

MATTHEW D. MANAHAN

Merrill's Wharf
254 Commercial Street
Portland, ME 04101

P 207.791.1189
F 207.791.1350
C 207.807.4653
mmanahan@pierceatwood.com
pierceatwood.com

Admitted in: MA, ME, NH

August 18, 2021

VIA ELECTRONIC MAIL

Kathy Davis Howatt
Hydropower Coordinator
Bureau of Land Resources
Maine Department of Environmental Protection
17 State House Station
Augusta, ME 04333-0017

Re: Shawmut Hydroelectric Project FERC No. 2322
Section 401 Water Quality Certification (DEP Application # L-19751-33-H-N)

Dear Kathy:

Please accept these comments on behalf of Sappi North America, Inc. ("Sappi") on the draft water quality certification order for the Shawmut Hydroelectric Project. Sappi objects in the strongest terms to the draft order, which proposes to deny certification on the basis that the proposed upstream fish passage is estimated to be 96% effective, rather than 99% effective. Because we understand that 99% effectiveness is not achievable at this site (and the draft order fails to address that issue), the logical result of such a denial would be removal of the Shawmut Dam. As we have stated previously, removal of the Shawmut Dam would have potentially devastating economic effects on Sappi's Somerset Mill, its employees, and its suppliers, and thus a similarly devastating impact on the surrounding communities whose economies rely to a large extent on the Somerset Mill. Therefore, and because the applicable water quality standards do not require 99% effective upstream fish passage (which is not based on science), we request that DEP revise the draft order so that it grants water quality certification for the operation of the project as proposed, and as approved by the Federal Energy Regulatory Commission (FERC) in the Draft Environmental Assessment (DEA) issued on July 1, 2021.

The draft certification order dismisses Sappi's concerns with the following statement, on page 52: "removal of the Shawmut Dam and the associated release of its impoundment is not proposed or considered in the water quality certification application before the Department and the comments do not address the elements of Maine's water quality standards reviewed herein." This statement is wrong on both points.

First, although removal of the Shawmut Dam has not (of course) been proposed, removal of the dam *must* be considered as a likely outcome of denial of the certification. DEP cannot simply bury its head in the sand about this issue. You ignored our comments because dam removal is not directly at issue, but it is the logical conclusion and, as we have noted in our previous comments, dam removal could result in shutting down the Sappi Somerset mill.

Second, Sappi's comments did in fact address the elements of Maine's water quality standards, stating as follows: "we are asking MDEP, in connection with its consideration of Brookfield's application for water quality certification, to conclude that the adverse impacts of removal of the Shawmut Dam would greatly outweigh any potential benefit to fish habitat, and that requiring Brookfield to construct effective and cost-effective fish passage facilities – as described in the DEA – would ensure compliance with state water quality standards, to the extent such water quality standards can be interpreted to require fish passage at the Shawmut Dam." Those comments directly addressed the elements of Maine's water quality standards at issue in the certification order.

The water quality standards at issue are found at 38 M.R.S. § 465(3)(A) and (C). Paragraph A provides that "Class B waters must be of such quality that they are suitable for the designated uses of . . . habitat for fish and other aquatic life. The habitat must be characterized as unimpaired." Paragraph C provides that "Discharges to Class B waters may not cause adverse impact to aquatic life in that the receiving waters must be of sufficient quality to support all aquatic species indigenous to the receiving water without detrimental changes in the resident biological community." Both of those standards require the DEP to balance competing uses of the waters, and to consider in that balancing analysis upstream economic impacts such as those Sappi would suffer in the event of dam removal.¹ Specifically, paragraph A uses the word "suitable," which necessarily requires a balancing of other uses in making the subjective "suitability" determination. Paragraph C uses the word "sufficient," which also necessarily requires a balancing of other uses in making the subjective "sufficiency" determination.

In other words, as we wrote in our prior comments, DEP must consider whether the adverse impacts of removal of the Shawmut Dam (flowing from denial of the certification) would outweigh any potential incremental benefit to fish habitat of requiring slightly more effective fish passage, and whether requiring Brookfield to construct effective and cost-effective fish passage facilities – as described in the DEA – would ensure compliance with state water quality standards. We believe the answer is clear – the DEA-approved fish passage meets water quality standards, given the balancing analysis required here and the very small differential (3%) between the effectiveness proposed (96%) and the effectiveness DMR desires (99%), and the fact that the higher percentage likely is not even achievable. The draft order, however, fails to undertake that required balancing analysis. In fact, the draft order entirely ignores the ramifications for the dam, and for Sappi and other stakeholders, of a denial of certification.

¹ In addition to the estimated cost of replacement water intake and discharge facilities, as evidenced by documentation we have previously supplied to you for inclusion in this administrative record (see our March 29, 2021 letter to FERC, copied to you), it has become clear since our prior comments that it is unlikely replacement process water intake facilities could even be designed and constructed to provide the water needed to operate the Somerset Mill. See the letter from TRC Consulting and the affidavit of James P. Brooks, attached hereto as Exhibit A and Exhibit B, respectively. Also, there would be significant permitting obstacles to construction of such a replacement intake system. For example, would the wells needed for such a replacement system meet the significant groundwater well standards in 38 M.R.S. § 480-D(10), which include a requirement of no unreasonable impact on waters of the State, water-related natural resources, and other users?

Basing the denial on a 3% differential in effectiveness is arbitrary² and contrary to DEP's historic practice. The arbitrariness of this difference is demonstrated by DEP's practice in other contexts of finding compliance with water quality standards when modeling or calculation shows substantial compliance rather than 100 percent compliance, such as decisions that are within the margin of error or testing capability. It is entirely inappropriate to ascribe a rigid numeric value to a narrative criterion without having gone through notice-and-comment rulemaking.

As further evidence of the arbitrariness of a 99% upstream passage efficiency requirement, I attach as Exhibit C a letter from Bill Ball, the President and founder of Acheron Engineering Services and a professional engineer with extensive experience in fish passage at hydropower dams. Mr. Ball makes the following key points:

- The 99% standard is not reasonable and science-based.
- DEP has not acted consistently with its prior practice or the practice of fisheries agencies in issuing the draft denial.
- Denying certification based on a difference of 3% in proposed fish passage efficiency is arbitrary, because it ignores the much greater variability in methodology used to measure that efficiency.
- The regulatory standard established by DEP should not be any higher than the estimated efficiency of a restored riverine system without the dam in place, and the failure to address that issue in the draft denial is a significant failure.
- Nowhere does DEP address the normal annual variation in fish passage effectiveness; with a 99% standard, there is no way to account for any natural variation. Every year, the licensee must achieve either 100% or 99% effectiveness. This is unreasonable and not based on science.
- It would appear that DMR's 99% effectiveness recommendation is a sham intended to result in dam removal.
- Given the lack of science and engineering to support the draft denial, it seems clear that DEP is simply deferring to DMR's desire to have the lower Kennebec River dams removed; DEP normally bases its decision on science and this draft denial seems to be an aberration.

In summary, the draft denial is not based on science or good engineering practice.

² Although the water quality statutes vest the DEP with significant discretion, that discretion is not unlimited. The DEP must at a minimum undertake the balancing analysis discussed above. To the extent the DEP interprets the law to vest it with discretion to deny certification based on a 3% difference in the effectiveness of upstream fish passage – without undertaking a rulemaking to provide a rationale for that small distinction – the statutes that purport to provide that virtually unlimited discretion are void for vagueness because they allow DEP to make arbitrary and capricious determinations. See, e.g., *Rangeley Crossroads Coalition v. Land Use Regulation Commission*, 2008 ME 115, ¶ 12 (statutes are void for vagueness when they fail “to furnish a guide which will enable those to whom the law is to be applied to reasonably determine their rights thereunder, and [which will assure] that the determination of those rights will not be left to the purely arbitrary discretion of the administrat[ive agency].”); *Kosalka v. Town of Georgetown*, 2000 ME 106 (quantifiable standards are necessary so the applicant is not required to guess what level of conservation is necessary, and so decision makers do not need to “make legislative-type decisions based on any factor they independently deem appropriate.”).

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As we also suggested in our prior comments, the water quality standards do not even require fish passage at the Shawmut Dam. This is because the standards are directed only at water quality, not the physical attributes of the river channel, such as the presence of a dam. As noted above, Paragraph A provides that "Class B waters must be of such quality that they are suitable for the designated uses of . . . habitat for fish and other aquatic life." Paragraph C provides that "the receiving waters must be of sufficient quality to support all aquatic species indigenous to the receiving water without detrimental changes in the resident biological community." The focus clearly is on water quality, not physical obstructions in the water. There are separate laws to deal with those non-water quality-related issues – the Federal Power Act (FPA) for FERC-licensed dams,³ and the Maine Fishway Law (12 M.R.S. § 12760) for other dams and artificial obstructions. Whether or not the DEP *may* require fish passage, however, it *should* not, in this case, require passage with an estimated efficiency that would render the dam uneconomic (if it is achievable at all) or that would (by virtue of being uneconomic or impossible to achieve) result in denial of water quality certification. In other words, because DEP at a minimum has discretion whether to require fish passage at all it also has flexibility to decide how effective such passage should be, if DEP does require it -- particularly when the difference between cost-effective passage (96%) and passage that is not achievable (99%) is so small. And 99% effectiveness is rarely achieved even at sites that are entirely natural, with no artificial obstructions.

In short, we request DEP to address these deficiencies by revising the order to grant certification of the project and its fish passage as proposed.

Thank you for your consideration of these comments.

Sincerely,



Matthew D. Manahan

Enclosures

cc: Hon. Janet Mills
James Brooks
Briana O'Regan, Esq.

³ The FPA requires that FERC must consider whether the hydropower project is best adapted to a comprehensive plan for, among other things, protection, mitigation, and enhancement of fish (included related spawning grounds and habitat), that FERC must consider the recommendations of state and federal agencies regarding protection of fish and wildlife (16 U.S.C. § 803(a) (FPA § 10(a))), and that the FERC license must include conditions to protect fish and wildlife, based on the recommendations of state and federal agencies (16 U.S.C. § 803(j) (FPA § 10(j))). Also, FERC must require construction of fishways that are prescribed by the U.S. Fish and Wildlife Service (16 U.S.C. § 811 (FPA § 18)).

EXHIBIT A

August 18, 2021

Mr. James Brooks
Environmental Manager
Sappi Somerset Mill
1329 Waterville Road
Skowhegan, ME 04976

Sent Via Email: james.brooks@sappi.com

Subject: Comments on MDEP's Draft Denial of Shawmut Hydroelectric Project
Kennebec River Study at Sappi Somerset Mill
TRC Project No. 429681

Dear Jim:

TRC Environmental Corporation (TRC) is providing this letter to Sappi in conjunction with your comments on the Maine Department of Environmental Protection's (MDEP) August 11, 2021 draft order denying the water quality certification application for the Shawmut Hydroelectric Project, owned by Brookfield White Pine Hydro LLC (Brookfield).

TRC was retained by Sappi in February 2021 to provide a brief conceptual analysis of the potential impacts on the Somerset Mill if the Shawmut dam downstream of the mill were to be removed. On March 11, 2021, TRC provided Sappi with a report of conceptual alterations to the Somerset Mill that could be constructed if the Kennebec River levels were to drop an estimated 15 to 20 feet as a result of the dam removal; the report did not address the actual feasibility of those options. Sappi included this report with its comments to the Maine Department of Marine Resources (MDMR) proposed fisheries management plan amendment for the Kennebec River, and a MDMR public hearing that was scheduled for February 16, 2021.¹ In our March 11 report, TRC provided Sappi with two conceptual options to modify the mill's water intake system:

- Option 1 – In-River Basin: Construct a new pump house with a new in-river basin footprint of approximately 500 feet by 500 feet.
- Option 2 – Vertical Well Caissons: Construct five to six new vertical well shafts (or caissons, each 8 to 10 feet in diameter) on the riverbank, with lateral perforated pipes tunneled horizontally below the Kennebec River.

Additional modifications to the mill's outfall pipe system, diffuser, and foam tank were also described in our report to allow for continued operation of the mill. TRC's conceptual cost opinions for modifications to the Sappi Mill are on the order of \$52 to \$55 million.

While the options TRC presented in our March 11 report are theoretically viable, much more additional study and design would be required to demonstrate viability for Sappi. For example, subsurface ground and bedrock surveys would need to be conducted to characterize the soils that could be encountered. Detailed engineering design analyses would need to be completed and reviewed by Sappi before proceeding further.

¹ The MDMR public hearing was rescheduled for March 15, 2021 due to inclement weather on February 16.

Mr. James Brooks
Sappi
August 18, 2021

As part of the March 11 report, TRC provided a preliminary environmental permitting matrix of possible local, state, and federal permits that could be required for the conceptual piping modifications based on TRC's expertise. However, no contact has been made with any permitting authority regarding the viability of these options. Importantly, TRC noted that permitting requirements may alter the conceptual design modifications, and additional time and design with permitting authorities is required.

TRC included in our report only the conceptual costs to obtain environmental permits, but we did not comment on the likelihood of obtaining such permits. TRC stands by our report conclusions that the permitting processes may significantly change one or both of the conceptual options, requiring additional design work by Sappi. In fact, one or more of the permitting agencies could deny these proposed options, which would severely limit Sappi's ability to continue mill operations. If Sappi cannot obtain the necessary water to supply the mill's operation, the mill will have to close.

In conclusion, if a MDEP denial of the Brookfield water quality certification results in the removal of the Shawmut dam, Sappi will be required to design, permit, and construct major modifications to its water intake and diffuser systems, and it is entirely possible that no such system could be designed, permitted, and constructed to provide sufficient water to meet the mill's demand. There are significant technical and permitting hurdles that would need to be crossed by Sappi, and all of these hurdles present significant risk to the continued operation of the Somerset mill.

If you have any questions regarding this information, please do not hesitate to contact me at 207-313-3675 or mbergeron@trccompanies.com.

Sincerely,



Mark Bergeron, P.E.
Environmental Operations Leader - Maine

EXHIBIT B

STATE OF MAINE
BEFORE THE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

AFFIDAVIT OF JAMES P. BROOKS

I, James P. Brooks, being first duly sworn, hereby depose and state as follows:

1. I am the Environmental Manager for Sappi North America Inc.'s Somerset Mill in Skowhegan, Maine. I have over 37 years of combined environmental management experience as an environmental regulator in Maine state government and as an environmental manager in the private sector, including the paper industry.

2. The Sappi Somerset Mill is an integrated pulp and paper making operation where we manufacture coated free sheet papers, packaging and specialty papers, and bleached Kraft pulp. The mill is capable of producing 1,700 tons of pulp and 2,800 tons of paper products per day and receives over 200 truckloads of wood products per day.

3. The Kennebec River is the only water source for the mill, and we use an average of 30 million gallons per day (MGD) for processing, cooling, and fire protection at the facility.

4. TRC Consulting has concluded that removal of the Shawmut Dam would lower the impoundment by 15-20 feet, so that the water level would be well below Sappi's water intake structure and would require significant modifications to the mill's water intake system and wastewater discharge outfall and diffuser.

5. TRC has estimated that it would cost in excess of \$50 million to remediate these impacts but, in my opinion, it is unlikely replacement process water intake facilities could even be designed and constructed to reliably provide the water needed to operate the Somerset Mill.

6. TRC's analysis came up with two shallow water withdrawal concepts: (1) a trench water extraction system, and (2) a series of deep well caissons with lateral water

extraction pipes under the river. The latter concept would draw through the sediment below the river to the wells; the extraction creates a hydrological flow.

7. Based on information and belief, the Nine Dragons (ND) mill in Old Town, Maine has a shallow water trench withdrawal system in the Penobscot River, which was installed in 2011 as a result of lower water levels due to the removal of a nearby dam. But the ND mill withdraws only 10-11 MGD, while the Somerset mill draws three times as much water – 30 MGD. Further, the ND mill has significant problems with its shallow water withdrawal system (e.g., ice and debris), enough so they are planning to abandon it and replace it with a piped water source originating from a dam approximately two miles upstream from the mill location.

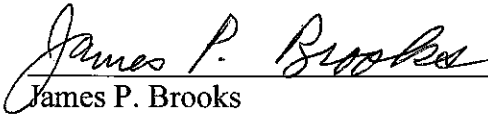
8. Our research has shown that the caisson well option has been installed mostly where there is a significant amount of sediment at the base of the water source. Based on the information we have, we believe there are significant areas of ledge (in addition to a limited amount of sediment) in the Kennebec River adjacent to the Somerset Mill. The installation of caisson wells could possibly create hydrogeologic flow in bedrock water, but that would likely result in local well water impacts because most homeowners have drilled wells and extract water from cracks in the bedrock. It is unlikely, in my opinion, that the caisson well option would provide sufficient water for Sappi's needs.

9. I believe that the caisson well option also is unlikely to be able to extract the volume necessary for the mill; the caisson systems we researched were sized in the 10-12 MGD range, for desalinization and power plant operations – not for 30 MGD paper mills.

10. I am not aware of any other paper companies with comparable process water intake systems.

11. If the Shawmut dam were removed, the existing wastewater diffuser would be above the lower water levels (estimated to be 4 to 6 feet). A new diffuser would have to be redesigned and placed downstream to a lower elevation and underneath the river water flow (we believe the width of the river would shrink by approximately 200'). Because of the shallowness of the water, other protective features (ripraps with cleaners) would also be designed to require more frequent maintenance and cleanings. All of this represents an expensively engineered system with significantly higher operating costs.

DATED: August 17, 2021


James P. Brooks

STATE OF MAINE
SOMERSET, SS.

August 17, 2021

Personally appeared before me the above-named James P. Brooks and made oath that the above-stated facts are true based upon his own personal knowledge, or his information and belief.

Before me,


Notary Public/Attorney-at-Law

Holly Saberi
Notary Public, State of Maine
My Commission Expires 5/17/2026



EXHIBIT C

Acheron

Engineering, Environmental & Geologic Consultants
www.AcheronEngineering.com

August 17, 2021

Mr. James P. Brooks
Sappi North America, Inc.
1329 Waterville Road
Skowhegan, ME 04976

Re: Draft WQC, Brookfield White Pine Hydro LLC, Shawmut Hydroelectric Project #L19751-33-H-N (DENIAL)

Dear Jim:

In accordance with your request, Acheron has reviewed the draft denial issued by the Maine Department of Environmental Protection (MDEP) of the Water Quality Certification (WQC) application for the Shawmut Hydroelectric Project, FERC P-2322 (Shawmut), on the Kennebec River in Fairfield, Maine. The project is owned by Brookfield White Pine Hydro LLC (Brookfield). Our understanding is that Brookfield has applied to the FERC for renewal of the license for the Shawmut facility and, as part of the renewal application process, has also applied to the MDEP for a WQC. On August 11, 2021 the MDEP released a draft denial of a WQC for the project. Without a WQC from the MDEP, FERC will be required to deny the new license. Denial of the new license for the Shawmut Project likely would necessitate surrender of the project license and potential future removal of the dam and its related appurtenances.

The principal reason for the denial of the WQC is related to passage efficiency for Atlantic salmon at the Shawmut project. Our understanding is that Brookfield has proposed to install a fish lift at the Shawmut Project. The licensee's estimated efficiency of fish survival (efficiency) is 96%. The MDEP has concluded in the denial of the WQC that the fish passage facilities must guarantee a passage efficiency of 99%.

The following are some of the issues raised by the MDEP's denial of the WQC for the Shawmut Project.

1. **Precedent:** We are not aware of any WQC previously issued by the MDEP that required a passage efficiency of 99%, or even a certain fish passage performance standard. However, we understand that fish passage standards have been prescribed elsewhere in Maine by federal fisheries agencies, including 95% upstream/96% downstream on the Penobscot River (Milford Dam), 90% at Ellsworth Dam on the Union River, and 95%/96% proposed/prescribed for the Pejepscot Dam on the Androscoggin River. These percentages are in line with what has been proposed by Brookfield and accepted by FERC in its draft Environmental Assessment.

Brookfield proposes to construct a new upstream anadromous fish lift adjacent to the 1912 powerhouse to provide volitional upstream passage for approximately 1,540,000 blueback herring, 134,000 alewife, 177,000 American shad, and 12,000 Atlantic salmon. Brookfield estimates that the proposed fish lift and related facility will achieve an adult salmon upstream survival standard of 96% for the Shawmut Project and accumulative adult upstream survival standard of 81.4% for the four lower Kennebec River projects combined. Brookfield further proposed to conduct up to two years of qualitative passage effectiveness studies using up to 20 adult salmon to evaluate the performance of the new fish lift. Once sufficient numbers of returning adult salmon are available (i.e., approximately 200 fish), Brookfield proposed to conduct a quantitative adult salmon upstream passage study to evaluate the cumulative upstream passage effectiveness of the fish passage facilities at the Shawmut Project and the other three lower Kennebec River projects. (We have assumed that both Brookfield and the MDEP are equating survival to passage effectiveness.)

The MDEP must establish standards for any license, permit, or WQC that are reasonable and based on sound science. The MDEP has not used a reasonable and science based standard in this instance, and has not acted consistently with its prior practice or the practice of fisheries agencies.

2. **Compliance Monitoring:** Whenever MDEP establishes a standard or limit in any license, permit, or WQC, MDEP also must establish a testing protocol to measure compliance with that standard. MDEP has not established a testing protocol in this instance, because it has denied certification. It is, however, common practice to measure fish passage effectiveness (survival) with a pit tag study.

Pit tag studies, as with any other type of compliance monitoring method, have a certain precision or variability. Fish passage effectiveness, or efficiency, is estimated by measuring the number of fish passing some upstream point compared to the number of fish passing a downstream point. In a pit tag study, the downstream value is the number of fish fitted with pit tags and released. The upstream measurement is typically accomplished electronically using a pit tag detection system.

Pit tag studies have certain factors that influence the accuracy of the estimates. Factors include:

- a. Expiration of fish samples due to the stress of trapping, handling, and pit tag insertion,
- b. Predation of some fish within the natural riverine habitat,
- c. Expiration of some fish due to natural causes,
- d. Loss of fish by fishermen, either inadvertent or intentional,
- e. Flows in the river that can impact passage in the natural habitat,
- f. Lack of stamina by some fish to swim from the release point to the exit of the lift,
- g. Loss of some fish due to exhaustion that is unrelated to man-made activities, and

*William B. Ball, PE
Acheron Engineering
Cell: 207-745-8224*

- h. Failure to record pit tag numbers at the upstream monitoring station due to failure of tags to transmit properly or the monitoring equipment to detect every tag correctly.

What the testing is trying to measure is the total number of fish that successfully navigate from point A to point B, find the entrance to the fish lift, and are successfully deposited upstream. It is reasonable to assume that 100% of the fish that enter the trap are deposited upstream. The variables are related to the fish finding the entrance to the trap plus the variables inherent in the study methodology. The product of the upstream value divided by the downstream value (passage efficiency) is influenced by all of these factors.

It is not uncommon for the losses caused simply by the study methods and procedure to be in the range of 10% to 15%. In other words, if 5 different pit tag studies were conducted in a given stretch of river, it is more likely than not that the results of 5 different studies will vary over a range of 10% to 15% because of all the variables inherent in study. A paper by Patrick J Connolly¹ of the USGS Western Fisheries Research Center, Columbia River Research Laboratory in Cook, Washington, addresses this very issue. Mr. Connolly estimated that the tag detection system used in his study had an 85% detection efficiency. Pit tag detection is just one of the factors that affect the overall efficacy of a pit tag study.

Thus, denying certification based on a difference of 3% in proposed fish passage efficiency is arbitrary, because it ignores the much greater variability in methodology used to measure that efficiency.

- 3. **Alternatives Analysis:** Nowhere in the draft denial do we find any discussion of alternatives. One potential option is of course removal of the dam and the hydroelectric generating facilities at the Shawmut Project. Every natural riverine system presents challenges to the upstream migration of fish species. The question is: what would the natural impediments to upstream fish migration likely be and what is the estimated efficiency of upstream migrants in a restored Kennebec River system if the Shawmut Dam were removed? It is unreasonable to assume that the natural efficiency would be 99%. There are a multitude of factors that adversely affect fish migration. The regulatory standard established by the MDEP should not be any higher than the estimated efficiency of a restored riverine system without the dam in place, and the failure to address that issue in the draft denial is a significant failure.

In addition, nowhere does the MDEP address the normal annual variation in fish passage effectiveness. Annual variations in river flow, temperature, dissolved oxygen, predation, and

¹ Chapter 7, Guidelines to Indirectly Measure and Enhance Detection Efficiency of Stationary PIT Tag Interrogation Systems in Streams, U.S. Geological Survey, Western Fisheries Research Center, Columbia River Research Laboratory, Cook, Washington, USA.

*William B. Ball, PE
Acheron Engineering
Cell: 207-745-8224*

other factors all contribute to large variations in the effectiveness of fish passage. Simply put, fish passage effectiveness will vary from year to year. With a 99% standard, there is no way to account for any natural variation. Every year, the licensee must achieve either 100% or 99% effectiveness. This is unreasonable and not based on science.

Thus, it would appear that DMR's 99% effectiveness recommendation is a sham intended to result in dam removal. This conclusion is supported by DMR's comments to DEP, in which DMR indicated that the estimated 96% efficiency of Brookfield's proposed fish lift will not be achievable because periodic false attraction flows may result in some Atlantic salmon not being able to locate the fishway entrance. This point, however, applies to all engineered fish passage systems, not just the one proposed here by Brookfield, so this comment makes clear that DMR knows that there is no engineered system that could achieve DMR's 99% efficiency recommendation, either. Which means that what DMR really wants is dam removal, as demonstrated by DMR's withdrawn Kennebec River Fisheries Management Plan amendment earlier this year.

In summary, the draft denial is not based on science or good engineering practice. Given the lack of science and engineering to support the draft denial, it seems clear that DEP is simply deferring to DMR's desire to have the lower Kennebec River dams removed; DEP normally bases its decision on science and this draft denial seems to be an aberration.

Sincerely,
Acheron Engineering Services

William B. Ball (Signature)

William B. Ball, PE
President

*William B. Ball, PE
Acheron Engineering
Cell: 207-745-8224*