140 hrs	2023 hrs	2059 hrs
6/13/2024	2045 hrs	2110 hrs	2027 hrs	2103 hrs
6/14/2024	2100 hrs	2111 hrs	2027 hrs	2103 hrs
6/16/2024	2032 hrs	2040 hrs	2028 hrs	2104 hrs
6/17/2024	2054 hrs	2135 hrs	2028 hrs	2104 hrs
6/22/2024	2028 hrs	2150 hrs	2029 hrs	2106 hrs
6/27/2024	2135 hrs	2210 hrs	2030 hrs	2106 hrs
7/21/2024	2051 hrs	2117 hrs	2018 hrs	2052 hrs
8/4/2024	2053 hrs	2105 hrs	2002 hrs	2034 hrs
9/1/2024	2000 hrs	2040 hrs	1918 hrs	1947 hrs
9/21/2024	1944 hrs	2013 hrs	1841 hrs	1910 hrs

Source: Table 1: Hiram Dam – Eel Observations (2024); Data Services, Astronomical Applications Department, United States Naval Observatory for 43°51'00.0"N 70°48'00.0"W.

In response to these actions, BWPH is taking steps to enhance its camera coverage of the Hiram Hydroelectric Project.

If you are observed in prohibited areas or about the above-described premises outside of public recreation hours, your actions will constitute a trespass and local law enforcement will be notified. Further, you will be served a Notice of No Trespass barring you from all Brookfield Renewable U.S. recreational facilities in Maine and New Hampshire.

Please know that we do not take these steps lightly. Were our own staff, or contractors hired on our behalf, to engage in the same activities, it would require significant operational modifications to the Project and intense coordination between our remote National System Control Center, local operations staff, and those conducting survey activities to ensure their safety. Importantly, we would **never** allow anyone to access the ledges with water actively passing over the dam's spillway. To do so would offer almost no time to evacuate from the area during an unplanned station trip and unnecessarily jeopardize their lives.

We will contact the SSRA under separate cover to advise them of the need to ensure their members and supporters do not engage in similar activities at the Hiram Hydroelectric Project, other BWPH facilities on the Saco River, and any other Brookfield operated facility in Maine or New Hampshire.

Sincerely,

David Heidrich
Stakeholder Relations Manager

Attachment

Cc: Mark Woodruff, SSRA

BROOKFIELD WHITE PINE HYDRO LLC
150 Main Street, Lewiston, ME 04240
T +1 207.755.5600 F +1 207.755.5655 brookfieldrenewableUS.com

Exhibit A-8

PATRICIA A BARBER, Hiram, ME.

I live in East Hiram and have been fishing, swimming and hiking in and around the Saco River and the Great Falls area for over 20 years. I have seen first hand the influence Brookfield's Hiram Dam has had on the waterways, wildlife, and surrounding recreational areas. The dam has destroyed any semblance of a flowing river. The Great Falls are not falls, but a series of rocks and stagnant pools. The falls are almost completely dewatered most of the summer. I have walked up the entire rock face, dry as a bone, from the sandbar/beach area to just below the concrete dam. I have tried to fish the little pools that remain in the hollowed out rock areas and they are devoid of fish- not even frogs or waterbugs are present. 99.9% of the water of the Saco River flows from the impoundment behind the dam through the turbine blades to the pool by the sandbar.

These falls were essential to the local Native People's populations. They supported renown native brook trout, American Eel, and Atlantic Salmon fisheries. They were a great recreational destination with an overlook, a diner, a Great Falls side park and picnic area, and swimming hole. These have mostly disappeared since the dam was built. Now there are chain link fences, metal gates, sketchy overgrown overlook and 'nature trail' areas, dewatered falls, and the only fish you can catch are bass, an invasive species.The beach and sandbar area below the turbines is still a popular swimming area, but I myself am afraid to swim out too far, fearful that the turbines will suck me under. Some users leave mounds of trash and rotted food, dig out shallow toilet areas in the sand, and camp out overnight and party against permission. The local townfolk and volunteers try to keep the area clean and safe, but it is a losing battle.

It is imperative for the health of the waterway and the lives that depend on it that there be a connection above and below the dam (NOT through the turbine blades as is present now). There needs to be a working, natural fish passage to allow the native run brook trout (there are viable Brookie feeder streams above the dam impoundment), American Eels (the Saco supports healthy eels that are decades old, only to be chewed up by the turbines as they try to navigate back to the Sargasso Sea to reproduce), suckers and other native fish species. The fish passage needs to be in place for when the mandated fish passages in the downstream Saco River dams are opened up to allow the Atlantic Salmon back up the river to lay their eggs. The flow over the falls needs to return to allow the river quality to return, to allow a more natural aquatic ecosystem.

The recreational areas need to be improved: better parking (the lower parking lot only holds six cars, and has a narrow, bottlenecked entrance), policing and maintenance for safety, bathroom facilities, and a more inviting presence- the industrial infrastructure, with the chain link fences, metal gates, trash and debris, aging powerhouse and warning signs lends an air of neglect, misuse and danger.

Brookfield and their partners have benefited greatly from taking and using all of the water from Great Falls to build their own profits. They owe a debt and some respect to the river, its wildlife, and the people who love and use the area. It's time Brookfield gave something back, to replace some of what was taken, to bring back life and a natural ecosystem to an ancient and beautiful place.

Patty Barber Hiram Maine

Brookfield
Renewable U.S.

April 29, 2025

Skelton Project
FERC No. 2527-ME

Ms. Shannon Ames, Executive Director
Low Impact Hydropower Institute
1167 Massachusetts Avenue - Office 407
Arlington, Massachusetts 02476

Subject: Low Impact Hydropower Institute (LIHI) Skelton Project Application Comments

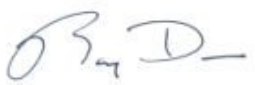
Dear Ms. Ames:

Brookfield White Pine Hydro LLC (BWPH), licensee for the Skelton Project, is submitting the attached responses to Trout Unlimited's March 26, 2025 comments on BWPH's LIHI Application for the Skelton Project on the Saco River in Maine.

In our understanding, LIHI certification is intended to promote "hydropower projects that have avoided or reduced their environmental impacts pursuant to the Low Impact Hydropower Institute's criteria." For over 30 years BWPH and its predecessor companies have worked closely with the fishery agencies under the 1994 Saco River Fish Passage Agreement to improve migratory fish passage throughout the Saco River basin. BWPH believes that the Agreement and its subsequent amendments, under which the Skelton Project operates, has been a model of responsible, cooperative, and adaptive management in the spirit of the LIHI criteria. It is with this history and context that we respond in the attached to the comments from Trout Unlimited.

Please call me at (207) 755-5606 or email me at randy.dorman@brookfieldrenewable.com if you have any questions.

Sincerely,



Randy Dorman
Senior Manager, Compliance - Northeast

Attachment: BWPH Responses to TU's March 26, 2025 Comments

Cc: D. Bates, K. Pocquette, M. Leblanc, K. Murphy, M. Leblanc Sr., P. McDonough; BWPH

SharePoint: 2527|01

BROOKFIELD WHITE PINE HYDRO LLC
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Skelton Project

FERC No. 2527

Comment and Responses

Trout Unlimited Comment	**Brookfield White Pine Hydro Response**
The Skelton Project is causing continuing adverse ecological impact to the watershed. This is because of both its impoundment and the cumulative effects of all six Saco River hydro projects in the less-than-40-mile reach between the Cataract Project at head-of-tide and the Hiram Project in the foothills of the White Mountains.	This bare assertion is wholly unsupported.
With each passing year, the futility of the Settlement becomes more apparent because of the problems associated with trying to pass Atlantic salmon, America eels, American shad, blueback herring and alewives over so many Brookfield dams in the less than 40 miles of the Saco River certified, LIHI will not have worked to achieve its goals but only to 'greenwash' the obviously and inherently destructive nature of current Saco River hydro operations by designating them as low impact.	See the previous comment.
Brookfield's application for the Skelton Project has not demonstrated [the following criterion]: *3.1 Ecological Flows. There is no USGS Flow Gage at or below the Skelton Project to accurately gage actual flows. Brookfield should provide LIHI hourly data for the past five years that confirms that the various minimum flow requirements are being met. Project certification should rest on data that clearly demonstrates compliance.*	Per Article 403 of the Project FERC license, Brookfield White Pine Hydro (BWPH) follows a FERC approved Minimum Flow and Pond Level Monitoring Plan (August 27, 1998). Operational data is monitored through a Supervisory Council and Data Acquisition (SCADA) system. Deviations from run-of-river flows and headpond elevations are reported to the resource agencies and to the FERC promptly. Two flow deviations and one headpond deviation occurred in the last ten years, listed in our application and below:

Trout Unlimited Comment	Brookfield White Pine Hydro Response
	• On June 30, 2020, a minimum flow disruption occurred at the project due to a third-party power outage. FERC determined the flow disruption was not a license violation. • On August 13, 2016, a headpond deviation occurred due to low inflows. FERC determined the headpond deviation was not a license violation. • On September 9, 2014, a minimum flow disruption occurred from equipment failure. FERC determined the flow disruption was not a license violation. Per the FERC approved Minimum Flow and Monitoring Plan, operational data may be obtained by the U. S. Fish and Wildlife Service, Maine Department of Environmental Protection, and Maine Department of lnland Fisheries and Wildlife by submitting a request to BWPH.
[Brookfield's application for the Skelton Project has not demonstrated the following criterion]: *3.3 Upstream Fish Passage. Page 53 "Due to the extremely limited numbers of Atlantic salmon returning to the Saco River, no Atlantic salmon, kelt, or smolt studies are planned at this time." This is unconscionable.*	The agency approved Skelton Project upstream fishlift has been operating successfully for 22 years. On average, 2.4 Atlantic salmon have passed the project annually since 2014. In accordance with the 2007 Saco River Fish Passage Agreement, BWPH commenced a three phase Atlantic Salmon Agency approved downstream kelt study in 2009. This plan consisted of (1) a phase one desktop study (2009) to determine which Projects may have the highest level of

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	delay/effect on downstream kelt passage; (2) a phase two passage route study (2011) that focused on the passage routes at no more than two select projects and (3) a phase three telemetry study (2012) that used 20 to 30 fish per year. The 2012 radio telemetry study was able to capture and tag only 8 adult salmon, and the settlement consultation group concluded that 8 fish did not meet a scientifically biologically justifiable number. Consequently, further study efforts would be delayed until the Saco River Adult salmon returns increased.
The Saco River has a well-documented historic Atlantic salmon run. MDMR Trap Count Statistics accessed above continue to show no recovery of the species despite years of stocking by the Saco Salmon Restoration Alliance and Hatchery.	The USFWS and NMFS expressly did not include the Saco River as part of the Gulf of Maine Distinct Population Segment for Atlantic salmon as part of their listing under the Endangered Species Act. Atlantic salmon smolts have neither been produced nor released into the Saco River for several years and the stocking of eggs and fry in the watershed has switched to the lower river system below Skelton. Also, because the Saco River lies outside of the Atlantic salmon Gulf of Maine Distinct Population Segment, there are no salmon smolts or kelts available to be utilized for study fish. Since 2007, BWPH has distributed over $50,000 annually to a salmon enhancement fund and distributed it to where the USFWS and MDMR find the most need. Historically, this money has been allocated to the USFWS salmon hatchery, University of New England, or the Saco Salmon Restoration

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	Alliance & Hatchery in an attempt to increase Saco salmon returns.
Last month, Brookfield filed their 2025 Adult Alosine Passage Effectiveness Study Plan for the Lower Saco River Projects. We recommend that LIHI not certify the Skelton Project unless the results of this study show safe, timely and effective fish passage.	BWPH follows upstream and downstream fish passage requirements, including studies, originally determined by the 1994 Saco River Fish Passage Agreement and then incorporated into the 1998 FERC license under Articles 405, 406, and 407, and have been updated pursuant to the 2007 Saco River Fish Passage Agreement and the 2019 Amendment to the Saco River Fish Passage Agreement. BWPH submits an annual fish passage report to all state and federal fisheries agencies for review and comment. The report details ongoing and future needs within the Saco River Diadromous fish program, and the agency's comments are addressed either separately or within the report itself and followed up with an annual meeting and discussion. All additional upstream and downstream fish passage studies discussed are also planned, reviewed, and commented on by the fisheries agencies before being filed with the FERC. The Saco River settlement provides a flexible framework that allows fish passage improvements to be addressed in a timely manner through ongoing consultation with the fishery agencies. Through this process a substantial agency approved Natural-Like Fishway was installed at the Cataract Project, Spring Island in 2017 through 2019. A West Channel diversion wall to improve upstream fish passage was completed in late December 2021 as requested by the NMFS and most recently, a substantial modification was made to the East Channel upstream fish lift entrance in 2022-2024

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	under the guidance of NMFS. These significant agency-suggested and agency-approved fisheries enhancements were specifically designed to improve safe and effective fish passage.
Additionally, despite historical abundance of Anadromous fish in the watershed, Brookfield's projects continue to prevent their restoration. The expected median adult returns at Cataract Dam have been calculated as 878 Atlantic salmon and 208,996 American shad.6 TU sees it as exceedingly reasonable that Brookfield show that at least 1% of these estimates are achieved at Cataract to demonstrate at least some indication of meaningful fish passage: 8 Atlantic salmon, 2,090 American shad.	First, it is important to note that historically, American Shad and River Herring (Blueback and Alewives) were never known to have ascended above the downstream Cataract Project until upstream fish passage was installed by dam owners in 1993. Second, spawning habitat is available for approximately 24,510 adult male and female American shad between the Cataract and Skelton Projects according to the 1987 USFWS Saco River Strategic Plan for Fisheries Management. American shad upstream passage numbers past the downstream Cataract Project have averaged between 2,500 and 3,500 fish since 1993. That habitat below the Skelton Project would likely need to be saturated with spawning shad before higher returns would be expected to pass at the Skelton Project. Returns of Atlantic salmon to the Saco River have fluctuated since 1993 but have exhibited no overall notable trend. Although BWPH annually contributes over $50,000 to a Salmon Enhancement Fund, the species has unfortunately demonstrated limited recovery despite years of stocking. The very few Atlantic Salmon that are passed at the Cataract and Skelton Projects are typically strays from other rivers, as historically documented through scale samples, tags or

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	marks, and stocking data correlation between other river systems.
[Brookfield's application for the Skelton Project has not demonstrated the following criterion]: *3.4 Downstream Fish Passage. Achievement of 90% survival for important Anadromous fish species including Atlantic salmon, America eels, American shad, blueback herring and alewives as established by radiotracking studies. This condition is consistent with passage requirements at other hydro projects in Maine. Brookfield must be able to provide data indicating that this survival rate is being met at the project.* *Should LIHI grant certification based on the information that Brookfield has provided, then TU requests that LIHI provide a reasonable degree of scrutiny be applied to the projects on the lower Saco River by requiring quarterly reports on compliance with the above stated criteria, or until issues regarding fish passage at Cararact, Skelton and Bar Mills have been resolved by relicensing of the Cataract Project, achievement of reasonable fish passage goals at the Skelton Project, and removal of, or establishment of a zone of passage at, the Bar Mills Project.*	On November 30, 2020, BWPH notified FERC of its intention to surrender the Bar Mills Project license (FERC No. 2194). In balancing operational, environmental, and future engineering concerns, BWPH determined this approach as the most viable solution. Notifying FERC of the intent to surrender the license was the first step in the decommissioning process that includes agency and stakeholder consultation and environmental and public safety analysis. The second study season wrapped up in late 2024, and BWPH anticipates publishing a Draft Study Report in 2025. Additional details about the Bar Mills project including a decommissioning process and schedule can be found at https://barmills.brookfieldusprojects.com/process-schedules/ The 2007 Saco River Fish Passage Agreement provides an opportunity for all state and Federal Agencies to work together with BWPH in furthering fish passage at the Skelton Project as well as in the entire Saco River watershed. BWPH has far exceeded its environmental and fisheries commitments at Skelton and its other Saco River projects to approach any issues in a biologically sound and methodical order instead of relying on the relicensing process timeframe.