REVIEW OF APPLICATION FOR CERTIFICATION BY THE LOW IMPACT HYDROPOWER INSTITUTE OF THE MALLISON FALLS HYDROELECTRIC FACILITY

Prepared by Patricia McIlvaine

November 30, 2017

I. INTRODUCTION

This report reviews the updated application submitted by S.D. Warren Company d/b/a S.D. Warren North America (S.D Warren or Applicant) dated September 1, 2017, to the Low Impact Hydropower Institute (LIHI) for Low Impact Hydropower Certification for the Mallison Falls Hydroelectric Project (P-2932-ME) (Mallison Falls or Project). A review of a draft application dated June 19, 2017, was made by the Reviewer, which resulted in an Intake Review Report and two consultation calls between the Applicant and Reviewer to address some questions. The final application was submitted September 1, 2017. This certification review was conducted in compliance with LIHI's Handbook, 2nd Edition, dated March 7, 2016.

The Mallison Falls Project is located on the Presumpscot River in southern Maine and is one of six hydropower projects owned by S.D. Warren. S.D Warren also owns a seventh non-hydropower dam, Cumberland Mills, which is the most downstream dam on the river.

The Mallison Falls site has been used for a variety of manufacturing purposes since c. 1740. The site was developed specifically for hydroelectric generation in 1900, when several local businesses formed the Mallison Falls Power Company to generate power for their mills. The site was later owned and operated by the Cumberland Power and Light Company, which was later acquired by Central Maine Power Company (CMP). Mr. Lawrence Keddy, owner of the Mallison Corporation, purchased the site in 1955, using the power generated for his Little Falls steel mill. The site was purchased in 1974 by S.D. Warren.

The Mallison Falls Project was originally licensed by the Federal Energy Regulatory Commission (FERC) in 1980, and currently holds a 40-year license issued on October 2, 2003, and a Water Quality Certification from the Maine Department of Environmental Protection (MEDEP) issued May 1, 2003. S.D. Warren's hydroelectric Projects operate continuously to generate electricity that is used at S.D. Warren's paper mill at Westbrook. Capacity and energy in excess of that used by the mill is sold on the open market. Nameplate capacity is reported at 0.8 MW with an annual generation of 4,200 MWh.

II. PROJECT'S GEOGRAPHIC LOCATION

The Mallison Falls Project is located on the Presumpscot River in South Windham and Gorham, Cumberland County Maine. Latitude and longitude are 43°43'39.17" N and 70°25'11.10" W.

The river originates at the headgate of the Eel Weir Hydroelectric Project at the outlet of Sebago Lake and extends roughly 25 miles southeast to the Atlantic Ocean at Casco Bay. Mallison Falls is located at river mile 16.4 and is the third most downstream dam on the river. Figure 1 in Appendix A illustrates the location of the Mallison Falls Project along with the seven other dams on the river. All are owned by S.D. Warren except the North Gorham Hydropower Project, which is owned by Brookfield Renewable Energy Group. The North Gorham Project was certified by LIHI (Certification # 129) effective April 27, 2016. S.D. Warren has submitted applications to LIHI for certification review for the five projects noted below in bold. These dams are identified as follows beginning with the head waters:

Facility Name	River Mile	FERC Project #
Eel Weir Hydropower Project	25.0	P-2984
North Gorham Hydropower Project	23.6	P-2519
Dundee Hydropower Project	21.9	P-2942
Gambo Hydropower Project	18.6	P-2931
Little Falls Hydropower Project	16.9	P-2941
Mallison Falls Hydropower Project	16.4	P-2932
Saccarappa Hydropower Project	11.3	P-2897
Cumberland Mills Dam	10.3	Not hydropower

S.D. Warren filed a license surrender application in 2015 for the Saccarappa Project, with plans to remove the spillways and install upstream passage for anadromous species. Discussion of this filing as it pertains to the Mallison Falls Project is discussed under Section **V – Regulatory and Compliance Status.** The Cumberland Mills dam impoundment is used for non-contact cooling, process water and fire suppression for adjacent mill operations. The Smelt Hill Dam, which was formerly located downstream of the Cumberland Mills facility, was removed in October 2002.

Watershed area at the dam is 501 square miles, as noted in the Project's Exhibit A per a follow-up email from the Applicant. Seven tributaries feed the Presumpscot River between Sebago Lake and the Saccarappa Project.

III. PROJECT AND IMMEDIATE SITE CHARACTERISTICS

The Mallison Falls Project, which operates in a run-of-river mode, consists of the following features:

- a 358-foot-long, 14-foot-high diversion dam, consisting of a 113.5-foot-long cut granite spillway section, a 174.5-foot-long reinforced concrete spillway section, and a 70-foot-long canal headgate structure;
- a 675-foot-long, 41-foot-wide, and 6-foot-deep intake canal;
- a 33-footwide by 51-foot-long powerhouse containing two vertical Francis turbines direct connected to generators, each with an installed capacity of 0.4 MW for a total rated generating capacity of 0.8 MW and a reported annual generation of 4,200 MWh:

- an 11-kV transmission line tied into the Gambo Project transmission line;
- a 675-foot-long bypass reach between the dam and powerhouse tailwaters, the lower 375 feet of which is backwatered by discharges from the Mallison Falls powerhouse and by the downstream Saccarappa Project impoundment as noted in the FERC license;
- a 0.5-mile-long impoundment extending from the Mallison Falls dam upstream to the tailwaters of the Little Falls Project, with a surface area of approximately 8 acres, and a maximum water surface elevation of 90.5 feet mean sea level (msl);
- an upstream passage for American eel; and
- a reported average annual flow at the dam of 926 cubic feet per second (cfs).

Appendix A includes figures and photographs of the Project. Figure 2 is an aerial of the Project. Photographs in Exhibit 1 show key Project features. Photographs in Exhibits 2 through 4 show the Zones of Effect of the Project.

Project equipment is original. S.D. Warren reported that the most significant modifications have been replacement of the canal gates and repairs to the tailrace, both done in 2016.

IV. ZONES OF EFFECT

Three Zones of Effect (ZOEs), noted below, are being evaluated for this Project. Photographs in Exhibits 2 through 4 show these zones of effect. They include:

1. The regulated reach starting at the Project tailrace;
2. The bypass reach; and
3. The impoundment above the dam, noted as bounded by elevation contour 90.5 ft. MSL and the dam structure.

V. REGULATORY AND COMPLIANCE STATUS

FERC Licensing

The Mallison Falls Dam has a FERC License, P-2932-ME, issued on October 2, 2003, with an expiration date of October 1, 2043. Although the original license did not expire until 2002, in 1996, at S.D. Warren's request, all of the licenses for the Presumpscot River Projects, except Eel Weir, were modified to expire on January 26, 2001, to enable a coordinated review at relicensing. Intervention status was granted in the multi-project proceeding to a large number of organizations, including the U.S. Department of the Interior, representing US Fish and Wildlife Service (USFWS) and National Park Service; Friends of the Presumpscot River (FOPR); Friends of Sebago Lake (FOSL); Maine Council of the Atlantic Salmon Federation (Maine Council); the State of Maine, including the State Planning Office; Maine Department of Marine Resources (MDMR), Maine Atlantic Salmon Commission (MASC), and Maine Department of Inland Fisheries and Wildlife (MDIFW); Trout Unlimited; U.S. Environmental Protection Agency (EPA); Allan Desjardin; American Rivers and Representative Janice E. Labrecque of the Maine House of Representatives. Based on review of the FERC license, only FOPR opposed the relicensing of Mallison Falls, along with that of the Little Falls, and Saccarappa Projects. A

multi-project Draft Environmental Impact Statement (DEIS) was issued on October 5, 2001, with comments received from 12 entities and three individuals, which were incorporated into the Final Environmental Impact Statement (FEIS) issued June 26, 2002. Ultimately, five Projects (Saccarappa, Mallison Falls, Little Falls, Gambo and Dundee) simultaneously received a new license with similar requirements.

The key new requirements of the license are listed below and discussed under the applicable criteria:

- Run-of-river operation;
- release of seasonal minimum or inflow, whichever is less, to the bypassed reach;
- future installation of upstream and downstream fish passage facilities for American shad and river herring, as generally prescribed by USFWS;
- design and installation of upstream eel passage facilities and monitoring requirements;
- implementation of a plan for downstream eel passage; including unit shutdowns;
- development of an impoundment drawdown management plan;
- development of a Historic Properties Management Plan (HPMP); and
- development of a recreational facilities enhancement plan and monitoring plan.

Mallison Falls' FERC license has been amended three times in 2013, 2016 and February2017, all tied to delays in fish passage installation deadlines and two other times for extension to deadlines for recreational facility development. Upstream and downstream anadromous fish passage requirements are at all of S.D. Warren's Presumpscot River projects, and are inter-related, as the schedule at each site is based on designated numbers of fish arriving at the next downstream project. The new license for the Saccarappa Hydroelectric Project (FERC No. P-2897), issued October 2, 2003, required passage contingent on fish passage installation at the downstream, non-jurisdictional Cumberland Mills Dam. During the spring of 2013 upstream and downstream fish passage became operational at Cumberland Mills, triggering the requirement for fish passage construction at Saccarappa. After evaluating all possible options, S.D. Warren determined that installing fish passage while continuing to operate the Saccarappa Project was not economical, and in December 2013, S.D. Warren began the process of surrendering the license and decommissioning of the Saccarappa Project.

Since the initial surrender application filing in 2015, there has been extensive discussion with Federal and State resource agencies, the City of Westbrook, and local non-governmental organizations about how to meet the environmental goals for the Presumpscot River. These discussions resulted in S.D. Warren's withdrawal of the surrender application on two separate occasions to modify the original fish passage design proposal, and eventually arriving at the November 2016 Settlement Agreement (SA). The SA was finalized on November 15, 2016 and used as the basis for extensions of the fish passage deadline at Saccarappa, as well as for the Mallison Falls Project and the other sites. S.D. Warren is currently awaiting final design plans in order to prepare and submit a final surrender application with the agreed upon terms and designs. Parties to, and in support of, the SA include: United States Department of the Interior (USDOI), United States Fish and Wildlife Service (USFWS), MDMR, Conservation Law

Foundation (CLF), the Friends of the Presumpscot River (FOPR), the City of Westbrook, Maine, and S.D. Warren.

Appendix B provides a summary of the numerous actions and filings relative to fish passage. As noted in this summary, amendments have been made to the Section 18 mandatory prescriptions issued by USFWS. Not shown on this summary however, is the fact that Motions to Intervene and Protests have been filed in early 2017 with FERC relative to the Settlement Agreement by Friends of Merrymeeting Bay (FOMB), Ed Friedman, FOMB Chair, Friends of Sebago Lake (FOSL) and Douglas A. Watts. FERC has not yet taken action on the Settlement Agreement. As noted in their February 14, 2017 Order, FERC stated that the licensee would need to amend its application for surrender of the Sacarrappa Project before the Commission takes any action on the Settlement Agreement and that FERC will review any arguments opposing the settlement at that time. Implications of SA fish passage requirements to the Mallison Falls Project's satisfaction of LIHI's fish passage criterion are discussed under **Criterion C – Upstream Fish Passage.**

Water Quality Certification

A new Water Quality Certification (WQC), #L-19716-33-E-N, was issued May 1, 2003, by MEDEP. One WQC was issued applicable to Sacarrappa (P-2897), Mallison Falls (P-2932), Little Falls (P-2941), Dundee (P-2942), and Gambo (P-2931). It included minimum flow requirements, impoundment drawdown and refill requirements, upstream and downstream passage for eel and anadromous species, passage effectiveness testing, reaeration measures via spillage at the Gambo and Dundee Projects to improve dissolved oxygen levels in the river downstream of these dams, study of the effectiveness of the spillage and other measures in meeting Class B dissolved oxygen standards in the river and enhancement of recreational features.

Two modifications were issued in July 2008; one to address changes to the upstream eel passage requirements, and one to address changes to WQC Condition #7(A), recreation. A Minor Revision was issued in November 2012 to address modifications to the approved Recreation Plan. More recently, a minor revision was issued on May 27, 2016, and another on December 27, 2016, both to address fish passage requirements at the Saccarappa Project (FERC No. 2897) and by default, the other Presumpscot River Projects. Another amendment application to change the deadline of the fish passage effectiveness testing to align with goals of the resource agencies was appealed by an NGO, and ultimately withdrawn.

License and WQC Compliance

My review of FERC's eLibrary indicated no compliance issues. The application included recent letters from USFWS, MEDEP, MDMR and Maine Department of Agriculture, Conservation and Forestry, none of which indicated compliance issues with the Project.

VI. PUBLIC COMMENT RECEIVED OR SOLICITED BY LIHI

Letters from USFWS, MEDEP, MDMR, MDIFW and Maine Department of Agriculture, Conservation and Forestry, included in the application, all were complementary of the efforts made by S.D. Warren in meeting their environmental obligations. They also supported certification of the Project.

The deadline for submission of comments on the LIHI certification application was November 7, 2017. One joint comment letter was received from the Conservation Law Foundation (CLF) and Friends of the Presumpscot River (FOPR). This letter, along with a response letter submitted by the Applicant, are contained in Appendix C. Supporting documents that accompanied the CLF/POPR letter are included in the comment letter found on LIHI's website. The following is my assessment of the comments made in the CLF/FOPR letter. The letter from S.D. Warren makes many of the same points I discuss below.

While the CLF/FOPR letter format suggests three comments are made, I believe the comment in Section II and Section III-B are essentially duplicative, resulting in basically two comments:

1. The Mallison Fall, Little Falls, Gambo, Dundee and Eel Weir Projects should not be certified as "low impact" until anadromous fish passage is installed and tested as providing safe passage at these sites.
2. The Mallison Falls and Little Falls Projects are not eligible for LIHI Certification since they were recommended for removal by resource agencies, namely the USFWS, MDMR and Maine Atlantic Salmon Commission during a "legal proceeding".

Assessment of Comment #1

CLF/FOPR's position that a facility is not "low impact" until fish passage has been installed and proven to provide safe passage, reflects the fact that the definition of "low impact" is in the eye of the beholder, and can mean different things to different individuals. However, LIHI's definition, as clearly detailed in LIHI's Handbook, 2nd Edition, dated March 7, 2016, is specifically based on meeting certain criteria and standards. It is my opinion that S.D. Warren is in "conditional" compliance with the LIHI criteria and the selected standard of satisfying resource agency requirements for upstream and downstream fish passage. (See discussions under these criteria for more detail). S.D. Warren has agreed to a schedule of installing and then evaluating anadromous fish passage. The triggers setting the timeline for achieving these commitments have been approved most recently by the resource agencies responsible for fish passage issues, namely the USFWS and MDMR, as signatories to the 2016 Saccarappa Settlement Agreement (SA). Criteria conditions have been recommended for both upstream and downstream passage since the "trigger" for installing anadromous fish passage facilities at these sites have not yet occurred. Thus, my recommendation is that LIHI must be kept current on the status of reaching these triggers and implementation of their passage commitments.

It is interesting to note that both CLF and FOPR were signatories to the 2016 SA, and as such, would appear to support that the passage plans established in it are agreeable to them. In fact, in a letter dated December 27, 2016 to the MEDEP supporting an amendment to the WQC which addresses all of the S.D. Warren Projects except Eel Weir, these two organizations clearly state

their support of the delayed deadline to May 2019, of operational upstream passage for anadromous fish at the Saccarappa Project, established in the SA, and by default the other upstream S.D. Warren projects. (A copy of this letter is contained in Appendix C.) In that letter, they also state:

> "Our support of the SA and the Application is shared by the state and federal agencies charged with restoring indigenous anadromous fish to Maine's coastal rivers and watersheds, as made clear in the December 22, 2016 letter to you from Commissioner Keliher. CLF, FOPR, DMR and FWS have been deeply engaged in the effort to restore native species to the Presumpscot on a sustained basis for close to two decades. After contested proceedings with Warren concerning the WQC initially issued to Warren for the Presumpscot projects in 2003, further contested proceedings surrounding fish passage at the Cumberland Mills dam just below the Saccarappa project in 2009, and opposition to Warren's initial proposal to surrender the Saccarappa project in 2013 and 2015, the parties to the SA have agreed for the first time on a solution to restore native species to their indigenous habitat throughout the Presumpscot watershed."

In their 2017 comment letter, CLF and FOPR do not dispute that, based on what they know, S.D. Warren is currently in full compliance with the requirements of the USFWS's 2002 fishway prescription and Maine DEP's 2003 water quality certification. This in essence, shows their agreement that the Warren Projects are in compliance with LIHI's criteria and S.D. Warren's selected standard. Therefore, I believe my assessment that the Project should be certified with certain conditions meets LIHI's requirements, despite the positions forwarded in the CLF/FOPR letter.

Assessment of Comment #2

The second comment is that Little Falls and Mallison Falls Projects are not eligible for LIHI certification because the Projects were recommended for removal by a resource agency(ies) during the licensing process, either as a license condition or during commenting on the Draft Environmental Impact Statement (DEIS). I have reviewed the documents they reference in their letter, including the DEIS, Final Environmental Impact Statement (FEIS) and the actual agency comment letters.

The CLF-FOPR letter provides a January 31, 2001 letter from MASC as "evidence" of their recommendation for dam removal as a condition of the FERC license, although I believe that the letter's closing statement, which includes the actual "recommendation", is that FERC should require fish passage. (It should be noted that the MASC was eliminated by state statute in 2010.)

It is my interpretation that in contrast to what CLF-FOPR reports, starting on page 21 of the FEIS, FERC summarizes the comments to the DEIS from the NGO's to be to "recommend dam removal" but states that comments from the agencies were to "install fish passage" and to "assess dam removal" as an alternative to re-licensing. My review of the agency comment letters on the DEIS (MASC dated November 27, 2001; MDMR dated November 28, 2001, Department of Interior (USFWS) dated December 3, 2001) all address criticism of FERC's dam removal alternative assessment. However, such criticism of the alternative assessment is not an agency

recommendation under LIHI's Handbook. None of these agencies state that they recommend removal of the Little Falls or Mallison Falls Projects in these letters.

Should S.D. Warren elect to remove either or both the Little Falls or Mallison Falls Projects rather than install mandated anadromous fish passage facilities, as included as an option in the 2016 SA, that would be an economic decision made by them, and not an action responding to a resource agency recommendation.

Due to the completeness of the agency correspondence provided in the application, the only agencies contacted directly by the Reviewer were to the following individuals. These discussions under summarized under **Criterion D – Downstream Fish Passage.**

- Steven Shepard – USFWS - (207) 866-3344, ext. 1116; steven_shepard@fws.gov
- Gail Wippelhauser – MDMR - (207) 624-6349; gail.wippelhauser@maine.gov

VII. SUMMARY OF COMPLIANCE WITH CRITERIA

The following matrices summarize the standards selected by the Applicant as applicable to this Project. The Reviewer found that these standards are appropriate. Details of compliance are presented in Section VIII.

ZOE #1 - Regulated Reach (Tailwater) and ZOE#2 – Bypass Reach

Criterion		*Standards Selected*				
		1	***2***	***3***	***4***	***Plus***
A	**Ecological Flow Regimes**		X			
B	**Water Quality**		X			
C	**Upstream Fish Passage**		X			
D	**Downstream Fish Passage**	X				
E	**Watershed and Shoreline Protection**	X				
F	**Threatened and Endangered Species Protection**	X				
G	**Cultural and Historic Resources Protection**		X			
H	**Recreational Resources**		X			

ZOE #3– Impoundment

Criterion		*Standards Selected*				
		1	***2***	***3***	***4***	***Plus***
A	**Ecological Flow Regimes**	X				
B	**Water Quality**		X			
C	**Upstream Fish Passage**	X				
D	**Downstream Fish Passage**		X			
E	**Watershed and Shoreline Protection**		X			
F	**Threatened and Endangered Species Protection**	X				
G	**Cultural and Historic Resources Protection**		X			
H	**Recreational Resources**		X			

VIII. 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.

Standards: All river reaches where stream flows are altered by the facility shall be defined. In all locations, appropriate flow management should apply an ecosystem based approach that supports fish and wildlife resources by considering base flows, seasonal variability, high flow pulses, short-term rates of change, and year-to-year variability. Compliance with one of the alternative standards identified in the Low Impact Hydropower Certification Handbook issued March 7, 2016 must also be demonstrated.

Assessment of Criterion Passage:

The Applicant has selected and demonstrated compliance with **Standard A-1, Not Applicable/De Minimis Effect** to pass the Ecological Flow Regimes criterion for ZOE #3 Impoundment and **Standard A-2, Agency Recommendation** for ZOE #1 Regulated Reach and ZOE #2 Bypass Reach. These standards require:

- ***"STANDARD A-1. Not Applicable/De Minimis Effect***: The Facility operates in a true run-of-river operational mode and there are no bypassed reaches or water diversions associated with the Facility; or the facility is located within an existing water conduit that does not discharge into natural waterways.

- ***STANDARD A-2. Agency Recommendation***: The flow regime at the Facility was developed in accord with a site specific, science based agency recommendation."

Presumpscot River flows are regulated by releases from the Eel Weir Project (FERC No. P-2984), also owned by S.D. Warren. The flows are typically set on a weekly basis and regulated by the Eel Weir License and the Eel Weir Operations and Flow Monitoring Plan. Additional flows are provided by some small tributaries that join the Presumpscot River below Sebago Lake. Compliance with license requirements is verified by station operators. Any changes to flow are made manually by the S.D. Warren Operations Crew that visits the site daily.

The Mallison Falls Project operates as a run-of-river facility with a minimum flow of 60 cubic feet per second (cfs) from May 1 through October 31; and 40 cfs from November 1 through April 30. These flows are passed downstream of the Project via spillage to the bypass reach to maximize reaeration. Restrictions on impoundment dewatering and re-filling are also required. These requirements were based on a number of studies and assessments made by the MEDEP during Project relicensing to meet water quality and fish habitat goals. They were established in the May 2003 WQC, and adopted into the October 2003 FERC license; none were affected by any WQC or license amendments. The required Project Operations and Flow Monitoring Plan was established and approved by applicable resource agencies and adopted by FERC. It was revised in 2008 and 2009 with support from the resource agencies.

Review of FERC's eLibrary confirmed compliance with these requirements for 2012 and 2013. As FERC no longer requires submission of annual statements certifying compliance with license flow requirements as of 2014, S.D. Warren submitted statements confirming that no deviations have occurred between January 2014 and June 2017. As required, notice and follow-up reports were provided to the resource agencies and FERC of the planned drawdown in September 2015. Correspondence from the MEDEP dated May 31, 2017, and MDMR dated June 8, 2017, submitted with the application, confirmed that the Project appears to be operated in compliance with these requirements.

This Project Passes Criterion A – Ecological Flow Regimes

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.

Standards: Compliance with the appropriate state/provincial or federal water quality standards must be demonstrated with all waterbodies where water quality is directly affected by the facility, including those affected areas outside the facility boundary. In all cases, if any waterbody directly affected by the facility has been defined as being water quality limited (for example, on a list of waters with quality that does not fully support designated uses), it must be demonstrated that that the facility has not contributed to that substandard water quality. Compliance with one of the alternative standards identified in the Low Impact Hydropower Certification Handbook issued March 7, 2016 must also be demonstrated.

Assessment of Criterion Passage

The Applicant has selected and demonstrated compliance with **Standard B-2, Agency**

Recommendation to pass the Water Quality criterion for all three ZOEs. This Standard requires:

> ***"STANDARD B-2. Agency Recommendation:*** The facility is in compliance with all water quality conditions contained in a science-based agency recommendation providing reasonable assurance that water quality standards will be met for all waterbodies that are directly affected by the facility (for example, a recent Water Quality Certification issued pursuant Section 401 of the Clean Water Act). Such recommendations, whether based on a generally applicable water quality standard or one that was developed on a site-specific basis, must include consideration of all water quality components necessary to preserve healthy fish and wildlife populations, human uses and recreation."

As noted previously, the flow requirements in the WQC, key to meeting water quality standards, were based on a number of studies and assessments made by the MEDEP, and therefore are scientifically based.

The Presumpscot River in this location is listed as Class B. Due to impoundments and alterations to flow regime of the river, this section of the Presumpscot River was historically listed as water quality limited due to low dissolved oxygen (DO). The most recent MEDEP report, the 2014 Integrated Water Quality Monitoring and Assessment Report, denotes this river segment to be Category 4-C: Rivers and Streams with Impairment Not Caused by a Pollutant. It indicates the cause for impairment is low dissolved oxygen, but that increased flows expected to be released from Eel Weir (and now are) would remedy the problem.

The increased minimum flows have resulted in full attainment of the dissolved oxygen standard as evidenced by continuous monitoring in the upstream Gambo Project (P-2931) impoundment, and reports to the MEDEP for the 2015 and 2016 monitoring seasons. The latest report shows that dissolved oxygen criteria were met for the 2016 monitoring season with no times of DO non-attainment. The May 31, 2017 letter from the MEDEP denotes:

> "Therefore, based on the Department's review of the referenced Presumpscot River hydropower project files and available water quality data, the Department concludes that S.D. Warren is currently in compliance with its WQC conditions and the projects attain Water Quality Standards."

Although the WQC also includes anadromous fish passage requirements, these have not yet been triggered as discussed further below. WQC recreational requirements are addressed under **Criterion H – Recreational Resources**.

This Project Passes Criterion B – Water Quality

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, sustainable fish and wildlife resources in areas affected by the facility.

Standards: The applicant shall list all migratory fish species (for example, anadromous, catadromous, and potamodromous species) that occur now or have occurred historically at the Facility. Maintenance of upstream passage sufficient to support sustainable populations of these migratory species must be demonstrated by compliance with one of the alternative standards identified in the Low Impact Hydropower Certification Handbook issued March 7, 2016.

Assessment of Criterion Passage

The Applicant has selected and demonstrated compliance with **Standard C-2, Agency Recommendation** to pass the Upstream Fish Passage criterion for ZOE #1 Regulated Reach and ZOE #2 Bypass Reach and **Standard C-1, Not Applicable/De Minimis Effect** for ZOE #3 Impoundment. These standards require:

> ***"STANDARD C-1. Not Applicable/De Minimis Effect:*** The facility does not create a barrier to upstream passage, or there are no migratory fish in the vicinity of the facility and the facility is not the cause of extirpation of such species if they had been present historically.
>
> ***STANDARD C-2. Agency Recommendation:*** The facility is in compliance with science-based fish passage recommendations from appropriate resource agency(ies) which have been issued for the facility and which include provision for appropriate monitoring and effectiveness determinations."

The impoundment (ZOE #3) does not pose a barrier to upstream passage so standard C-1 is appropriate.

At this time, the most environmentally stringent agency recommendation regarding fish passage is the WQC issued by the MEDEP. The requirements align with a Section 18 Fishway Prescriptions issued by the USFWS. State resource agencies support the federal requirements. With regard to upstream fish passage, the current WQC conditions are summarized as follows:

- Within 2 years of license issuance upstream eel passage facilities shall be installed;
- A phased implementation of anadromous fish passage facilities to pass target numbers of Atlantic salmon, American shad and blueback herring annually as determined by MDMR, MDIFW, and MASC.
    - Phase I - A Denil "fish ladder," or other passage facilities of comparable efficiency in passing the target species, designed to pass at least 3,100 American shad, 19,000 blueback herring, and 15 Atlantic salmon annually. These facilities, which shall include a counting, trapping and sorting facility, must be operational no later than 2 years after passage of at least 2,960 American shad or 18,020 blueback herring in any single year at the downstream Saccarappa Project.
        - Phase II - Convert or replace the Phase I passage facilities with a fish lift, or other passage facilities of comparable efficiency in passing the target species, designed to pass up to 43,000 American shad, 263,000 blueback herring, and 168 Atlantic salmon annually. These facilities, which shall include a counting, trapping and sorting facility, must be operational no later than 2 years after (1) notification from the MDMR,

MDIFW, and MASC of initiation of Phase II restoration above Gambo Dam and (2) the capacity of the installed Phase I passage facilities has been reached for any of the target species.

Eel Passage Status

Pursuant to the FERC License and WQC conditions, S.D. Warren filed an Upstream American Eel Passage Plan with FERC on October 29, 2004, which was reviewed by the resource agencies and approved by FERC. Passage was installed for the 2006 season following required assessment of the best location for the ramp in 2000 and 2005.

In accordance with WQC condition #3, S.D. Warren, in consultation with the Agencies, submitted a study plan for the installed eel passage – "Study Plan, Evaluation of Upstream Eel Passage Effectiveness." The study was executed during the summer of 2014 and submitted to FERC on April 1, 2015. As noted in the application, and review of the 2014 report, due to the condition and location of the eel ramp at Mallison Falls, close observations of the ramp entrance during the 2014 testing were limited. These observations however did show that eels were passing upstream by utilizing gaps in the masonry, as opposed to the ramp, thus the passage facility at Mallison Falls Project did not significantly enhance passage. S.D. Warren concluded that major modifications to the eel ramp at Mallison Falls Project, based on the limited observations made, would be premature. S.D. Warren also reported during a consultation call with the reviewer, that the plugging of abandoned penstocks in the abutment adjacent to the ramp has apparently reduced attraction flow at the eel ramp. S.D. Warren proposed to make limited changes by improving access to the existing ramp and re-directing flow to the ramp base to increase attraction flow. They will also conduct a new study on this facility in 2018. Emails from the USWFS (dated March 19, 2015) and MDMR (dated December 9, 2014) included in the 2014 report confirm agency approval of this proposal to make some minor changes and to re-study use of the passage ramp.

A condition has been recommended to keep LIHI updated regarding the results of the 2018 eel passage study, to determine if in fact safe and effective upstream eel passage is being provided.

Anadromous Fish Passage Status

At present, there are no anadromous fish passage facilities at the Mallison Falls Project, as the biological triggers at the Saccarappa Project that would initiate the construction of passage facilities at upstream projects including the Mallison Falls Project have not yet been met. License Article 407 requires the development of a Fish Passage Implementation Plan to include installation, operation, maintenance, and evaluation of anadromous fish passage facilities. The primary purpose of the Fish Passage Implementation Plan is to monitor the need for fish passage facilities at the Project. The Fish Passage Implementation Plan was approved by FERC on December 13, 2004. S.D. Warren filed its most recent Anadromous Fish Passage Annual Report on June 30, 2017.

Final adoption and implementation of the Settlement Agreement (SA) would set the schedule for when the passage facilities would be installed, and partial dam removal take at the Saccarappa Project. It is important to note that adoption of the SA would change the current passage

requirements to be:

> "Upon the occurrence of 2,960 American shad or 18,020 blueback herring passing in any single season at the Saccarappa fish counting facility, Warren shall either (1) two years thereafter construct the fish passage as required by the Mallison Falls Project FERC license, or (2) three years thereafter surrender its FERC license, having proposed in its surrender application to remove, at a minimum, all dam spillways at the project."

Thus, there is a potential that the Mallison Falls dam would be removed rather than fish passage installed. As noted in Section VI above, should S.D. Warren elect to remove either or both the Little Falls or Mallison Falls Projects rather than install mandated anadromous fish passage facilities, as included as an option in the 2016 SA, that would be an economic decision made by them, and not an action responding to a resource agency recommendation.

The latest Mallison Falls FERC license amendment (which applied to all S.D. Warren Presumpscot River Projects except Eel Weir), dated February 14, 2017, adopted USFWS revisions to the Section 18 Mandatory Prescription, which changed anadromous fish upstream passage schedule that applies to the Saccarappa Project. This amendment to the fish passage prescription changed the deadline of operation of permanent fish passage facilities at the Saccarappa Project to be within five years of installing the fishway at the Cumberland Mills Dam, and not two years, as originally required by the Saccarappa license. As the passage was installed at Cumberland Mills in 2013, then upstream passage at Sacarrappa would have been required by 2015, but the Mandatory Prescription delays the deadline to 2018. The Prescription did not directly change the requirements for fish passage at the upstream Projects of Mallison Falls, Little Falls, Gambo, and Dundee, as these require passage installation when certain downstream passage metrics are met, and are not tied to specific dates. However, the delay in requiring fish passage at the Saccarappa Project delays the timing for when fish passage at the upstream Projects is required.

A condition has been recommended to annually keep LIHI abreast of the status and schedule for installation of upstream anadromous fish passage at Mallison Falls, as it is possible that activities may be initiated within the recommended five-year LIHI certification period.

This Project Conditionally Passes Criterion C – Upstream Fish Passage

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. All migratory species are able to successfully complete their life cycles and to maintain healthy, sustainable fish and wildlife resources in the areas affected by the Facility.

Standards: The applicant shall list all fish species (for example, riverine, anadromous, catadromous, and potamodromous) that occur now or have occurred historically in the area affected by the Facility. To pass the downstream fish passage and protection criterion, compliance

with one of the alternative standards identified in the Low Impact Hydropower Certification Handbook issued March 7, 2016 must be demonstrated.

Assessment of Criterion Passage

The Applicant has selected and demonstrated compliance with **Standard D-1**, **Not Applicable/De Minimis Effect** for ZOE #1 Regulated Reach and ZOE #2 Bypass Reach and **Standard D-2, Agency Recommendation** for ZOE #3 to pass the Downstream Fish Passage and Protection criterion. These standards require:

> ***"STANDARD D-1. Not Applicable/De Minimis Effect:*** The facility does not create a barrier to downstream passage, or there are no migratory fish in the vicinity of the facility; if migratory fish had been present historically, the Facility is not responsible for extirpation of such species; the Facility does not contribute adversely to the sustainability of riverine fish populations or to their access to habitat necessary for the completion of their life cycles.
>
> ***STANDARD D-2. Agency Recommendation:*** The Facility is in compliance with a science-based resource agency downstream fish passage or fish protection recommendations, which may include provisions for ongoing monitoring and effectiveness determinations that have been issued for the Facility***."***

Eel Passage Status

Applicable to ZOE #3, Article 406 of the FERC License, which incorporates the USFWS Section 18 Mandatory Prescription, requires annual Project shutdowns beginning at sunset and lasting at least 8 hours per night from September 1 through October 31 to facilitate American eel downstream migration. The exact timing of the Project shutdown is determined each year in consultation with MDMR and the USFWS. (Emails from 2015 showing this consultation were provided). This operational requirement began on September 1, 2004 and has been in effect every year since then. The generation shutdown ensures safe migration for American eels by providing flows over the spillway that can be used to migrate into the bypass. The application included Station Log shutdown data for 2014-2016 which supported S.D. Warren's position that they are in compliance with these requirements.

Testing of the effectiveness of the downstream eel passage at Mallison Falls has been delayed with the concurrence of the USFWS and MDMR, since it was jointly decided that such testing would make more sense once the downstream eel passage facility was installed at the Eel Weir Project, which is at the outlet of Sebago Lake. This testing delay also applies to Little Falls, Gambo and Dundee Projects. The Eel Weir downstream passage went into operation on August 15, 2017, and is currently undergoing its first season of testing. Based on the results of this testing, which is expected to be available by the end of the year, more comprehensive testing involving assessment at the downstream dams will be designed and implemented following consultation with MDMR and USFWS. Timing of this testing has not yet been identified. Outreach to both MDMR (Gail Whipplehauser) and USFWS (Steven Shepard) has confirmed this plan, and also confirmed that such testing would also help resolve past concern expressed by these agencies regarding use of spillage as the means of downstream passage. Emails received from these individuals are included

in Appendix D. A condition has been recommended regarding the future downstream eel passage testing at Mallison Falls.

Anadromous Fish Passage Status

The Regulated Reach (ZOE #1) and Bypass Reach (ZOE #2) do not impact access to habitat below the Mallison Falls Project Dam. These areas do not contain any barrier to downstream passage. Additionally, the studies conducted as part of the relicensing process and considered by MEDEP for WQC issuance resulted in the development of year-round minimum flow requirements to maintain adequate fish and wildlife habitat.

Regarding ZOE #3, the Impoundment, License Article 407 requires the development of a Fish Passage Implementation Plan to include installation, operation, maintenance, and evaluation of anadromous fish passage facilities. The Fish Passage Implementation Plan was approved by FERC on December 13, 2004. WQC Condition #5 requires downstream anadromous fish passage for American shad, blueback herring, and Atlantic salmon to be installed at the earlier date of either of the following:

- Concurrent with the completion of upstream anadromous fish passage; or
- Within 2 years following notification from MDMR or the MASC of sustained anadromous fish stocking above the Mallison Falls Dam.

Additionally, WQC Condition 5D and 5E, and License Article 406 require that a study be conducted in consultation with MDMR and MASC to determine the effectiveness of the upstream and downstream anadromous fish passage facilities upon completion and initiation of operation.

Currently, there are no upstream nor downstream anadromous fish passage facilities at the Mallison Falls Project, and the deadline for such installation is contingent upon reaching biological triggers at the next downstream dam. To date, notice has not been received from any resource agency of sustained anadromous fish stocking above the Mallison Falls Dam. Effectiveness studies will be initiated once the facilities have been installed at the Mallison Falls Project.

The condition recommended to address the status of upstream anadromous fish passage includes a requirement to also advise LIHI of the status of downstream anadromous fish passage.

The Project Conditionally Passes Criterion D – Downstream Fish Passage and Protection

E. SHORELINE AND WATERSHED PROTECTION

Goal: The Facility has demonstrated that sufficient 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.

Standards: To pass the watershed protection criterion for LIHI certification, the applicant shall demonstrate compliance with one of the alternative standards identified in the Low Impact Hydropower Certification Handbook issued March 7, 2016.

Assessment of Criterion Passage

Of the following possible alternative Standards, the Applicant has selected and demonstrated compliance with **Standard E-1, Not Applicable/De Minimis Effect** for ZOEs #1 and #2 and **Standard E-2, Agency Recommendations** for ZOE #3, to pass the Shoreline and Watershed Protection criterion. These standards require:

> ***"STANDARD E-1. Not Applicable/De Minimis Effect:*** There are no lands associated with the facility under ownership and control of the applicant that have significant ecological value for protecting water quality, aesthetics, or low-impact recreation, and there has been no Shoreline Management Plan (SMP) or similar protection required at the facility; or the facility has no direct or indirect project-related land ownership, excluding lands used for power generation and transmission, flowage rights and required developed recreational amenities.
>
> ***STANDARD E-2. Agency Recommendations:*** The facility is in compliance with all government agency recommendations in a license or certificate, such as an approved shoreline management plan or equivalent regarding protection, mitigation or enhancement of shoreline surrounding the project."

The Mallison Falls Dam Project boundary contains 36 acres, including the eight-acre impoundment. Based on review of Exhibit G-1, which shows the Project Boundary, most of the rest of the remaining acreage surrounds the impoundment rather than paralleling the downstream reaches or the power canal Therefore, selection of Standard E-2 is only applicable to the impoundment (ZOE #3).

There is no requirement for a Shoreline Management Plan in the FERC license, although the possibility of requiring one was considered during re-licensing. The Applicant identified compliance with the Operation and Flow Monitoring Plan (impoundment dewatering and re-fill provisions to minimize erosion) as one factor demonstrating shoreline and watershed protection. Shoreline management and protection is also afforded through the provisions of License Article 412(a) which addresses responsibilities of the licensee to authorize certain uses and occupancy of Project lands and waters, provided specified review of potential impacts to the land/water are made. Review of FERC's eLibrary and consultation with the Applicant has confirmed no such conveyances have been made. The application also noted that shoreline protection is provided by the municipally-enforced Mandatory Shoreland Zoning Act, which includes all lands within 250 feet of the normal high-water line of any river or great pond, upland edge of defined freshwater wetlands, and lands within 75 feet of the high-water line of certain streams.

S.D. Warren also demonstrated that they have made necessary changes to help minimize the potential release of dielectric fluid from a transformer on the Project lands, identified as a deficiency in the 2013 FERC inspection report. The deficiency was identified in July 2013, and containment installed by October 2013.

The Project Passes Criterion E – Shoreline and Watershed Protection

F. THREATENED AND ENDANGERED SPECIES PROTECTION

Goal: The Facility does not negatively impact listed species.

Standards: Facilities shall not have caused or contributed in a demonstrable way to the extirpation of a listed species. However, a facility that is making significant efforts to reintroduce an extirpated species may pass this criterion. To pass the Threatened and Endangered Species criterion compliance with at least one of the alternative standards identified in the Low Impact Hydropower Certification Handbook issued March 7, 2016 must be demonstrated.

Assessment of Criterion Passage

The Applicant has selected and demonstrated conditional compliance with **Standard F-1, Not Applicable / De Minimis Effect** to pass the Threatened and Endangered Species Protection criterion for all three ZOEs. This standard requires:

> ***"STANDARD F-1. Not Applicable/De Minimis Effect***: There are no listed species present in the facility area or downstream reach, and the facility was not responsible for the extirpation of the listed species if they were previously there;

Follow-up information provided by the Applicant indicates that past field studies, as well as review with state agencies, indicates that there are no specific records of federal or state, endangered or threatened plant or animal species as occurring at the Mallison Falls Project. However, several protected species (one is also federally protected) may potentially occur, based on state records showing their presence "in the vicinity" of the site. (See Appendix D for communications from John Perry of MDIFW). These species are:

- Northern long-eared bat (Federally and State Endangered)
- Eastern small-footed bat (State Threatened)
- Little brown bat (State Endangered)
- Brook floater (State Threatened)
- Eastern box turtle (State Endangered)
- Least bittern (State Endangered)
- Spotted turtle (State Threatened)
- Upland sandpiper (State Threatened)

Data from Maine Natural Areas Program on presence of rare or unique botanical features (which include the habitat of rare, threatened, or endangered plant species and unique or exemplary natural Communities) found no such features at the Mallison Falls Project. This letter is also in Appendix D, although LIHI has elected to not post more detailed information for other sites on the website.

Assessment by the Applicant's consultant, based on agency consultation and research, indicated that impacts to the animal species that may occur onsite are not expected from routine operational activities. The following are the types of activities that may cause impacts should these species be onsite:

- Removal of large trees that may provide roosting habitat for the bats;
- Exposure/de-watering of the Brook Floater mussel during significant, prolonged impoundment drawdowns;
- Loss of or fragmentation of habitat due to development for the Least Bittern, Upland Sandpiper and Spotted Turtle
- Direct taking of Box Turtles for pets.

S.D. Warren has indicated that none of these activities are planned at this site, and that they have no ability to prevent someone from taking Box Turtles in the public recreational areas. To help ensure that such species, if they are onsite, are not affected by future activities, a condition has been recommended to confirm satisfaction of this criterion.

The Project Conditionally Passes Criterion F – Threatened and Endangered Species Protection

F. CULTURAL AND HISTORIC RESOURCE PROTECTION

Goal: The Facility does not inappropriately 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.

Standards: To pass the Cultural and Historic Resource criterion compliance with one or more of the alternative standards identified in the Low Impact Hydropower Certification Handbook issued March 7, 2016 must be demonstrated.

Assessment of Criterion Passage

The Applicant has selected and demonstrated compliance with **Standard G-2, Approved Plan** to pass the Cultural and Historic Protection criterion for all three ZOEs. This standard requires:

> ***"STANDARD G-2. Approved Plan:*** The facility is in compliance with approved state, provincial, federal, and recognized tribal plans for protection, enhancement, or mitigation of impacts to cultural or historic resources affected by the facility."

License Article 411 required implementation of a Programmatic Agreement (PA), which includes a requirement for a Historic Properties Management Plan (HPMP), for the purpose of managing historic properties within the Project's Area of Potential Effect (APE). The Programmatic Agreement was executed on March 16, 2004, and the HPMP was approved by FERC on August 8, 2005.

There is one historic site located within the Mallison Falls Project area; the Cumberland and Oxford Canal. The Mallison Falls Project structures are not eligible for the National Register; however, the Project in its entirety is subject to the requirements of the PA and the HPMP. Pursuant to §II.C of the PA, S.D. Warren must file a report annually, on the anniversary of licensing, with SHPO and the Penobscot Nation detailing activities conducted under the HPMP throughout the

year. Under the HPMP, a report is due by January 31 of each year. The most recent report was filed on January 26, 2017. It appears all cultural and historic protection requirements are being fulfilled.

The Project Passes Criterion G - Cultural and Historic Resource Protection

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.

Standards: To pass the recreation criterion, compliance with at least one of the alternative standards identified in the Low Impact Hydropower Certification Handbook issued March 7, 2016 must be demonstrated. In all cases, it must be demonstrated that flow-related recreational impacts are mitigated to a reasonable extent in all zones where there is flow-related recreation. Where there is recognized, flow-related recreational use, the facility shall provide the public with relevant and up-to-date information on reservoir levels and river flows, preferably real-time updates. It is understood that recreational activities must be consistent with the assurance of reasonable safety of employees and the public, and with critical infrastructure protection dictated by state or federal authorities.

Assessment of Criterion Passage

The Applicant has selected and demonstrated compliance with **Standard H-2, Agency Recommendations** to pass the Recreational Resources criterion for all ZOEs as at least one recreational feature is in each ZOE. This standard requires:

> ***"STANDARD H-2. Agency Recommendations***: If there are comprehensive resource agency recommendations for recreational access or accommodation (including recreational flow releases) on record, or there is an enforceable recreation plan in place, the Facility demonstrates that it is in compliance with those."

FERC License Article 409 and Water Quality Certificate Condition #7 require the development of a Recreational Facility Enhancement Plan (RFEP). The requirements for the RFEP are generally the same, with only minor differences. Collectively, the requirements include:

- A formal canoe portage trail, with signage, located on the Gorham shoreline;
- Signage for formal parking at existing car-top boat access downstream of the dam;
- Car-top boat access upstream of the dam at the canoe portage take-out location, and parking at the corner of Mallison Road and Canal Street with signage;
- Car-top boat launch and take-out next to the bridge abutment and roadside pull-out;
- Walk-in angler access to the bypass reach; and
- A provision to mechanically remove vegetation.

The RFEP was approved by FERC on February 16, 2006. Additionally, Article 410 of the FERC License requires that S.D. Warren develop and file a Recreation Use Monitoring Plan to determine

the adequacy of recreational features installed at the Project. The Recreation Use Monitoring Plan was developed in consultation with Maine Department of Conservation (MDOC), MEDEP, MDIFW, MDMR, and USFWS. The Recreation Use Monitoring Plan was filed with FERC on August 27, 2013, supplemented on December 20, 2013, and modified and approved by FERC on March 11, 2014.

The recreational facilities were initially required to be installed no later than 2006. However, inability to negotiate an agreement with a private landowner, and a resulting change in plans for angler access, resulted in requests for and approval of two deadline delays. Additional concerns over possible public safety and possible liability concerns on the proposed angler access over the power canal resulted in a further delay. However, all recreation facilities at the Project were completed in November 2012. The most recent Environmental Inspection conducted by FERC, on July 30, 2013 found that all recreational facilities are in compliance with the approved plans.

The Project Passes Criterion H – Recreational Resources

IX. GENERAL CONCLUSIONS AND REVIEWER RECOMMENDATION

Based on my review of information submitted by the Applicant, I believe that this Project meets the requirements of a Low Impact facility and should be certified for a five-year period assuming the following conditions are established:

- *The Owner shall provide LIHI with a copy of the 2018 effectiveness study of the upstream eel passage, along with agency comments issued based on the results of this study. Such information will help determine if in fact safe and effective upstream eel passage is being provided. The Owner shall also provide LIHI an annual update on the status of the effectiveness testing of downstream passage of eels. This update shall be reported annually to LIHI as part of the annual compliance letter.*

- *The Owner shall provide LIHI an update on the status of upstream and downstream anadromous fish passage plans at the Project, including whether or not the Settlement Agreement (SA) for the Saccarappa Project has been formally approved by FERC, and any amendments made to the fish passage requirements within the WQC and FERC license as a result of SA adoption. This update shall be reported annually to LIHI as part of the annual compliance letter.*

- *The Owner shall proactively contact the MIF&W and USFWS a minimum of 60 days prior to any construction activities affecting lands not already developed or structures/tree removal that may provide roosting habitat for listed bat species, to determine if any special measures are needed to ensure no or minimal impact occurs to state and/or federally listed protected species identified as possibly occurring at the site. The MIF&W shall also be contacted 60 days prior to any planned drawdown of the impoundment that would expose a significant portion of the river bottom, to avoid impacts to the Brook Floater. The Owner shall work with the MIF&W and USFWS to implement appropriate measures should they be needed. The Owner shall advise LIHI of any such events, including the results of any activities conducted to minimize such impacts. Such notification shall be provided as part of the annual compliance statement to LIHI.*

THE MALLISON FALLS PROJECT CONDITIONALLY MEETS THE LIHI CRITERIA FOR CERTIFICATION AS A LOW IMPACT FACILITY

Appendix A

Figures and Photographs

Fig. 1 – Dams located on the Presumpscot River



Fig. 2 – Aerial of Project and Key Features



Exhibit #1 – Photographs of Project Features



Powerhouse



Spillway and Bypass



Canal with pedestrian bridge providing access to the bypass reach



Upstream eel passage

Exhibit #2 - Photographs of Zone of Effect No. 1 – Project Tailwater







Exhibit #3 – Photograph of Zone of Effect No. 2 – Bypass Reach



Exhibit #4 – Photographs of Zone of Effect No. 3 - Impoundment





Appendix B

Summary of Filings Relative to Fish Passage at the Sappi Projects Relative to the Sacarrapa Project

(taken from Sappi's Anadromous Fish Passage 2016 Annual Report)

- In its July 29, 2016 report, Warren reported on activities related to anadromous fish passage restoration at the Saccarappa Project, P-2897, the first federally licensed project above head of tide on the Presumpscot River. Those activities included a December 31, 2013 license surrender filing with the Commission, a corresponding application with the Maine Department of Environmental Protection ("MDEP"), and on February 28, 2014, a Section 404 permit application for construction activities (dam removal), with the Army Corps of Engineers ("ACOE"). Subsequently, on March 28, 2014, Warren filed an application to amend the fishway prescription in the license for the Saccarappa Project, and a motion to stay its December 31, 2013 Surrender Application, as well as a corresponding application with the MDEP to amend the WQC.
- The March 28, 2014 filings were based on a March 14, 2014 agreement ("Agreement") supported by Warren, the United States Department of the Interior ("USDOI"), the United States Fish and Wildlife Service ("USFWS"), the Maine Department of Inland Fisheries and Wildlife ("MDIFW"), the Maine Department of Marine Resources ("MDMR"), the City of Westbrook ("Westbrook"), Friends of the Presumpscot River ("FOPR"), and the Conservation law Foundation ("CLF"), collectively the ("Parties"), that sought to extend the Saccarappa fish passage deadline to May 2017, to allow the parties time to evaluate additional passage design alternatives.
- On June 4, 2014, the MDEP issued a revised WQC extending by two years the timeline for constructing anadromous passage facilities at Saccarappa, to May 1, 2017. On July 30, 2014, the Commission approved Warren's March 28, 2014 amendment application and on September 4, 2014, Warren withdrew the December 31, 2013 surrender application.
- Between September of 2014 and September of 2015, numerous technical meetings were held in which the Parties discussed alternative fish passage methods for the Project.
- On September 21, 2015, USFWS issued written comments on two proposed designs, making preliminary recommendations subject to further design development and review.
- On September 22, 2015, the Parties held a technical meeting at Warren's offices to discuss the evaluations of the two proposed alternatives. Based on that meeting and all the input it received during the prior year, on October 12, 2015, Warren circulated its evaluation and selection of the fish passage design for the Project surrender application.
- On December 2, 2015, Warren filed a new Surrender Application with the Commission, which included a schedule for dam removal and modifications, including a double Denil fishway at the lower falls and a nature like passage at the upper falls western channel to provide fish passage by May 1, 2017. Between Warren's December 2, 2015 filing and the

Commission's "Notice of Application" on March 3, 2016, the Commission received numerous comments on Warren's new Surrender Application.

- Subsequently, on March 7, 2016, Warren filed a Multi-Party request to extend the comment period on the Surrender Application to July 1, 2016, to allow time for Warren and the other Parties to explore whether they could resolve their differences in approach to fish passage at the Saccarappa site and other terms and conditions of a license surrender, and thereafter present to the Commission any agreement that may be achieved, for Commission review. On March 8, 2016, CLF, FOPR, USFWS, and DMR submitted a letter to FERC supporting the request to extend the comment deadline until July 1, 2016. On March 17, 2016, FERC issued an order extending until July 1, 2016 the deadline for filing comments on the pending surrender application.
- On March 22, 2016, Warren filed with the Commission an application for amendment for Project Licenses P-2897, P-2932, P-2941, P-2931, and P-2942 to incorporate a revised Section 18 Prescription and a revised Water Quality Certification, to extend the deadline for upstream passage of anadromous fish until May 2018. Warren's amendment application, supported by the Parties, was to allow time to negotiate a fish passage agreement. On March 23, 2016, CLF, FOPR, USFWS, and DMR submitted a letter to FERC supporting the application to extend the fish passage deadline.
- On June 2, 2016, Warren submitted a letter to FERC requesting further extension of the comment deadline, to October 1, 2016, to allow Warren, USFWS, and DMR time to finalize settlement documents. The letter noted that Warren, USFWS, and DMR "have reached an agreement in principle to resolve their differences in approach to fish passage at the Saccarappa site and other terms and conditions of a license surrender." On the same day, USFWS submitted a letter to FERC in support of the extension. On June 8, 2016, DMR submitted a letter to FERC joining in the extension request.
- On June 15, 2016, FERC issued an order extending until October 1, 2016, the deadline for filing comments on the pending surrender application, to allow Warren, USFWS, and DMR to finalize settlement documents. On June 17, 2016, FERC issued an order granting Warren's March 22, 2016 amendment application, extending until May 2018, the deadline for fish passage at Saccarappa.
- Subsequent to multiple meetings between the Parties, on September 23, 2016, the USFWS filed a request with the Commission to extend the comment period on Warren's surrender application to December 15, 2016, such that the parties could continue attempts to reach a comprehensive settlement agreement (the "Settlement Agreement"). The Commission granted this extension request.
- On November 15, 2016 Warren filed with FERC and MDEP a Settlement Agreement negotiated by the Parties that provides for an additional year to engage an engineering consultant to prepare final design plans for an agreed-upon two-channel fish passage system, and then to engage a construction firm to construct that passage system. The USFWS filed with the Commission an extension request amending the Section 18 fish passage requirements for the Saccarappa Project to May 2019.
- On December 15, 2016, Warren held a Public Information Meeting in Westbrook, Maine to inform the public about the Minor Revision Application filed with the MDEP (to extend

the fish passage deadline to May 2019) and the Settlement Agreement negotiated between the Parties.

- On December 27, 2016 MDEP issued Order L-19717-33-E-N revising WQC Condition 5A, extending the operational date for upstream anadromous fish passage to six years (May 2019) after the date passage is available at Cumberland Mills.
- On January 18, 2017, the Commission issued a notice accepting Warren's application with respect to upstream anadromous fish passage at the Project, and including a solicitation for comments and motions to intervene.
- On February 14, 2017, the Commission amended the Project License, incorporating the revised fishway prescription and WQC Conditions. Subsequently, on February 17, 2017, Warren withdrew its December 2, 2015 surrender application for the Project, pursuant to the terms of the Settlement Agreement.

Appendix C

Documents Associated with Comments on the Application

clf
conservation law foundation

For a thriving New England

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October 31, 2017

Low Impact Hydropower Institute
329 Massachusetts Ave, Suite 2
Lexington, MA 02420

RE: Presumpscot River, Maine: applications for certification by Sappi North America for Eel Weir, Dundee, Gambo, Mallison Falls and Little Falls Projects

Dear LIHI,

On behalf of the Conservation Law Foundation (CLF) and Friends of the Presumpscot River (FOPR), two NGOs with long and extensive involvement with and knowledge of hydropower and its effects on the Presumpscot River in Maine, we write to offer the following comments on Sappi's applications for certification of its five Presumpscot River hydropower projects. For almost two decades, and in partnership with American Rivers, CLF and FOPR have been leading the effort to restore numerous species of anadromous fish species to the Presumpscot (alewife, American shad, Atlantic salmon, blueback herring and more) – species which once spawned and reared in the Presumpscot in prodigious quantities but were decimated, and for some species extirpated, as a result of the multitude of impassable dams inhabiting the 25-mile length of this river.

I. Our background with this river and these dams.

Over the past eighteen years, CLF, FOPR and/or American Rivers have, in close collaboration with state and federal natural resource agencies:

- Succeeded in causing the lowermost dam on the river (Smelt Hill) to be removed;
- Succeeded in having the State of Maine require Sappi to install a state-of-the-art fishway on the now-lowermost, non-hydropower dam (Cumberland Mills);
- For the next five dams going up the river (Saccarappa, Mallison Falls, Little Falls, Gambo and Dundee), succeeded in having the State of Maine and FERC order Sappi to install fishways (2003 licensing decisions), with installation to occur on a progressive implementation schedule;
- Successfully defended those state and federal fishway orders against Sappi's appeals of them before the Maine Supreme Court, the D.C. Court of Appeals, and the U.S. Supreme Court;
- Successfully reached a settlement agreement with Sappi and the natural resource agencies in 2016 regarding dam removal and channel reconstruction at the Saccarappa site, as well

as the schedule for fish passage installation over the next decades at the Mallison Falls, Little Falls, Gambo and Dundee dams.

In sum, CLF and FOPR know this river – its fishery history, its ecology, its regulatory past, its restoration potential and the challenges to restoration that it faces from dams – very, very well.

II. Are the dams for which Sappi seeks certification currently having a low ecological impact?

CLF and FOPR do not dispute that, based on what they know, Sappi is currently in full compliance with the requirements of the USFWS's 2002 fishway prescription and Maine DEP's 2003 water quality certification. But because installation of the fishways required under these licensing orders has not occurred, will not begin to occur for at least a decade, and has not been determined, once installed, to be effective, there is -- bluntly stated -- no credible scientific or ecological argument that the facilities for which Sappi seeks certification are:

(1) *currently* having a "low impact" on the sea-run anadromous fisheries of the Presumpscot;
(2) will have a "low impact" *for at least a decade from now*, when fish passage *might* be triggered and installed at the lowermost dam, Mallison Falls; and
(3) when finally installed at each dam, *actually able to provide safe, timely and effective passage.*

Thus, certifying these five facilities *right now* as having a "low impact" to migrating anadromous fish *while nonetheless lacking any fish passage* would be patently false. Whether these five facilities eventually prove to be of low ecological impact to migrating anadromous fish is years away from even being tested, let alone determined. LIHI certifying them now as "low impact" to anadromous species, relying on your Criterion C-2 to do so, would at best be a made-up story. At worst, it would be a gross misrepresentation to the public.

To talk specifics: in 2021, under the recently negotiated Saccarappa agreement, the removal of the spillways at Saccarappa will be completed and sea-run fish (principally alewife, American shad and blueback herring) should, for the first time in well over 100 years, have free-swim access to the base of the Mallison Falls dam. At this point, these fish will encounter an impassable wall at Mallison Falls that will completely stop their upriver migration; impassable until either 18,020 of their blueback herring brothers/sisters or 2,960 of their American shad brothers/sisters have similarly passed the Saccarappa site (during spring migration), at which point Sappi will be legally required to build a fishway at Mallison Falls. *Until then constructed*, and in the words of LIHI's Criterion C "goal*," there will be no safe, timely and effective upstream fish passage at Mallison Falls, let alone at the dams further upstream.* Achieving these blueback or shad numbers to "trigger" fish passage construction at Mallison Falls is almost certainly at least 10 years in the future, and the fish passage that will then be installed will be untested in its effectiveness for several years thereafter. Until then, Mallison Falls is having, and will continue to have, an absolute, singular and profoundly negative impact on the ability of anadromous fish to migrate upstream, as are the other four facilities for which Sappi seeks certification.

It should be noted that the fact of the very adverse impact that Sappi's dams had on decimating the migratory fishery is not historically disputed (except, possibly, by Sappi) The state and federal natural resource agencies are in complete accord on this history, and have written about it in numerous places (*e.g.,* the 2003 water quality certification issued by the State of Maine and relied upon by Sappi as part of this LIHI application, as well as in discussion contained in the documents submitted as part of these comments).

III. Have LIHI's Eligibility Requirements and Certification Criteria Been Met?

A. The Mallison Falls and Little Falls Projects Are Not Eligible for LIHI Certification

Section 2.2 of LIHI's eligibility requirements state that "[t]he following types of hydropower facilities "are not currently eligible for LIHI certification":

> Facilities associated with dams that have been recommended for removal by a resource agency. If a natural resource agency has concluded that a dam should be removed and has documented their recommendation in an official, publically [sic] available report or proceeding, the hydroelectric facilities associated with that dam are not eligible for LIHI certification and owners of those facilities should not apply (see Section 2.1.1 for possible exceptions)

LIHI should have been informed by Sappi that in the case of the Mallison Falls and Little Falls facilities, the Maine Department of Marine Resources, the Maine Atlantic Salmon Commission, and the US Department of the Interior all filed official, publicly available reports during the FERC licensing process urging removal of these two dams, as well as the downriver Saccarappa dam.[1] As acknowledged by FERC in its June 2002 Final Environmental Impact Statement:

> …the FWS, the state of Maine resource agencies, American Rivers/FOPR, MCASF/Friends of Sebago Lake, and TU all filed comments and recommended license terms and conditions that state that the Commission should order the removal of the three minor project dams, or at a minimum order the installation of fish passage facilities for anadromous species at all five dams. (p. 116)

On January 31, 2001, the Maine Atlantic Salmon Commission (MASC) stated the following to FERC in writing:

> Project decommissioning and dam removal would certainly enhance the prospects and conditions for diadromous fish restoration and the MASC encourages FERC to continue this analysis as part of its environmental assessment as a reasonable alternative benefiting all migratory fish species, especially in light of the fact that some Atlantic salmon periodically are observed in the low Presumpscot River. (p.3)

On November 27, 2001, the same MASC, responding in a highly critical way to FERC's Draft Environmental Impact Statement (which did not recommend removal of the Mallison Falls,

[1] The documents cited in these comments are attached hereto.

Little Falls and Saccarappa dams), stated that it was "genuinely surprised that the FERC staff neglected to take a holistic approach in its analysis of the effects of the Presumpscot River projects" (p.1), and proceeded in the remainder of its comments to set forth the case for Atlantic salmon restoration through dam removal.

On November 28, 2001, the Maine Department of Marine Resources wrote a similarly critical letter to FERC, expressing how "disappointed" it was that FERC's draft EIS did not adequately analyze the benefits of removing Mallison Falls, Little Falls and Saccarappa (p.2), discussing in some depth the cumulative impact of the inefficiency from relying on upstream fishways and the downstream mortality caused by leaving the three dams in place, noting how FERC's own analysis demonstrates that "removal of Mallison Falls and Little Falls dams would increase the amount of run habitat above Saccarappa." (p.3)

On December 3, 2001, also in response to the Draft EIS, the US Department of the Interior wrote to FERC:

> While the Commission has included the alternative of decommissioning and removal of one or more of the five projects in its DEIS…the analysis of environmental benefits falls far short of the equal consideration standard required under the Federal Power Act… Had a full accounting of all environmental benefits and costs associated with mitigation of impacts (fish passage and instream flows) been conducted by the Commission as required under NEPA, the analysis would clearly support the finding that decommissioning and removal of one or more of the dams is the alternative that best meets the public interest. (p.2)

In sum, the record on the agencies' positions on dam removal of Mallison Falls and Little Falls is a very strong preference for dam removal, but having to settle for fishways. These two dams are not eligible for LIHI certification given this record.

B. Certification of the Gambo, Dundee, and Eel Weir Projects should wait until they are actually causing a low impact to migrating fish.

If LIHI is interpreting its section 3.2.3 Criterion C – Upstream Fish Passage to mean that a facility is "low impact" to upstream migrating fish so long as an applicant for certification is subject to and in compliance with a regulatory order which states that at some unknown future date the owner of this complete barrier to upstream migration will be required to install an upstream fishway, even though the present, on-the-ground reality is that,

(1) the facility currently completely blocks upstream fish migration,

(2) it will continue to do for decades from now – many cycles of certification and re-certification -- before even the lowermost dam has installed upstream fish passage to remove this complete blockage, and

(3) even then, there is no proof that, once installed (decades from now) this fish passage will actually prove to be safe, timely and effective,

then indeed Sappi's Gambo, Dundee and Eel Weir facilities are certifiable under LIHI's peculiar and singular view of ecological "low impact."

CLF and FOPR suggest that such a designation would be absurd. A far more defensible approach for LIHI to take would be for LIHI to encourage Sappi to apply for low-impact certification for the Gambo, Dundee and Eel Weir facilities *once it has actually installed fish passage*, and is then able to demonstrate that the installed fish passage is providing safe, timely and effective passage of migrating native anadromous species to occur. At such a time, CLF and FOPR will be the strongest supporters of low-impact certification for the Gambo, Dundee and Eel Weir facilities.

Thank you for your attention to our comments.

Sincerely,



Sean Mahoney, Esq.
Executive Vice President
Conservation Law Foundation



Ronald A. Kreisman, Esq.
Counsel
Friends of the Presumpscot River

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November 17, 2017

Low Impact Hydropower Institute
329 Massachusetts Ave
Suite 2
Lexington, MA 02420

RE: Response to Comments Submitted by CLF and FOPR

Dear Low Impact Hydropower Institute,

S.D. Warren Company d/b/a Sappi North America (Sappi) is hereby submitting this response to public comments submitted on our LIHI application by the Conservation Law Foundation (CLF) and Friends of the Presumpscot River (FOPR). These organizations made three general points that we would like to address:

Argument #1 – The fish passage facilities have not yet been installed, so the Sappi hydropower facilities are currently having a detrimental impact on fish passage.

CLF and FOPR's primary argument is that the facility cannot have a low ecological impact because the installation of fish passage has not yet occurred. However, this narrow interpretation does not reflect an accurate understanding of the LIHI handbook, criteria, or process.

As stated in the LIHI 2nd Edition Handbook, one of the primary purposes of LIHI is to "provide positive recognition and economic reinforcement to hydropower owners who take steps to improve their facilities and invest in the local environment." Many hydroelectric facilities have received LIHI certification because they have demonstrated firm commitments and are on a path toward reducing environmental impacts through capital investments and operational improvements. In fact, LIHI often provides the initial incentive for facilities to undertake those improvements in the first place, whether or not they are required by a regulatory proceeding. This is a critical role to fill in the hydropower industry, and LIHI certification provides that incentive to reduce the environmental impacts of hydropower generation, in accordance with LIHI's mission. Requiring each facility to pass certification only after the facility has successfully installed and demonstrated each environmental improvement to the satisfaction of every party involved would be onerous, and ignores the timelines that are necessary to license improvements, make capital budgeting decisions, and install equipment.

This precedent has been set in many, if not most, LIHI-certified facilities. As just a few examples (there are many more):

- LIHI #66, Orono, and LIHI #67, Stillwater: "This certification review is based on the presumption that the final transfer of the Great Works, Veazie and Howland Projects will occur, and the fish passage protection provisions associated with that option of the Settlement Agreement will be implemented. Should the transfer not take place, and if LIHI certification is still desired, then reanalysis of the Orono Project against LIHI certification criteria, incorporating these alternative fish passage provisions must be requested / performed."

- LIHI Certificate #11, Pawtucket: "The owner of the Pawtucket hydropower facility shall continue to participate in efforts to restore fish passage in the lower Blackstone River, as documented in Memoranda of Agreement of 2007 (amended 2009) and 2012 with RIDEM. The owner shall keep LIHI fully informed of all progress, delays, and changes in these efforts and agreements. LIHI certification is contingent on the owner continuing to play a strongly supportive and proactive role in achieving the goals of the Blackstone River Fish Passage Restoration Project, subject to cooperation, material progress, and the appropriation of project funding from state and federal agencies."

- LIHI Certificate #12, Tallassee Shoals: "There are active and evolving efforts to restore migratory fish populations in the Oconee River basin that may eventually interact with the facility at some point in the future. Therefore, the owner shall monitor the progress of these efforts on a regular and continuing basis, and participate in them when appropriate.

- LIHI Certificate #89, Holyoke Hydro: "If HG&E does not meet any of the downstream fish passage design and implementation deadlines that fall within the 5-year term of certification, LIHI will suspend certification unless HG&E demonstrates to LIHI that the resource agencies believe good cause exists for the schedule delay. Any subsequent re-certifications of the Facility will be dependent on HG&E's passage facilities meeting effectiveness targets set by the agencies."

- LIHI #110, Stillwater B: "The facility owner shall consult with the involved fisheries resource agencies and the Penobscot Indian Nation (PIN) to confirm that the designs that have been implemented at the new downstream fish and eel passages are consistent with the Settlement Agreement. An annual status report on such consultation, plans and results from effectiveness testing of fishways, and final acceptance by agencies and PIN shall be sent to LIHI along with the owner's annual compliance letter."

- LIHI #128, North Gorham: "Within 90 days of LIHI certification, the Owner shall proactively initiate discussions with MDMR and USFWS regarding future construction of an upstream fish passage facility for American eel at the site and implementation of appropriate measures to facilitate safe downstream passage for American eel. The siting and design work on the upstream passage structures shall be initiated within the first two years of LIHI certification; construction and operation shall be completed as soon as practicable, but no later than the end of the five-year LIHI certification period."

In Sappi's case, there is a clear timetable and biological triggers in place to install fish passage. This timeline has been agreed to in a Settlement Agreement (S.A.), between Sappi, U.S. Fish and Wildlife Service, Maine Department of Marine Resources, Conservation Law Foundation, Friends of the Presumpscot River, and the City of Westbrook. Sappi will be making significant capital investments to remove Saccarappa Dam and make site alterations to improve fish passage, in excess of $5 million when design cost are included. All parties to the S.A. concurred with this approach, as evidenced in the S.A. and letters supporting LIHI certification from the various resource agencies. According to the Fish and Wildlife Service (letter dated May 31, 2017):

"Warren, the Service, and other Stakeholders have worked tirelessly to negotiate the terms of a Settlement Agreement (Agreement) affecting fish passage at four of the Projects noted herein. We are now implementing this Agreement. The Agreement addresses issues of concern to the Stakeholders, gives Warren some certainty regarding the requirements for decommissioning and removal of the Saccarappa Project, and extends the time when Warren must comply with fish passage requirements at the other four Projects. S.D. Warren Company has been very cooperative with the Service regarding issues and concerns relating to these projects and we support their application for certification."

Argument #2 – Dam removal recommendation eliminates eligibility.

CLF and FOPR contend that Sappi's projects are ineligible because of various comments made during re-licensing recommending that dam removal be considered as an alternative to continued operations of the project. This comment is faulty on two grounds:

1. ***Dam removal was recommended <u>to be considered as an alternative</u> in FERC's NEPA process – this does not qualify as a recommendation for removal:*** Several agencies requested that FERC consider dam removal as an *alternative*, and removal was never a final recommendation from any resource agency, which instead opted for fish passage facilities. The language from the FEIS reads: "Interior, the state of Maine resource agencies, American Rivers/FOPR, MCASF/Friends of Sebago Lake, and TU all filed comments and recommended that the Commission consider removal of three dams as an alternative to licensing" (page 55). At the time of re-licensing, these facilities did not have any passage installed or plans to do so. Fish passage installation was also recommended as an alternative (in addition to dam removal). The final recommendations from

the agencies (USFWS, MDIFW, MDEP, etc.) almost exclusively focused on installing upstream and downstream passage. The FEIS offers a summary of the final recommendations by all agencies, on pages 21-25. For example:

a. "The MDMR is the lead state agency in the restoration and management of diadromous (anadromous and catadromous) species of fish other than sea-run Atlantic salmon. ***The MDMR recommends*** installation of upstream and downstream fish passage facilities for American shad and blueback herring at the lower four projects, including screens on the trashracks and separate upstream and downstream measures (shut downs) for eels at each of the five projects."
b. "The Maine Atlantic Salmon Commission (MASC) is responsible for the restoration of Atlantic salmon throughout its historical range in the state of Maine. However, the recent events that prompted the request for dam removal (see section 2.2.2) also have caused the MASC to re-evaluate its priorities for restoration of Atlantic salmon in the Presumpscot River[1]. ***The MASC recommends*** a reopener clause to address the need for upstream and downstream passage facilities for diadromous fish once the Cumberland Mills dam has fish passage facilities; consultation with S.D. Warren every 3 years to develop a schedule for installation of fish passage facilities; and a study to determine appropriate flows to support Atlantic salmon, after MASC has completed its assessment of the river habitat."
c. **"*Interior also recommends*** installing upstream and downstream fish passage facilities for American shad and blueback herring, and separate measures for eel passage."
d. "***The FWS recommends*** ROR operation, year-round minimum flows, a headpond elevation and flow monitoring plan, the development of a detailed Shoreline Management Plan (SMP) for licensee-owned lands that are needed to project-related purposes within 500 feet of the high water elevation, and recreational use monitoring every 6 years."

LIHI requires that resource agencies conclusively recommend a dam for removal, not that dam removal is considered as an alternative or that dam removal was considered as an option at some point in the re-licensing proceeding. Recommendations by agencies frequently change during the course of the re-licensing, and did in this case as well, to favor installation of passage facilities. For example, the Shoreline Management Plan originally recommended by USFWS is now a Land Use Recreation Management Plan. The NGOs that commented did recommend removal, but this is not relevant for LIHI criteria, which requires the recommendation to come from resource agencies.

[1] This recommendation was made by NGOs, not a resource agency. See page 21: "Several NGO's, including the Friends of the Presumpscot River (FOPR), Friends of Sebago Lake, and the Maine Council of the Atlantic Salmon Federation (MCASF), as well as numerous individuals are advocating that the Commission order the removal of the Little Falls, Mallison Falls, and Saccarappa dams." These do not qualify under LIHI standards because, under those standards, recommendations must come from the resource agencies.

2. ***The Agencies' final recommendations are contained in the Settlement Agreement.*** LIHI's criteria states (pg. 42): "If a single Resource Agency has made multiple recommendations, the most recent recommendation shall apply. This principle also applies when there is a settlement. If a Resource Agency is party to a settlement, or otherwise formally concurs in a settlement, the settlement terms are considered to be the most recent Resource Agency Recommendation for these purposes. If, however, a Resource Agency is not party to a settlement and does not formally concur in the settlement, the most recent recommendation of that Resource Agency, and not the settlement terms, apply for purposes of certification."

   This is a clear example where the qualifying agency recommendations are contained in the S.A. The timeline and biological triggers for installation of passage at each project has been agreed to in the S.A. by Sappi, U.S. Fish and Wildlife Service, Maine Department of Marine Resources, Conservation Law Foundation, Friends of the Presumpscot River, and the City of Westbrook. Each resource agency party to the S.A. were those that recommended FERC consider dam removal as an alternative during the NEPA process in 2003. The S.A. represents years of study, design and consultation into providing fish passage at the Saccarappa Project and goes far beyond the requirements of the Projects' Section 18 Fishway Prescription in the License, or of a typical decommissioning / license surrender order.

Argument #3 – Certification should wait until the project has proven it is having a low impact to fish.

This is a restatement of Argument #1, and our response is above.

In his December 27, 2016 letter to the MDEP supporting a "Minor Revision" to the Projects' Water Quality Certification (attached), Sean Mahoney, writing on behalf of CLF and FOPR, states:

"For more than three years, the parties to the SA negotiated to reach an agreement that would be the best possible result for water quality of the Presumpscot River. The effort required an enormous investment of resources, in terms of time and money, and at the end of the day each of the parties believes that the SA reached will be to the benefit of the Presumpscot River, the communities that share it and the company that uses it to continue its operations."

This statement undercuts CLF's and FOPR's objections here, showing that CLF and FOPR clearly believe the SA will benefit the Presumpscot River by offering the "best possible result for water quality of the Presumpscot River."

If you have any questions concerning this matter, please contact me at 207-856-4083 or by e-mail at Brad.Goulet@SAPPI.com.

Sincerely,

Brad Goulet

Brad Goulet
Hydro Manager/Utilities Engineer

Attachment:
December 27, 2016 CLF letter to MDEP

cc: Peter Drown Cleantech
Matt Manahan P.A.
Briana O'Regan Sappi

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December 27, 2016

Kathy Davis Howatt
Hydropower Coordinator
Maine Department of Environmental Protection
17 State House Station
Augusta, ME 04333

Re: Request for agency review of DEP Application Number: L -19717-33K-M

Dear Ms. Howatt,

I write on behalf of the Conservation Law Foundation ("CLF") and Friends of the Presumpscot River ("FOPR") in response to the S.D. Warren Co.'s ("Warren") application for a minor revision of the water quality certification ("WQC") issued for the Saccarappa Hydropower Project to extend until May 2019 the deadline for operational upstream passage for anadromous fish at the Saccarappa Project ("Application") and in support of that request.

As you know, along with Warren, the Maine Department of Marine Resources ("DMR"), the U.S. Fish & Wildlife Service ("FWS") and the City of Westbrook, Maine, CLF and FOPR are signatories to the November 15, 2016 Settlement Agreement ("SA") that provides for the surrender and removal of the Saccarappa Project, the construction and operation of fish passage facilities at that location and modifications to the fish passage requirements at the four dams upriver from the Saccarappa Project – Mallison Falls, Little Falls, Gambo and Dundee (collectively, the "Presumpscot projects"). Warren's request for an extension until May 2019 is to allow the parties to undertake the obligations set forth in Section 2 of the Settlement Agreement governing the design and construction of a double Denil fishway at the Saccarappa's lower falls and a two-channel nature-like fish passage at the upper falls. Getting the design and construction of fish passage at these two locations as good as possible is critical to the restoration of anadromous fish to the upriver reaches of the Presumpscot River and its tributaries. All of the parties recognize that the Saccarappa site is a highly altered one, and therefore poses difficult challenges for effective fish passage.

Our support of the SA and the Application is shared by the state and federal agencies charged with restoring indigenous anadromous fish to Maine's coastal rivers and watersheds, as made clear in the December 22, 2016 letter to you from Commissioner Keliher. CLF, FOPR, DMR and FWS have been deeply engaged in the effort to restore native species to the Presumpscot on a sustained basis for close to two decades. After contested proceedings with Warren concerning the WQC initially issued to Warren for the Presumpscot projects in 2003,

further contested proceedings surrounding fish passage at the Cumberland Mills dam just below the Saccarappa project in 2009, and opposition to Warren's initial proposal to surrender the Saccarappa project in 2013 and 2015, the parties to the SA have agreed for the first time on a solution to restore native species to their indigenous habitat throughout the Presumpscot watershed And national and state groups who share the goal of restoring native fish to their historic habitat - American Rivers, the Natural Resources Council of Maine, Maine Rivers and Trout Unlimited – have reviewed the SA and agree.

The one group who has indicated its opposition to the SA and the Application is the Friends of Sebago Lake ("FOSL"). The full extent and nature of that opposition was not apparent until you forwarded the comments that FOSL representatives had been sending you but neglected to include the parties to the SA and the FERC docket. Before briefly addressing the merits of what we can piece together as the basis for that opposition, I want to stress that none of the legal or factual claims FOSL makes are relevant to the Department's review and decision on the Application before it. The provisions of the SA that FOSL objects to, principally the proposed extension of the license term for the remaining Presumpscot projects and the proposed removal of the condition in the current license/WQC for the Gambo and Dundee projects (but not subsequent licenses and/or WQCs) that fish passage be installed at these projects if certain numerical triggers of American shad and blueback herring are reached, have nothing to do with the extension requested. None of the terms and conditions of the SA are relevant to the decision on the Application because none of them are before the Department as part of a surrender application or application to modify the terms and conditions of the WQC for the Presumpscot projects. Indeed, none of them may ever be before the DEP if the parties to the SA are unsuccessful in the next few months at agreeing on a design and construction process for fish passage at the Saccarappa site. As such, FOSL's objections to the SA are not ripe and will never be ripe unless and until the terms and conditions of the SA become a part of an actual surrender application. The only question before the Department at this time is whether granting the requested extension has a rational basis and the only answer to that questions is yes – an extension will allow the parties to the SA time to finalize a settlement and avoid long and protracted litigation over effective fish passage at the Saccarappa site. Such an extension is eminently rational and supported by all save FOSL.

Because FOSL's opposition to the Application is not ripe, CLF/FOPR's response to its opposition will be brief. Moreover, our responses will not focus on any of the legal arguments posited by FOSL in its various communications with Department staff (*e.g.*, email from FOSL's Executive Secretary dated November 18, 2016), but rather will focus on providing certain factual information for your administrative record, to correct some of the assertions made by FOSL in order to ensure that in any appeal of the Department's decision the decision maker has a complete and accurate understanding of the facts.

Fishway triggers

FOSL claims (Watts email, December 20, 2016, 11:17 AM et seq.) that a delay in counting fish at Saccarappa until 2024 and delays in fish passage at the Gambo and Dundee projects are too long because the trigger numbers for river herring that would require fish passage at the Presumpscot projects are already about to be met, making the SA unlawful, presumably under an arbitrary and capricious standard. That claim is without merit, for a number of reasons.

First, under the WQC, the trigger numbers are based on returning populations of blueback herring, American shad and salmon. FOSL claims that the trigger number was for "river herring" and not just blueback herring, so that alewives would also be counted. That is simply incorrect, as the plain language of the WQC and the FERC license (including the prescription required by FWS), make clear.[1]

Second, the evidence is strong that the river herring that have passed at the Cumberland Mills dam are largely alewives and not blueback herring, both in results of sampling conducted by Warren on fish that successfully passed at Cumberland Mills and in the fact that most of the fish stocked by DMR in the Presumpscot to date have been alewives, as noted in the December 22, 2016 DMR letter at p.2.

Finally, the delay in counting fish passing at the Saccarappa site until 2024 is rational given that the first significant stocking of blueback herring in the Presumpscot did not take place until 2016 and providing until 2024, meaning two "classes" of returning spawners (every four years) is the minimum period of time that both DMR and FWS believe is at all possible to reach the trigger number for blueback herring.

The Gambo and Dundee projects

FOSL argues that by postponing the fish passage requirement at the Gambo and Dundee projects until the next licensing proceeding, the SA is unlawful because: (1) there is not enough habitat for shad, blueback herring and salmon below the Gambo and Dundee projects to justify postponing fish passage at those two projects; (2) the Mallison and Little Falls trigger dates will be collapsed to the same date as for the Gambo and Dundee trigger dates as there won't be enough habitat in the reaches up to Mallison and Little Falls to justify installing fish passage at these two sites unless there is also fish passage at Gambo; and (3) delays called for in the SA at

[1] FOSL argues that it was a typographical error or a mistake that the WQC and federal prescription used "blueback herring" instead of river herring. While FOPR believes that the historical, biological and riverine conditions all support the distinction that was made between blueback herring and river herring, FOSL's argument is of no merit at this juncture – neither FOSL nor any other party involved in the licensing proceedings for any of the Presumpscot projects have raised that argument before and they are precluded from raising it now.

Gambo and Dundee somehow will result in delays of eel passage at dams upriver of Dundee. Each of these claims are supported by at best selective citations to documents submitted to the Department and/or statements made in the various proceedings concerning the Presumpscot projects going back to 2001.[2] Upon examination, none of them provide a basis for disapproval of the pending Application.

FOSL's claim that the majority of the habitat for shad, blueback herring and Atlantic salmon is above the Gambo project fails for three reasons. First, as noted by the state agency responsible for restoring anadromous fisheries, "effective passage at Saccarappa, together with passage at Mallison and Little Falls, will open up substantial amounts of spawning habitat for shad, blueback herring and Atlantic salmon below Gambo, which is in and of itself significant." December 22, 2016 DMR letter at 2.[3]

Second, FOSL's claim is largely premised on a selective and misleading use of the expert testimony of Professor Michael Dadswell that FOPR and American Rivers submitted in the relicensing proceeding for the Presumpscot projects in 2001. *See* Comments, Recommendations, Terms and Conditions by American Rivers and Friends of the Presumpscot River, Attachment 1, Fisheries Resources: Past, Present and Potential, The Presumpscot River (February 2, 2001 - P-2897) ("Dadswell Report").[4] As the following full quotations from Mr. Dadswell establish, the habitat that would be opened by effective fish passage at the Saccarappa site and at the Mallison and Little Falls projects would be significant and critical to anadromous fish restoration in the Presumpscot:

> General effect of removal of Saccarappa dam: "It is my opinion that removal of the Saccarappa Dam would permit the development of substantial anadromous fish runs in the region of the former impoundment. Atlantic salmon, American shad and blueback herring populations would develop that should support significant sport and commercial fisheries. Alewife are unlikely to benefit significantly from the new habitat created." Dadswell Report at 39.
>
> General effect of removal of Mallison and Little Falls dams: "In my opinion, the removal of the Mallison and Little Falls dams would create a coldwater fisheries of the same quality as the present Eel Weir By-Pass fishery…" Dadswell Report at 41.

[2] As noted in CLF/FOPR's filing today with FERC, in its zeal for what at least its Executive Secretary believes is in the best interest of the Presumpscot, FOSL has not been limited by facts or context in its communications to date regarding the SA or the Application.

[3] While it is not certain, it is highly likely (and acknowledged by Warren) that what will occur at Mallison and Little Falls upon the requirement for fish passage being triggered by the requisite number of blueback herring, American shad or Atlantic salmon will be the removal of those dams.

[4] That document can be found at the FERC library and a link is provided here - https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=9030996.

Impact on Atlantic salmon of removal of Saccarappa dam: "The Saccarappa reach potentially has about 400,000 square meters of juvenile salmon habitat that could produce up to 10,500 smolts year (Elson 1975). Depending on marine survival, restoring Atlantic salmon to the Saccarappa reach could potentially produce a run of 200-500 adults/year to the Presumpscot River. Removal of the hydroelectric generating facilities would eliminate annual turbine mortality on seaward migrating salmon smolts and kelts (spawned adults)." Dadswell Report at 38.

Impact on Atlantic salmon of removal of Mallison and Little Falls dams: "The 2.2 miles of riverine habitat could produce about 4500 salmon smolts and, depending on marine survival these salmon could result in an adult return rate of 100-200 adults (Elson 1975). Removal of the hydroelectric facilities at Mallison and Little Falls would eliminate the turbine mortality on downstream migrant salmon smolts and kelts." Dadswell Report at 42.

Impact on American shad and blueback herring of removal of Saccarappa dam: "The Maine Department of Marine Resources estimates that the Saccarappa reach would produce a shad population of about 11,000 adults/year (Wippelhauser pers. comm). In addition removal of the dam would permit shad access to the Little River…The Maine Department of Marine Resources estimates that the Little River would support a shad spawning population of about 1900 adults/year (Wippelhauser, pers. Comm.) In my opinion their estimates are probably correct." Dadswell Report at 38-39. "There are no estimates available on the potential adult population of river herring that would utilize the former Saccarappa impoundment, however, based on estimates for other waters (Walton 1987) the reach could produce a population of 153,000 adults. Blueback herring would probably be the dominant species in the reach, but there should be some alewife production as well." Dadswell Report at 39.

Impact on American shad and blueback herring of removal of Mallison and Little Falls dams: "If American shad and river herring have access to the Mallison Falls and Little Falls reaches there is a potential for the production of 65,000 adults." Dadswell Report at 42.[5]

In short, the fisheries expert admiringly quoted by FOSL in its comments to DEP and elsewhere agrees with the DMR that the stretch of river between the Saccarappa dam to below the Gambo dam could produce up to 231,000 American shad, blueback herring and alewives per year. For a

[5] Should the impoundments above the Mallison and Little Falls dams remain, i.e., those dams are not, contrary to the expectations of the SA parties, removed, then the habitat would favor alewives as opposed to blueback herring. Dadswell Report at 51-52.

southern Maine coastal river, those are substantial numbers that would significantly benefit the ecosystems of the Presumpscot watershed and Casco Bay into which that watershed empties.

And third, without successful passage at Saccarappa, none of this habitat availability above Saccarappa will/would have occurred and the delays for fish passage at the remaining Presumpscot projects wouldn't be a matter of years but a matter of permanence. Indeed, this is exactly the conclusion that the non-Warren parties to the SA reached based on Warren's initial surrender application filed with FERC in 2013 and 2015, as set forth in the December 22, 2016 DMR letter at 2. Critically, FOSL has not demonstrated why either the 2013 or the 2015 Warren surrender application plans would have been successful and would have triggered Gambo and Dundee any earlier.

FOSL's second argument -- that delays at Gambo and Dundee will inevitably *also* result in the trigger dates for MF and LF fish passage being collapsed back to and becoming the same as the after-2053 fish passage dates for Gambo and Dundee because insignificant amount of habitat will be created with just having fish passage at Mallison and Little Falls -- also must fail. Legally, in order for this to happen FERC and the FWS on the federal end and the DMR and the Department on the state end would have to approve of such a "collapse" and there is no evidence at all that those agencies would even contemplate it, especially in the face of the strong opposition that would be mounted by the very non-Warren parties that are signatories to the SA. Indeed, the very exact and detailed provisions of the SA make it clear that the parties have each contemplated how and when fish passage will occur at those two sites. Factually, the administrative record from the 2003 FERC and DEP licensing proceedings make clear that significant spawning and rearing habitat in and of itself exists between Mallison Falls and Gambo and both the DMR and FWS have always been clear on this, as was Professor Dadswell as set forth above. And FOSL's Executive Secretary also agreed, writing earlier in this year to counsel for FOPR and CLF as follows:

> Hi Ron -- FOSL thinks a conceptual-level exploration from purely small game (saccarappa surrender) to big game, Saccarappa + Mallison/Little and Gambo is timely and might bear fruit (or might not). There are some novel areas of liquidity and flexibility once you add the upstream dams. *FOSL is the only party (NGO or agency) which has a distinct priority for native Atlantic salmon restoration (rather than just shad and herring). Removal of M and LF is critical to salmon since they impound some of the best salmon habitat in the river and the U.S.* We want to keep salmon high up on the ledger, and at least make sure they are not omitted from it. This is in keeping with Atkins (1869) original assessment of the river as supported by Dadswell (2001, using the Esk River in Scotland as a comparative river). (emphasis added)
>
> Thanks,
>
> Doug.

There is simply no support for FOSL's assertion that if the SA results in a surrender application, the requirements for fish passage at the Mallison and Little Falls projects will be anything other than what is set forth in that document consistent with the federal prescription and Maine's WQC.

As to FOSL's last argument regarding American eel passage requirements of dams that are above the Dundee project, FOSL raised that issue with counsel for Warren, FOPR and CLF in an email sent at 3:52 PM on November 18:

> **From:** info@dougwatts.com [mailto:info@dougwatts.com]
> **Sent:** Friday, November 18, 2016 3:52 PM
> **To:** info@dougwatts.com; Matt Manahan; 'Ron Kreisman'
> **Cc:** friendsofsebago@yahoo.com; smahoney@clf.org
> **Subject:** LIHI certification at N. Gorham
>
> Matt, Sean and Ron --
>
> Per Ron K's advice from May 2016, FOSL spent a lot of time this summer and fall with LIHI technical staff in crafting what we hope (!) will be timely upstream and downstream eel passage at the North Gorham Dam, in conjunction with the FOSL/SDW Maine BEP settlement of this summer on provision of upstream passage for eels at Eel Weir and the FERC Nov. 9, 2016 Order approving Warren's plan for downstream eel passage at Eel Weir by August 2017. FOSL has a lot of sweat equity investment in ensuring these agreements/assurances are not negatively affected by issues regarding the final disposition/surrender conditions at Saccarappa. Over and above the plain language issues in the Agreement at Sect. 2.2.3 for Gambo and Dundee, FOSL is very concerned that they could cause SDW or Brookfield or both to cite them as material reasons to back out of these date-certain eel passage agreements. What we don't need is the addition of more regulatory uncertainty in a 1, 2, 5, 10 year time-frame. One of our key concerns is that the Saccarappa Agreement (as set forth) would needlessly compound the existing regulatory uncertainty at N. Gorham and Eel Weir which we now are getting close to unravelling.
>
> Thanks.
> Doug.

Counsel for Warren responded less than an hour later:

> **From:** Matt Manahan [mailto:mmanahan@pierceatwood.com]
> **Sent:** Friday, November 18, 2016 4:49 PM
> **To:** 'info@dougwatts.com' <info@dougwatts.com>; 'Ron Kreisman' <ron@kreisman.net>
> **Cc:** friendsofsebago@yahoo.com; smahoney@clf.org
> **Subject:** RE: LIHI certification at N. Gorham

> Doug, Sappi has already approved capital projects in progress for upstream and downstream eel passage at Eel Weir. The Settlement Agreement will not change that. Matt

In short, the SA will have no impact whatsoever on downstream eel passage at the dams upriver of the Dundee project.

For more than three years, the parties to the SA negotiated to reach an agreement that would be the best possible result for water quality of the Presumpscot River. The effort required an enormous investment of resources, in terms of time and money, and at the end of the day each of the parties believes that the SA reached will be to the benefit of the Presumpscot River, the communities that share it and the company that uses it to continue its operations. While CLF and FOPR firmly believe that FOSL's claims -- that the SA is legally or factually infirm -- are without merit, that question is not yet ripe for decision. At this time, the only issue is whether an extension of time is reasonable in order to see if in fact the SA will result in a surrender application that will achieve its stated goals of effective fish passage and ultimately restoration of anadromous fish to their native habitat in the Presumpscot River. We urge you to conclude that such an extension of time is in fact reasonable.

Very truly yours,



Sean Mahoney
Executive Vice President
Director, CLF Maine

cc: Service list
Kathy Howatt, MDEP
Jay Clement, U.S. Army Corps of Engineers
M. Joseph Fayyad, FERC
Jennifer Ambler, FERC
Douglas Watts, FOSL
Meredith Wheeler, FOSL
Scott Anderson, Esq.
Mark Randlett, Esq.
Andrew Tittler, Esq.
Scott Boak, Esq.

Appendix D

Agency Correspondence

Print

Date: Tuesday, October 17, 2017 7:22 AM

From: Shepard, Steven <steven_shepard@fws.gov>

To: Wippelhauser, Gail <Gail.Wippelhauser@maine.gov>

Cc: pbmwork@maine.rr.com <pbmwork@maine.rr.com>

Subject: Re: Sappi's applications to LIHI for certificatuion

Pat

The US Fish and Wildlife Service (Service) concurs with MDMR. Further, the Service defers to MDMR on American eel management issues in Maine waters. Our fish passage engineering staff and I are supporting eel management on the Presumpscot River by providing assistance with eel passage design and testing of same.

Please call or reply by emial if you need any further information.

Steve

~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~

Steven Shepard, C.F.P.
U.S. Fish and Wildlife Service
P.O. Box A
306 Hatchery Road
East Orland, Maine 04431
Direct: 207-902-1572
Mobile: 207-949-1288
Check us out on FaceBook

~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~

Nature does nothing uselessly—Aristotle

On Fri, Oct 13, 2017 at 1:51 PM, Wippelhauser, Gail <Gail.Wippelhauser@maine.gov> wrote:

> Pat:
>
> My responses are inserted below the questions.
>
> Gail Wippelhauser, Ph. D.
> Marine Resources Scientist
> Maine Department of Marine Resources
> #172 State House Station
> Augusta, ME 04333
> Phone: 207-624-6349 Fax: 207-624-6501
> email: gail.wippelhauser@maine.gov
> -----Original Message-----
> From: pbmwork@maine.rr.com [mailto:pbmwork@maine.rr.com]
> Sent: Monday, September 18, 2017 5:34 PM
> To: steven_shepard@fws.gov; Wippelhauser, Gail <Gail.Wippelhauser@maine.gov>
> Subject: Sappi's applications to LIHI for certificatuion
>
> Good afternoon Steve and Gail
>
> I am the reviewer for the Low Impact Hydropower Institute's (LIHI) review of the five applications submitted by Sappi for possible certification. Each of the applications (for Mallision Falls, Little Falls, Gambo, Dundee and Eel Weir) include a letter from each of you supporting certification and identifying the positive actions that Sappi has been taken in the past years regarding fish and eel passage. However, I do have a specific question that I would like to clarify with both of you.
>
> I did see from past 2004 letters from your organizations that three issues associated with downstream eel passage were identified at that time. These letters did not include the Eel Weir Project, but did address Mallision Falls, Little Falls, Gambo and Dundee. These concerns were:
>
> 1) Concern over the appropriate timing for the planned unit shutdowns
> 2) the need for effectiveness testing of the downstream passage measures planned at these four sites
> 3) whether or not the passage of eel via spillage over the dam may injury the eels
>
> From my review of the application, materials in FERC's eLibrary and a discussion with Brad Goulet, it appears to me that the timing issue is being addressed by the annual verification to each of you regarding the approved shutdown period for that season. I also understand that there is a joint understanding / agreement between your organizations and Sappi that effective testing of downstream

passage of eels will be ultimately be done for these downstream sites after Eel Weir's passage facility has been shown to be working as planned. Brad told me that it was agreed that delay in testing of these downstream sites made more technical sense once more eels are moving downstream out of Sebago Lake.

We also wanted to ensure that the shutdown period at the downstream projects was concurrent with releases from Sebago to achieve lake levels in the fall.

Can I assume that such future testing will address the safety of passage via spillage?

Yes.

If so, than it would seem that there is an ultimate, albeit not yet fully approved, plan to be able to address all three of these past concerns. Would you agree with this assessment?

Yes.

If you would prefer that we discuss this topic please let me know what date and time would be good for me to call you.

Thanks for your time.

Pat McIlvaine

Hi Peter,

The following state-listed Endangered, Threatened, and Special Concern species have been documented in the general vicinity of the Presumpscot River watershed. Note that this list should not be considered all-inclusive:

American eel (Special Concern)
Brook floater (State Threatened)
Creek chubsucker (Special Concern)
Eastern box turtle (State Endangered)
Least bittern (State Endangered)
Spotted turtle (State Threatened)
Upland sandpiper (State Threatened)
Wood turtle (Special Concern)

In addition, while a comprehensive statewide inventory for bats has not been completed it is likely that several of species of bats occur within the project area during migration and/or the breeding season:

Little brown bat (State Endangered)
Northern long-eared bat (State Endangered)
Eastern small-footed bat (State Threatened)
Big brown bat (Special Concern)
Red bat (Special Concern)
Hoary bat (Special Concern)
Silver-haired bat (Special Concern)
Tri-colored bat (Special Concern)

Finally, please note that this list does not include any listed species of migratory birds that are likely found in the area during spring and fall migrations.

It is not known what effects, if any, the operations of the project may have on any of the species listed above.

Please let us know if you need additional information.

John

John Perry
Environmental Review Coordinator
Maine Department of Inland Fisheries and Wildlife
284 State Street, 41 SHS
Augusta, Maine 04333-0041
Tel (207) 287-5254; Cell (207) 446-5145
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www.mefishwildlife.com

Correspondence to and from this office is considered a public record and may be subject to a request under the Maine Freedom of Access Act. Information that you wish to keep confidential should not be included in email correspondence.

From: Peter Drown [mailto:peter.drown@cleantechanalytics.com]
Sent: Thursday, September 14, 2017 12:52 PM
To: Perry, John
Cc: Brad Goulet; Robinson, Sydney
Subject: T&E Species - SD Warren Hydro Projects

Hi John,

I am working with SD Warren Co. on several Low Impact Hydropower Applications for their projects on the Presumpscot River. Our reviewer would like to know whether any T&E species are present in the area, but the data we have is from a 1997 study and we were asked to provide more current data, if possible. I understand you provided a Threatened and Endangered Species review for the North Gorham project last November. Could you also provide any T&E species that may be located in the project boundaries of the SD Warren projects?

Project location map is attached.

Thank you,

--
Peter Drown | President
Mobile: (207) 951-3042

cleantech analytics LLC
Skype: peter.r.drown

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