

February 18, 2022

VIA ELECTRONIC FILING

Kimberly D. Bose
Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20246

Re: Topsham Hydro Partners Limited Partnership
Pejepscot Hydroelectric Project, FERC Docket No. P-4784-106
Offer of Settlement and Request for Initiation of Formal Consultation

Dear Secretary Bose:

Pursuant to Rule 602 of the Rules of Practice and Procedure of the Federal Energy Regulatory Commission (“Commission”),¹ Topsham Hydro Partners Limited Partnership (“Topsham Hydro”), licensee of the Pejepscot Hydroelectric Project No. 4784 (“Project”), hereby files this Offer of Settlement consisting of the Settlement Agreement for Modified Prescription for Fishways (“Agreement”), executed by and between Topsham Hydro and the U.S. Department of Commerce (“Commerce”) National Marine Fisheries Service (“NMFS”), and the accompanying Explanatory Statement. As set forth in the Explanatory Statement, the purpose of the Agreement is to resolve among the Parties their disagreements over the appropriate terms of a prescription for fishways for anadromous fish at the Project under the new license.²

The execution of the Agreement alleviated the need for a trial-type hearing on disputed issues of material fact with respect to Commerce’s preliminary prescription filed with the Commission on June 17, 2021. As a result, on February 3, 2022, Topsham Hydro withdrew its July 19, 2021 request for trial-type hearing.

The Agreement is in the public interest³ and is supported by substantial evidence in the record, as required by Section 313(b) of the Federal Power Act.⁴ Accordingly, Topsham Hydro requests that the Commission consider the Agreement in its environmental analysis of the Project relicensing, acknowledge the Offer of Settlement, and incorporate the terms of the Agreement—

¹ 18 C.F.R. § 385.602(b)(2) (2020).

² 16 U.S.C. § 811 (2018).

³ *Policy Statement on Hydropower Licensing Settlements*, Docket No. PL06-5-000, PP 3-5 (issued Sep. 21, 2006).

⁴ 16 U.S.C. § 825l(b).

which will be reflected in the modified prescription for the Project—in the new license for the Project. Topsham Hydro further requests that the Commission initiate formal consultation with NMFS with the intent of NMFS issuing a biological opinion on the effects on Atlantic salmon of relicensing the Project.

With this letter, Topsham Hydro notifies all participants that unless otherwise provided by the Commission, comments on the Offer of Settlement must be filed on or before March 10, 2022, and any reply comments must be filed on or before March 20, 2022.

If you have any questions regarding this filing or require additional information, please contact me.

Respectfully submitted,



Julia S. Wood
Counsel for Topsham Hydro Partners Limited
Partnership

Enclosures

**UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION**

**Topsham Hydro Partners
Limited Partnership**

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Docket No. P-4784-106

SETTLEMENT AGREEMENT EXPLANATORY STATEMENT

Pursuant to Rule 602 of the Rules of Practice and Procedure of the Federal Energy Regulatory Commission (“FERC” or “Commission”), Topsham Hydro Partners Limited Partnership (“Topsham Hydro”), Licensee of the Pejepscot Hydroelectric Project No. 4784 (the “Project” or the “Pejepscot Project”), hereby files this Offer of Settlement in the Project relicensing. The Offer of Settlement consists of: (1) the Settlement Agreement for Modified Prescription for Fishways (“Agreement”) executed by Topsham Hydro and the U.S. Department of Commerce (“Commerce”) National Marine Fisheries Service (“NMFS”) attached hereto; and (2) this Explanatory Statement. As described herein, the Agreement resolves among the Parties all issues related to the passage of anadromous fish at the Project under the new license for the Project pursuant to Section 18 of the Federal Power Act (“FPA”),¹ and is fully supported by the record in this proceeding.² Accordingly, the Agreement is in the public interest. Topsham Hydro respectfully requests that Commission review the terms of the Agreement in its environmental analysis of the Project relicensing, acknowledge the Offer of Settlement, and issue a new license for the Project consistent with the provisions for passage of anadromous fish at the Project set forth in the Agreement and modified prescription to be filed by NMFS consistent with and required by the Agreement.³

¹ 16 U.S.C. § 811 (2018).

² *Id.* § 825l(b).

³ Because the substantive requirements of the Agreement will be included in the modified prescription to be filed by NMFS and included in the new license, the Agreement does not require formal Commission approval. Although

I. BACKGROUND

The 13.88 MW Pejepscot Project is located on the Androscoggin River in the Village of Pejepscot and the Town of Topsham, Maine. The Project is the second of 22 hydroelectric projects on the mainstem Androscoggin River, located at approximately river mile (RM) 14. The Project dam is approximately 4 miles upstream of the Brunswick Hydroelectric Project, for which the license expires on February 28, 2029, and 3.25 miles downstream of the Worumbo Hydroelectric Project, for which the license expires on November 30, 2025.

A. Project License

FERC issued a license for the Project in 1982 for a term of 40 years.⁴ The current license expires on August 31, 2022. Topsham Hydro commenced the relicensing process by filing a Notice of Intent to Relicense the Project and Pre-Application Document with FERC on August 31, 2017. After completing pre-filing consultation with federal and state resource agencies and conducting a number of environmental studies, Topsham Hydro filed a final application for a new license for the Project on August 31, 2020.⁵ FERC issued a “Notice of Application Accepted for Filing, Soliciting Motions to Intervene and Protests, Ready for Environmental Analysis, and Soliciting Comments, Recommendations, Terms and Conditions, and Preliminary Fishway Prescriptions” on April 19, 2021 (“REA Notice”).⁶ Commerce filed

Commission approval of the Agreement is not necessary or required, Topsham Hydro would not object to such approval and endorsement.

⁴ *Worumbo Hydro, Inc.*, 20 FERC ¶ 62,483 (1982).

⁵ Topsham Hydro Partners Limited Partnership, Application for New License for the Pejepscot Hydroelectric Project, Project No. 4784-106 (filed Aug. 31, 2020) (“Final License Application”).

⁶ Notice of Application Accepted for Filing, Soliciting Motions to Intervene and Protests, Ready for Environmental Analysis, and Soliciting Comments, Recommendations, Preliminary Terms and Conditions, and Preliminary Fishway Prescriptions, Project No. 4784-106 (issued Apr. 19, 2021).

its preliminary prescription on June 17, 2021 pursuant to FPA Section 18 in response to FERC's notice ("Preliminary Prescription").⁷

B. Project Features and Operation

As described in Topsham Hydro's application for new license,⁸ the principal Project works include a 560-foot-long, 47.5-foot-high dam, a 480-foot-long spillway, fish passage facilities, and two powerhouses. The original powerhouse contains three horizontal Francis units (identified as Units 21, 22, and 23) with a combined output capacity of 1.58 MW. The maximum flow through each of the three units is approximately 350 cfs, for a total of 1,050 cfs. The newer powerhouse contains a vertical-shaft, low speed, adjustable-blade, propeller type Kaplan turbine-generator unit (identified as Unit 1) rated at 12.3 MW. The minimum and maximum rated flow through Unit 1 is 1,170 and 7,550 cfs, respectively.

The Project has two separate intake structures: the older powerhouse intake and the new powerhouse intake, both of which are integral with the powerhouses. The old powerhouse intake is constructed of concrete and has 1.5-inch clear spacing on the trashracks. The new powerhouse intake is also constructed of concrete and has 1.5-inch clear spacing at the top of the trashrack (from elevation 61.35 feet to elevation 55.1 feet) and 2.5-inch clear spacing at the bottom (from elevation 55.1 feet to elevation 36.0 feet).

The Project includes an upstream fish passage facility consisting of a vertical lift (elevator) that moves migratory fish in a hopper about 30 feet vertically from near the new powerhouse tailrace to the impoundment. The fish lift contains four attraction pumps that create a flow up to 160 cfs through the entry channel to attract the fish to the lift. These pumps

⁷ U.S. Department of Commerce, Comments, Recommendations, Preliminary Terms and Conditions, and Preliminary Fishway Prescriptions, Project No. 4784-106 (filed June 17, 2021) ("Preliminary Prescription").

⁸ See Final License Application Exhibits A and E.

can be sequenced to change the volume of water passing through the entry channel, depending on the flow out of the powerhouse tailrace. The upstream fish lift is operated annually from April 15 to November 15.

Downstream fish passage facilities at the Project—for all species—consist of two steel entry weirs, one on either side of the Unit 1 turbine intake. From each weir, an outlet pipe conveys downstream migrating fish in water down to the tailwater. The weir gates are 4 feet wide. The northerly (left) weir has a 30-inch diameter steel transport pipe that is approximately 185 feet long; the southerly (right) weir has a 24-inch diameter steel transport pipe that is approximately 60 feet long. The downstream fishway is operated from April 1 to December 31 annually for all species as river conditions allow.

C. Fish Resources in the Project Vicinity

In the lower reaches of the Androscoggin River, including in the Project vicinity, the fish assemblage consists of but is not limited to anadromous migrants such as Atlantic salmon, American shad, alewife, and blueback herring as a result of fish passage facilities, stocking, and trap and transport programs. Additionally, American eel have been documented in the vicinity of the Project.

Several studies have been conducted at the Project to assess both upstream passage effectiveness and downstream passage effectiveness, route of passage, and survival for various diadromous species. These studies were conducted in the early 1990s, shortly after the Project fish lift was constructed, and more recently as part of Topsham Hydro’s Endangered Species Act (“ESA”) consultation with resource agencies related to Atlantic salmon, as well as during the FERC relicensing process. In 2019, Topsham Hydro evaluated the effectiveness of the existing upstream passage facilities for adult American shad and river herring as well as downstream

effectiveness studies for American shad, river herring and American eel. Topsham Hydro also completed a Computational Fluid Dynamics modeling study of the existing fish lift and tailrace area.

D. Preliminary Prescription, Request for Trial-Type Hearing, Alternative Prescription, and Settlement

Commerce filed its Preliminary Prescription in response to FERC’s REA Notice on June 17, 2021, pursuant to its authority under FPA Section 18 and Part 221 of Commerce’s regulations. The Preliminary Prescription required several measures related to upstream and downstream fish passage facilities for anadromous fish.

Topsham Hydro filed a request for trial-type hearing on disputed issues of material fact with respect to the Preliminary Prescription on July 19, 2021 (“Trial-Type Hearing Request”). In the same submission to the NMFS Office of Habitat Conservation, Topsham Hydro also filed an alternative prescription for fishways (“Alternative Prescription”).⁹

Subsequently, the Parties entered into an agreement to stay the hearing process to allow for settlement discussions.¹⁰ Those discussions were successful and lead to the execution of the Settlement Agreement (“Agreement”), which became effective January 28, 2022. Because the Agreement resolves among the Parties their disagreement over the appropriate terms of a prescription for the passage of anadromous fish to be included in the new license for the Project, Topsham Hydro withdrew its Trial-Type Hearing Request and Alternative Prescription.¹¹

⁹ Request for Trial-Type Hearing on Disputed Issues of Material Fact and Alternative Prescription, Project No. 4784-106 (filed July 19, 2021). Topsham Hydro also filed with the Commission a reply to the comments filed by NMFS and other stakeholders in response to the REA Notice. Topsham Hydro Partners Limited Partnership, Reply Comments to Stakeholder Comments, Recommendations, and Preliminary Terms and Conditions, Project No. 4784-106 (filed Aug. 2, 2021).

¹⁰ Topsham Hydro Partners Limited Partnership, Notice of Stay of Trial-Type Hearing Process, Project No. 4784-106 (filed Sept. 7, 2021).

¹¹ Withdrawal of Request for Trial-Type Hearing on Disputed Issues of Material Fact and Alternative Prescription, Project No. 4784-106 (filed Feb. 3, 2022).

In addition to executing the Agreement, Topsham Hydro also engaged USFWS on a parallel path with respect to the Department of the Interior’s (“Interior”) preliminary prescription for the upstream and downstream passage of American eel at the Project. Topsham Hydro and USFWS executed a settlement agreement, effective February 3, 2022, with respect to Interior’s modified prescription (“DOI Settlement Agreement”) which Topsham Hydro will separately file into the relicensing record for the Project.

II. OVERVIEW OF AGREEMENT

The Agreement details the terms of the modified prescription for anadromous fish at the Project to be filed by Commerce within 60 days after the deadline for filing comments on the Commission’s draft environmental document.¹² With respect to downstream passage (Section 2.1), the Agreement provides for both interim and permanent downstream fish passage measures, based on the outcome of studies to be conducted by Topsham Hydro. The Agreement also includes several components for upstream passage of anadromous fish (Section 2.2): initial modifications to operations of the existing fish lift; effectiveness monitoring of the initial modifications for the target species; potential additional modifications to the existing fish lift in the event that defined performance standards cannot be met; and effectiveness monitoring of the modifications.

In setting forth these requirements for upstream and downstream passage, the Agreement recognizes that modifications to existing operational measures and facilities, coupled with monitoring and studies on the effectiveness of such measures, may be a cost-effective and viable long-term means for passage of anadromous fish at the Project—namely, Atlantic salmon, river herring, and American shad. Yet the Agreement builds in adaptive management envisioned by

¹² Agreement § 1.9; 18 C.F.R. §§ 5.25(c), (d).

the Preliminary Prescription, through consultation on the development of, and evaluation of the results of, such monitoring and effectiveness studies, to provide alternative means of addressing passage where appropriate. The Agreement also aligns the measures for American eel set forth in the DOI Settlement Agreement, to ensure consistency in the prescriptive requirements of both Commerce and Interior, and to establish a comprehensive approach to safe, timely, and effective passage for all species at the Project. As such, the Agreement builds upon the relicensing record—including Topsham Hydro’s relicensing studies and relicensing proposal in the final license application, the Preliminary Prescription, and Topsham Hydro’s Alternative Prescription—to develop a fully-supported modified prescription for incorporation into the new license that is in the public interest.

In addition to substantive requirements for upstream and downstream passage of anadromous species at the Project, the Agreement includes several other components. First, the Agreement reserves Commerce’s authority under Section 18 of the FPA to prescribe additional upstream or downstream fishway facilities in the future.¹³ Second, while it is the intent of the Parties that the terms and conditions of the Agreement fully address NMFS’s responsibilities with respect to ESA-listed Atlantic salmon, the Agreement clarifies that the Agreement is not intended to predetermine the outcome of any required ESA consultation for the Project, by reserving NMFS’s rights under Section 7 of the ESA and to make determinations and take actions as necessary to meet its obligations under the ESA and applicable implementing regulations. Accordingly, Topsham Hydro requests, with the filing of the Agreement, that the

¹³ Agreement § 2.3.

Commission initiate formal consultation with NMFS with the intent of NMFS issuing a biological opinion on the effects on Atlantic salmon of relicensing the Project.¹⁴

III. CONCLUSION

The Agreement successfully resolves the Parties' disagreements over the appropriate terms of a prescription for fishways for anadromous fish at the Project. The resulting provisions of the Agreement are supported by the record and in the public interest. Topsham Hydro therefore respectfully requests that the Commission review the terms of the Agreement in its environmental analysis for the Project relicensing, acknowledge the Offer of Settlement, and issue a new license for the Project consistent with the provisions of the Agreement—which will be reflected in the modified prescription for the Project—as set forth herein. In addition, Topsham Hydro respectfully requests that the Commission initiate formal consultation with NMFS regarding the effects on Atlantic salmon of relicensing the Project.

Respectfully submitted,



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¹⁴ *Id.* § 2.4.

**UNITED STATES OF AMERICA
BEFORE THE
DEPARTMENT OF COMMERCE
AND
FEDERAL ENERGY REGULATORY COMMISSION**

Topsham Hydro Partners Limited Partnership)
)
Pejepscot Hydroelectric Project) **Project No. 4784**
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**SETTLEMENT AGREEMENT
FOR
MODIFIED PRESCRIPTION FOR FISHWAYS**

INTRODUCTION

This Settlement Agreement for Modified Prescription for Fishways (“Agreement”) is made and entered into by Topsham Hydro Limited Partnership (“Topsham Hydro”), licensee of the Pejepscot Hydroelectric Project, FERC Project No. 4784 (“Project”), and the United States Department of Commerce (“Department”) National Marine Fisheries Service (“NMFS” or “Service”) (each a “Party” and collectively, the “Parties”). This Agreement relates to the ongoing relicensing proceeding for the Project before the Federal Energy Regulatory Commission (“FERC”), and specifically to the terms of the Department’s modified prescription for fishways (“Modified Prescription”) to be included in the new license for the Project (“New License”) pursuant to Section 18 of the Federal Power Act (“FPA”), 16 U.S.C. § 811, with respect to anadromous fish.

This Agreement follows Topsham Hydro’s filing on July 19, 2021 with the Department of a Request for Trial-Type Hearing on Disputed Issues of Material Fact and Alternative Prescription Pertaining to a Preliminary Section 18 Fishway Prescription pursuant to Sections 18 and 33(b) of the FPA and 50 C.F.R. §§ 221.21 and 221.71. The Parties subsequently agreed to stay the trial-type hearing process pursuant to 50 C.F.R. § 221.24 to allow for settlement discussions. The Agreement resolves all issues related to the passage of anadromous fish at the Project under the New License.

1.0 GENERAL TERMS

1.1 Term of the Agreement

This Agreement shall become effective as of the date of the last signatory hereto (the “Effective Date”) and remain in effect, in accordance with its terms, throughout the term of the New License, including any annual licenses thereafter.

1.2 Purpose and Goals

The purpose of this Agreement is to resolve among the Parties their disagreement over the appropriate terms of a prescription for the passage of anadromous fish to be included in the New License pursuant to Section 18 of the FPA.

1.3 Support for Terms of Agreement

The Parties agree that this Agreement is fair and reasonable and in the public interest within the meaning of Commission Rule 602 governing offers of settlement. 18 C.F.R. § 385.602. The Parties agree to support issuance of a New License by FERC that is consistent with the terms of this Agreement. For those issues addressed herein, namely the passage of anadromous fish, the Parties agree that the terms included in Section 2.0 herein will constitute the full and complete requirements of the Department’s Modified Prescription for the Project. With the exception of the Department’s Reservation of Authority under Section 18 of the FPA (described in Section 2.3) and NMFS’ obligations under Section 7 of the Endangered Species Act (“ESA”) (described in Section 2.4), the Parties further agree not to

propose or otherwise communicate any comments, certification, recommendations, or license conditions that are inconsistent with the terms of this Agreement, or additive to the terms of this Agreement, to FERC or any other federal or state resource agency with jurisdiction over fish passage, water quality, or other environmental aspects of the Project.

1.4 Successors and Assigns

This Agreement shall be binding upon and shall inure to the benefit of the Parties hereto and their respective successors and assigns.

1.5 Agency Appropriations

Nothing in this Agreement shall be construed as: (i) obligating any Federal agency to expend in any fiscal year any sum in excess of appropriations made by Congress, or administratively allocated for the purpose of this Agreement for the fiscal year; or (ii) involving the Service in any contract or obligation for the future expenditure of money in excess of such appropriations or allocations.

1.6 No Precedent

This Agreement is made with the express understanding that it constitutes a negotiated resolution of issues specific to the Project. The Parties entered into the negotiations and discussions leading to this Agreement with the explicit understanding that such negotiations and discussions are privileged and confidential, shall not prejudice the position of any Party, and are not to be otherwise used in any manner in connection with these or any other proceedings. Accordingly, nothing in this Agreement will be construed or offered as evidence or used to establish any principle or precedent that may be cited by the Parties to FERC or any court or administrative hearing process with regard to any other proceeding except to establish the evidence of or to enforce or implement this Agreement. This Section 1.6 shall survive any termination of this Agreement. Any Party withdrawing from this Agreement pursuant to Section 1.10 will continue to be bound by this Section 1.6.

1.7 Filing of Agreement with FERC

The Parties agree that within 21 days of the Effective Date, Topsham Hydro shall file this Agreement, together with an Explanatory Statement, with FERC pursuant to 18 C.F.R. § 385.602 in the docket for the Project relicensing.

1.8 Withdrawal of Trial-Type Hearing Request and Alternative Prescription

Within five days of the Effective Date of this Agreement or no later than February 4, 2022, Topsham Hydro shall withdraw its Request for Trial-Type Hearing on Disputed Issues of Material Fact and Alternative Prescription Pertaining to the Department's Preliminary Section 18 Fishway Prescription, which Topsham Hydro filed with the Department on July 19, 2021.

1.9 Filing of Modified Prescription

The Department shall file a Modified Prescription for anadromous fish at the Project that is fully consistent with the terms of this Agreement within 60 days after the deadline for filing comments on FERC's draft environmental document as required by 18 C.F.R. § 5.25(c) and consistent with 50 C.F.R. § 221.73(a). The Service will make every effort to make a draft available to Topsham Hydro at least 30 days ahead of the deadline for filing the Modified Prescription and work in good faith to resolve any concerns expressed by Topsham Hydro that the proposed Modified Prescription may deviate in any way from this Agreement. Topsham Hydro shall notify the Service of any concerns within ten days after the draft Modified Prescription is provided by the Service to Topsham Hydro for review.

1.10 Withdrawal Rights

No Party may withdraw from this Agreement without the prior written consent of the other Party, which consent may be withheld in another Party's sole discretion; provided, however, Topsham Hydro may unilaterally withdraw from this Agreement if: (i) the Department issues a Modified Prescription that deviates in any material fashion from this Agreement; (ii) a state agency issues a water quality certification that contains fish passage conditions that are materially additive to, or materially inconsistent with, the terms of this Agreement, and the water quality certification issued by said state agency is not thereafter satisfactorily modified after administrative and judicial appeals are pursued by the Licensee; or (iii) FERC issues a New License that contains conditions which are materially additive to, or materially inconsistent with, the terms of this Agreement as reflected in Section 2, and the New License is not thereafter satisfactorily modified as a result of the filing of a request for rehearing as provided in Section 1.11.

A Party withdrawing from this Agreement shall provide 20 days' prior written notice, which notice shall include a written explanation of the reasons for withdrawing from this Agreement. In the event that a Party withdraws from this Agreement pursuant to this Section 1.10, this Agreement shall thereafter be null and void, and any Party may take the position that this Agreement is not available to support FERC's public interest determination.

1.11 Rehearing and Judicial Review

The Parties agree not to file a request with FERC for rehearing of the New License concerning matters addressed in this Agreement unless: (i) the New License contains conditions which are materially inconsistent with the terms of this Agreement; or (ii) the New License contains fish passage conditions that are materially additive to the terms of the Agreement. In the event a Party decides to file a request for rehearing in accordance with the terms of this provision, it will provide the other Party written notice of its intention to file a request for rehearing at the earliest practicable time. Any Party, following the issuance of a FERC order on rehearing, may elect to file a petition for judicial review with respect to the matters covered by this provision, and the other Party will not oppose such petition.

1.12 Modification of Time Limits

The Parties may, by mutual written agreement, modify any time limit in this Agreement, if there is substantial reason for the modification. The Parties acknowledge that any modifications to time limits under the New License must be approved by FERC.

1.13 Counterparts

This Agreement may be executed in any number of counterparts, all of which taken together shall constitute one and the same instrument.

1.14 Merger and Modification

This Agreement constitutes the sole Agreement of the Parties hereto and correctly states the rights, duties, and obligations of each Party as of the Effective Date. Any prior agreement, promises, negotiations, or representations between the Parties not expressly stated in this Agreement are not binding. The Parties may, by mutual agreement, modify this Agreement, if there is substantial reason for the modification, but all subsequent modifications to this Agreement shall be in writing and signed by the Parties. The Parties acknowledge that modifications to this Agreement may require approval by FERC.

2.0 MODIFIED PRESCRIPTION FOR FISHWAYS

The Department agrees to file a Modified Prescription as set forth in Section 1.9 above reflecting the following terms:

2.1 Downstream Fish Passage

2.1.1 Interim spillage for Atlantic salmon smolt passage

As an interim measure, beginning in the first passage season after license issuance, Topsham Hydro will open bascule gate No. 1 (closest to the powerhouse) 50% to provide approximately 500 cfs of spill at night (2000 – 0700 hours) during the month of May. This measure will remain in effect until Topsham Hydro installs either a) the fish guidance boom or b) ¾-inch trashracks as described below.

Topsham Hydro will maintain operation of the current north (left bank) and south (right bank) downstream fish bypasses during this interim period

2.1.2 Interim nighttime shutdowns

Pursuant to Topsham Hydro's settlement agreement for modified prescription for fishways with the Department of the Interior ("DOI Settlement Agreement") regarding DOI's modified prescription for the upstream and downstream passage of American eel, Topsham Hydro will implement interim nighttime turbine shutdowns at the Project's newer (1987 Kaplan Turbine (12.3 MW)) and original (1898 Francis turbines (1.58MW))

powerhouses to protect emigrating American eel during the downstream eel passage season (September 1 to October 31) beginning in the first passage season after license issuance and continuing to 2032.

2.1.3 Optional study to determine effectiveness of nighttime shutdowns

Pursuant to the DOI Settlement Agreement, Topsham Hydro may, at its option, develop and conduct a 3-consecutive-year study to assess the effectiveness of nighttime shutdowns as a long-term protection measure for downstream passage of American eel. The study would be completed between 2025-27, with the reporting of study results in 2028.

2.1.4 Continued nighttime shutdowns

If DOI agrees that the results of the 3-year study described in Section 2.1.3 indicate that nighttime shutdowns are a viable long-term means of protection for American eel passing downstream at the Project, nighttime shutdowns would continue during the new license. Additionally, Topsham Hydro will implement a fish guidance boom as described in Section 2.1.5. Periodic effectiveness monitoring of the shutdowns will be conducted every 10 years after the completion of the first 3-year effectiveness study to ensure eels continue to be protected by the nighttime shutdown measure.

2.1.5 Fish guidance boom

If the 3-year study described in Section 2.1.3 indicates nighttime shutdowns are a viable long-term means of protection for American eel passing downstream at the Project, Topsham Hydro will implement a fish guidance boom to direct surface oriented downstream migrants (e.g., alosines and Atlantic salmon) to a new bypass within bascule gate No. 1 to be operational for the 2029 downstream passage season.

2.1.6 Effectiveness testing of fish guidance boom

If the fish guidance boom and new bypass within bascule gate No. 1 are installed, Topsham Hydro will conduct downstream effectiveness testing for Atlantic salmon, river herring, and American shad. Monitoring to assess the effectiveness of the fish guidance boom will begin after a one-year shakedown period (i.e., during which Topsham Hydro evaluates the mechanical function and integrity of the guidance boom) is complete and be conducted over two fish passage seasons. A third year of study may be deemed necessary after consultation between Topsham Hydro and NMFS to account for factors, including but not limited to, abnormal hydrologic conditions and Project operations. A study plan for the above effectiveness testing will be developed in consultation with NMFS and the resource agencies (U.S. Fish and Wildlife Service (“USFWS”), Maine Department of Marine Resources (“MDMR”), and Maine Department of Inland Fisheries and Wildlife (“MDIFW”)) and approved by NMFS prior to implementing effectiveness testing.

If performance standards cannot be met with the fish guidance boom and bypass within the monitoring period, Topsham Hydro will consult with NMFS and the resource agencies (USFWS, MDMR, and MDIFW) to develop a plan and schedule for additional modifications.

2.1.7 Permanent downstream protection measures

If the 3-year study described in Section 2.1.3 indicates nighttime shutdowns are not a viable long-term means of protection for American eel passing downstream of the Project or Topsham Hydro elects not to conduct the 3-year study, Topsham Hydro will implement permanent downstream protection and passage measures consisting of seasonal (May 1 to December 31) trashracks with bar spacing at a maximum of ¾-inches with an inclined or angled configuration at the newer powerhouse.

The permanent measure will also include bypass/es providing a safe, timely and effective downstream passage route(s). The permanent downstream protection and passage measures will be operational for the 2033 downstream passage season. Topsham Hydro will consult with NMFS regarding the selected design which will conform to the USFWS engineering design criteria relevant at that time, which are anticipated to include hydraulic criteria for sweeping velocity.

2.1.8 Effectiveness testing of permanent downstream protection measures

If year-round, ¾-inch trashracks are installed as a permanent measure, two years of effectiveness testing for downstream migrating Atlantic salmon, river herring and American shad will be required. A third year of study may be deemed necessary after consultation between Topsham Hydro and NMFS to account for factors, including but not limited to, abnormal hydrologic conditions and Project operations. A study plan will be developed in consultation with NMFS and the resource agencies (USFWS, MDMR, and MDIFW) and approved by the NMFS prior to implementing effectiveness testing.

2.2 Upstream Fish Passage

2.2.1 Initial fish lift modifications

Upon license issuance, Topsham Hydro will operate the existing vertical entrance gate to accommodate the full 160 cfs of attraction water or more with the top of the gate positioned a minimum of 3.0 feet below the tailrace elevation under varying river flows and maintain an entrance velocity within the 4-6 ft/s range for alosines and up to 8 ft/s for Atlantic salmon and a drop at the entrance within the typical range of 0.5 to 2.0 feet.

Upon license issuance, Topsham Hydro will operate the attraction water system at full capacity, regardless of unit discharge, unless monitoring studies indicate different operations are warranted.

2.2.2 Fish lift operation schedule

Topsham Hydro will operate the existing upstream fish lift on the following lift cycle frequency beginning in the first full passage season after the effective date of the new license:

Upon the passage of the first fish at the downstream Brunswick Project or by May 1 to July 31: lift frequency and facility operating hours will be determined on an annual basis, prior to the fish passage season in consultation with NMFS, and USFWS. Lift frequency may vary from every 15 minutes during peak migration periods to once every 2 hours. Both lift frequency and operating hours will be adaptively managed based upon site-specific conditions, in consultation with the above resource agencies.

August 1 to November 15: lift frequency and facility operating hours will be determined on an annual basis, prior to the fish passage season, in consultation with NMFS and USFWS. Lift frequency may vary from every 15 minutes to once a day, upon any passage of salmon at Brunswick Dam during the passage season (May 1 to November 15). Both lift frequency and operating hours will be adaptively managed based upon site-specific conditions, in consultation with the above resource agencies.

2.2.3 Fish lift effectiveness monitoring

Monitoring to assess the effectiveness of the initial modifications described above will begin in the first full passage season after license issuance and be conducted over two fish passage seasons. A third year of study may be deemed necessary after consultation between Topsham Hydro, NMFS, and the resource agencies (USFWS, MDMR, and MDIFW) to account for factors, including but not limited to, abnormal hydrologic conditions and Project operations. Topsham Hydro will conduct studies to evaluate the effectiveness of the initial modifications for adult Atlantic salmon, river herring and American shad. Following each study, Topsham Hydro will provide the agencies with a draft report and allow 30 days for review and comment. Topsham Hydro will file the final annual reports with FERC no later than November 30 of each year. Final reports should append any agency comments.

2.2.3.1 Upstream passage studies for Atlantic salmon

Upstream passage studies for adult Atlantic salmon will be conducted if/when sufficient stocking occurs upstream of the Project to produce at least 40 returning adult Atlantic salmon. The study will be conducted in the year that sufficient adults are anticipated. A study plan will be developed in consultation with NMFS and the resource agencies (USFWS, MDMR, and MDIFW) and approved by NMFS prior to implementing effectiveness testing and will describe the monitoring technique, field and analytical techniques and targeted sample sizes.

2.2.3.2 Upstream passage studies for American shad

Upstream passage studies for American shad will be conducted as follows:

Test specimens will be collected from the Brunswick fish passage facility or in the Brunswick tailrace via hook and line sampling, tagged, and released. Topsham Hydro will implement best practices to minimize handling stress and the potential for fallback after tagging and release.

Data collection will occur for at least two consecutive passage seasons, or until data pooling allows for analysis of at least 60 individuals that have approached the study reach.¹

2.2.3.3 Upstream passage studies for river herring

Upstream passage studies for river herring will be conducted as follows:

Test specimens will be collected from the Brunswick fish passage facility, tagged and released. Topsham Hydro will implement best practices to minimize handling stress and the potential fallback after tagging and release.

Up to a total of 125 adult river herring will be tagged and released from the Brunswick fishway per study year.

2.2.3.4 Performance standards

Anticipated performance standards for alosines may be similar to those required on other river systems (e.g., Turner's Falls, FERC No. 1889 on the Connecticut River), where upstream passage efficiency is required to be at least 70% within 48 hours of a fish approaching the Project works; and downstream passage survival is required to exceed 95%. The Department expects to finalize performance standards for Atlantic salmon during ESA consultation and in the development of monitoring plans. If information suitable to derive standards is available, NMFS will incorporate such standards in its modified prescription.

2.2.4 Potential flap gate modification

If the defined performance standards for river herring and American shad cannot be met with the above proposed measures within the monitoring period, no later than 2027 Topsham Hydro will replace the existing vertical entrance gate with a bottom-opening flap gate. The gate will be designed in consultation with NMFS and USFWS to accommodate the full 160 cfs of attraction water or more with the top of the gate positioned a minimum of 3.0 feet below the tailrace elevation under varying river flows

¹ Pooling will be considered an acceptable approach to maximizing the sample size for analysis, but differences in effectiveness attributed to environmental conditions (i.e., high flow/low flow) during the study years will need to be considered in any reporting.

and maintain an entrance velocity within the 4-6 ft/s range for alosines and up to 8 ft/s for Atlantic salmon and a drop at the entrance approximately 0.8 feet normally with the capability of increasing up to 1.5 to 2.0 feet.

2.2.5 Effectiveness monitoring of flap gate modification

Monitoring to assess the effectiveness of the flap gate modification described above will begin after a one-year shakedown period is complete, and will be conducted over two fish passage seasons. A third year of study may be deemed necessary after consultation between Topsham Hydro and NMFS to account for factors, including but not limited to, abnormal hydrologic conditions and Project operations. Studies for adult river herring, American shad and Atlantic salmon will proceed consistent with the methods defined above.

If performance standards cannot be met with the flap gate modifications within the monitoring period, Topsham Hydro will consult with NMFS and the resource agencies (USFWS, MDMR, and MDIFW) to develop a plan and schedule for additional modifications.

2.3 Reservation of Authority

NMFS reserves the Secretary's authority under Section 18 of the FPA to prescribe additional upstream or downstream fishway facilities in the future.

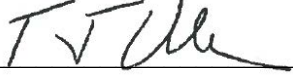
2.4 ESA Section 7 Consultation

Nothing in this Agreement is intended to be or shall be construed as prejudging or predetermining the outcome of any required ESA consultation for this Project. NMFS reserves its rights under ESA Section 7 and to make determinations and take actions as necessary to meet its obligations under the ESA and applicable implementing regulations.

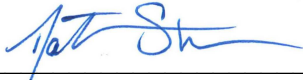
Upon the filing of this Agreement, the Topsham Hydro shall request that FERC initiate formal consultation with NMFS with the intent of NMFS issuing a Biological Opinion on the effects of the Project on Atlantic salmon. It is the intent of the Parties that the terms and conditions of this Agreement fully address NMFS' responsibilities with respect to the ESA-listed Atlantic salmon. However, until the anticipated Biological Opinion is issued, any reasonable and prudent measures, terms and conditions, and/or reasonable and prudent alternatives to be contained in that anticipated Biological Opinion are as yet not known. Accordingly, the Parties agree that NMFS' signature on this Agreement is not pre-determinative with respect to its anticipated Biological Opinion and that NMFS' signature herein does not bind it to any specific recommendations or to any particular action, nor does the Agreement circumscribe the nature of the recommendations or actions available with respect to the anticipated Biological Opinion or with respect to ESA compliance.

ACKNOWLEDGED AND AGREED TO BY

Topsham Hydro Partners Limited Partnership
By its general partner, Brown Bear GP, LLC

Handwritten signature of Thomas Uncher in black ink.

Thomas Uncher, Vice President

Handwritten signature of Nathan Stevens in blue ink.


Nathan Stevens, Director, Asset Management

January 28, 2022

ACKNOWLEDGED AND AGREED TO BY

National Marine Fisheries Service

**Michael
Pentony**

 Digitally signed by Michael
Pentony
Date: 2022.01.28 16:57:26
-05'00'

Michael Pentony, Regional Administrator,
Greater Atlantic Regional Fisheries Office

January 28, 2022

CERTIFICATE OF SERVICE

Pursuant to Rule 2010 of the Rules of Practice and Procedure of the Federal Energy Regulatory Commission, I hereby certify that I have this day caused the foregoing document to be served upon each person designated on the official service list compiled by the Secretary in Docket No. P-4784.

Dated at Washington, DC, this 18th day of February, 2022.

/s/ Christopher Todd
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