

February 24, 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

Dear Secretary Bose:

Pursuant to Rule 602 of the Rules of Practice and Procedure of the Federal Energy Regulatory Commission (“Commission”),<sup>1</sup> 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 the Interior (“Department”) Fish and Wildlife Service, 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 upstream and downstream passage of American eel at the Project under the new license.<sup>2</sup>

The execution of the Agreement alleviated the need for a trial-type hearing on disputed issues of material fact with respect to Department’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 interest<sup>3</sup> and is supported by substantial evidence in the record, as required by Section 313(b) of the Federal Power Act.<sup>4</sup> 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—

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<sup>1</sup> 18 C.F.R. § 385.602(b)(2) (2020).

<sup>2</sup> 16 U.S.C. § 811 (2018).

<sup>3</sup> *Policy Statement on Hydropower Licensing Settlements*, Docket No. PL06-5-000, PP 3-5 (issued Sept. 21, 2006).


<sup>4</sup> 16 U.S.C. § 825I(b).

which will be reflected in the modified prescription for the Project—in the new license for 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 16, 2022, and any reply comments must be filed on or before March 26, 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 the Interior’s (“Department”) Fish and Wildlife Service (“USFWS”) attached hereto; and (2) this Explanatory Statement. As described herein, the Agreement resolves among the Parties all issues related to upstream and downstream passage of American eel at the Project under the new license pursuant to Section 18 of the Federal Power Act (“FPA”),<sup>1</sup> and is fully supported by the record in this proceeding.<sup>2</sup> Accordingly, the Agreement is in the public interest. The Commission should consider 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 upstream and downstream passage of American eel at the Project set forth in the Agreement and in the modified prescription to be filed by USFWS consistent with and required by the Agreement.<sup>3</sup>

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<sup>1</sup> 16 U.S.C. § 811 (2018).

<sup>2</sup> *Id.* § 825l(b).

<sup>3</sup> Because the substantive requirements of the Agreement will be included in the modified prescription to be filed by USFWS and included in the new license, the Agreement does not require formal Commission approval.

## **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.<sup>4</sup> 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.<sup>5</sup> 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”).<sup>6</sup> The Department

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

<sup>4</sup> *Worumbo Hydro, Inc.*, 20 FERC ¶ 62,483 (1982).

<sup>5</sup> 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”).

<sup>6</sup> 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).

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

## **B. Project Features and Operation**

As described in Topsham Hydro's application for new license,<sup>8</sup> 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 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 designed primarily for anadromous fish 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 upstream fishway is operated annually from April 15 to November 15. Currently, there are no fish passage facilities at the Project specifically designed to move American eel upstream.

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<sup>7</sup> U.S. Department of the Interior, Comments, Recommendations, Prescriptions, at Attachment A, Project No. 4784-106 (filed June 17, 2021) ("Preliminary Prescription").

<sup>8</sup> See Final License Application Exhibits A and E.

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.<sup>9</sup> 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

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<sup>9</sup> *Id.* at E-76.

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**

On June 17, 2021, the Department filed its Preliminary Prescription with FERC pursuant to its authority under FPA Section 18 and Part 45 of the Department’s regulations. The Preliminary Prescription prescribed interim and permanent upstream passage for American eel. The Preliminary Prescription also prescribed interim and permanent downstream passage for the species.

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 Department’s Office of Environmental Policy and Compliance, Topsham Hydro also filed an alternative prescription for fishways (“Alternative Prescription”).<sup>10</sup>

Following the filing of the Trial-Type Hearing Request and Alternative Prescription, Topsham Hydro and the Department’s USFWS entered into an agreement to stay the hearing process to allow for settlement discussions.<sup>11</sup> Those discussions were successful and led to the execution of the Settlement Agreement (“Agreement”), which became effective February 3, 2022. Because the Agreement resolves among the Parties all issues related to upstream and downstream passage of American eel at the Project under the new license, Topsham Hydro withdrew its Trial-Type Hearing Request and Alternative Prescription.<sup>12</sup>

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<sup>10</sup> Request for Trial-Type Hearing on Disputed Issues of Material Fact and Alternative Prescription, Project No. 4784-106 (filed July 19, 2021).

<sup>11</sup> Topsham Hydro Partners Limited Partnership, Notice of Stay of Trial-Type Hearing Process, Project No. 4784--106 (filed Sept. 7, 2021).

<sup>12</sup> 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 the National Marine Fisheries Service (“NMFS”) on a parallel path with respect to the Department of Commerce’s preliminary prescription for the upstream and downstream passage of anadromous fish at the Project. Topsham Hydro and NMFS executed a settlement agreement, effective January 28, 2022, with respect to Commerce’s modified prescription (“DOC Settlement Agreement”) which Topsham Hydro has separately filed into the relicensing record for the Project.

## **II. OVERVIEW OF AGREEMENT**

The Agreement details the terms of the modified prescription for upstream and downstream passage of American eel at the Project to be filed by the Department within 60 days after the deadline for filing comments on the Commission’s draft environmental document.<sup>13</sup> With respect to downstream passage of American eel (Section 2.1), the Agreement provides for both interim and permanent downstream passage measures, based on the outcome of studies to be conducted by Topsham Hydro, as well as effectiveness testing of those interim and permanent measures. With respect to upstream passage of American eel (Section 2.2), the Agreement includes temporary upstream passage measures, permanent upstream passage measures, and effectiveness testing of those permanent measures.

The Agreement recognizes that modifications to existing operational measures, coupled with studies on the effectiveness of such measures, may be a cost-effective and viable long-term means for passage of American eel at the Project. Yet the Agreement builds in an adaptive management approach, through consultation on the development of, and evaluation of the results of, such studies, to provide alternative means of addressing passage where appropriate.

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<sup>13</sup> Agreement § 1.9; 18 C.F.R. §§ 5.25(c), (d).



The Agreement also aligns the measures for anadromous species set forth in the DOC Settlement Agreement, to ensure consistency in the prescriptive requirements of both the Department and Commerce, 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.

Finally, in addition to substantive requirements for upstream and downstream passage of American eel at the Project, the Agreement includes a provision that reserves the Department’s authority under Section 18 of the FPA to prescribe additional upstream or downstream fishway facilities in the future should they be deemed necessary.<sup>14</sup>

### **III. CONCLUSION**

The Agreement successfully resolves the parties’ disagreements over the appropriate terms of a prescription for the upstream and downstream passage of American eel 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.

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<sup>14</sup> *Id.* § 1.15.

Respectfully submitted,



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Partnership

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

**Topsham Hydro Partners Limited Partnership** )  
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**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 the Interior (“Department”) Fish and Wildlife Service (“USFWS” 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 American eel.

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 43 C.F.R. §§ 45.21 and 45.71. The Parties subsequently agreed to stay the trial-type hearing process pursuant to 43 C.F.R. § 45.24 to allow for settlement discussions. The Agreement resolves all issues related to upstream and downstream passage of American eel 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 American eel to be included in the New License pursuant to Section 18 of the FPA.

#### **1.3 Support for Terms of Agreement**

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 upstream and downstream passage of American eel, 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. Without limiting the Department’s Reservation of Authority under Section 18 of the FPA, the Parties further agree not to propose or otherwise communicate, in the relicensing proceeding, any comments, certification, recommendations, or license conditions regarding American eel passage that are inconsistent with, 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 USFWS 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 as a legal precedent that may be cited by the Parties to FERC or any court or administrative hearing process with regard to any other proceeding. 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. Topsham Hydro also will notify FERC of the withdrawal of its Trial-Type Hearing on Disputed Issues of Material Fact and Alternative Prescription Pertaining to the Department's Preliminary Prescription when it withdraws the filing pursuant to Section 1.8.

#### **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 American eel 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 43 C.F.R. § 45.73(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 for American eel 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 for American eel 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 twenty 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 for American eel 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.

### **1.15 Reservation of Authority**

In addition to the protection measures in this Agreement, the Department will reserve the Secretary's authority under Section 18 of the FPA to prescribe the construction, operation, and maintenance of fishways at the Project, as appropriate, including measures to determine, ensure, or improve the effectiveness of such fishways.

## **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 Passage of American Eel**

#### **2.1.1 Interim nighttime shutdowns**

Topsham Hydro will implement interim nighttime turbine shutdowns at the Project's newer (1987 Kaplan Turbine (12.3 MW)) and original (1898 Francis turbines (1.58 MW)) powerhouses to protect emigrating American eel during the downstream eel passage season beginning in the first passage season after license issuance and continuing to 2032. Turbine shutdowns will occur from dusk (½ hour after sunset) to dawn (½ hour before sunrise) during the duration of the downstream eel passage season, defined as the period September 1 to October 31. Topsham Hydro agrees to implement adjustments or expansion of the shutdown period in the event the Department determines and/or demonstrates, based on scientific data that is applicable to the Project from rivers in the

Department's North Atlantic Appalachian Region, that such adjustments or expansion are necessary.

### **2.1.2 Optional study to determine effectiveness of nighttime shutdowns**

**2.1.2.1** 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. If the Department agrees that the results of the studies indicate that nighttime shutdowns are a viable long-term means of protection for American eel passing downstream of the Project, Topsham Hydro and the Department agree to remove the requirement for installation of  $\frac{3}{4}$ -inch trashracks. Any 3-year study shall use the best available survey techniques (including, but not limited to, dead drift analysis, x-ray techniques, etc.), would be developed in consultation with, and approved by the Department, with the reporting of the study results in 2028. Topsham Hydro will consult with the Department with regard to study methodology and parameters, including sample size and collection source for test fish. If the parties are unable to reach agreement on study methodology and parameters, Topsham Hydro will forego the aforementioned studies and will implement permanent  $\frac{3}{4}$ -inch trashracks (as detailed in Section 2.1.3 "Permanent downstream protection measures" below) to be operational by 2033.

**2.1.2.2** If study results indicate that nighttime shutdowns are a viable long-term means of protection for American eel passing downstream of the Project, Topsham Hydro agrees to perform a 2-year study, with an optional third year, if needed, developed in consultation with, and approved by, the Department every 10 years after the completion of the first study and over the duration of the New License to ensure eels continue to be protected as they emigrate past the Project. Should any of the aforementioned studies indicate, during the duration of the license, that shutdowns are no longer a viable long-term means of protection for American eel passing downstream of the Project, Topsham Hydro will (1) alter or adjust implementation of shutdowns so that they are protective and restudy, or (2) implement permanent  $\frac{3}{4}$ -inch trashracks (as detailed in Section 2.1.3 "Permanent downstream protection measures" below). Topsham Hydro, in consultation with the Department, will notify FERC regarding the results of the studies and Topsham Hydro's (1) continued implementation of shutdowns, or (2) implementation of permanent downstream protection measures as described below and as appropriate, based on the study results.

### **2.1.3 Permanent downstream protection measures**

**2.1.3.1** If nighttime shutdowns are not a viable long-term means of protection for American eel passing downstream of the Project, Topsham Hydro, in consultation with, and requiring approval by, the Department, will develop 30% design plans by 2030 for permanent downstream protection and passage measures consisting of seasonal (May 1 to December 31) trashracks with bar spacing at a maximum of  $\frac{3}{4}$ -inches with inclined or angled configuration and/or consistent with USFWS engineering design criteria at the newer powerhouse. Topsham Hydro in consultation



with the Department will implement adjustments to the seasonal period in the event that USFWS determines such adjustments are necessary or appropriate based on scientific data that is applicable to the Project from rivers in the Department's North Atlantic Appalachian Region. At any time during the license period, Topsham Hydro and the Department may agree to implement permanent, year-round trashracks with bar spacing at a maximum of  $\frac{3}{4}$  inches with inclined or angled configuration and/or consistent with USFWS engineering design criteria.

**2.1.3.2** 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. The selected design will conform to the USFWS engineering design criteria for sweeping velocity (velocity component parallel to the guidance structure pointing in the direction of the bypass) and normal velocity (velocity component perpendicular to the guidance structure pointing directly at the face of the structure). The design criteria may be adjusted, subject to approval by USFWS, based on scientific data available at the time that is applicable to the Project such as Computational Fluid Dynamics ("CFD") modeling of the intake area, which may be used to inform the hydraulic conditions associated with the design.

**2.1.3.3** Topsham Hydro will develop an Operations and Maintenance ("O&M") Plan in consultation with, and requiring approval by, the Department, that includes annual inspection of seasonal trashracks while they are out of the water and while they are in place to ensure proper spacing and functionality. If the Department requests a modification of the O&M Plan, Topsham Hydro will consult with the Department and amend the O&M Plan within 30 days of the request and send a copy of the revised O&M Plan to the Department.

**2.1.3.4** Topsham Hydro will continue to institute nighttime shutdowns at the original powerhouse during this period (see Interim Nighttime Shutdowns Section).

**2.1.3.5** If Topsham Hydro installs seasonal (May 1 to December 31),  $\frac{3}{4}$ -inch angled or inclined trashracks as a permanent measure, effectiveness testing for one year, for American eel, will be required.

**2.1.3.6** If Topsham Hydro is prevented from timely seasonal implementation of the  $\frac{3}{4}$ -inch angled or inclined trashracks for demonstrated reasons communicated to the Department by May 1 such as safety concerns or river conditions, for a total of four years during the license term, Topsham Hydro will consult with and obtain approval from the Department on the need for permanent, year-round  $\frac{3}{4}$ -inch angled or inclined trashracks.

## **2.2 Upstream Passage of American Eel**

### **2.2.1 Temporary Upstream Eel Passage**

**2.2.1.1** To determine proper siting of the permanent upstream eelway(s), Topsham Hydro will conduct visual monitoring surveys in conjunction with temporary upstream eel ramp deployments with collection traps for the first two full passage seasons after license issuance. Based on the visual survey and trapping results, Topsham Hydro will, in consultation with the Department and other resource agencies, determine the optimal location for siting the permanent upstream eelway(s).

**2.2.1.2** Topsham Hydro will deploy temporary upstream eel ramps from June 1 to September 30 in areas where flowing water may attract migrating eels. Topsham Hydro will deploy temporary eel ramps on the bedrock outcrop located on the right bank (as proposed in the final license application) and near the exit of the downstream bypass. Additional locations will be decided in consultation with the Department. Based on results of the surveys, Topsham Hydro will, in consultation with the USFWS and other resource agencies, determine optimal locations for siting permanent upstream eelways.

### **2.2.2 Permanent Upstream Eel Passage**

Topsham Hydro will complete final design, permitting, and construction of the permanent upstream eelway during the third year of the New License, and the permanent upstream eelway will be operational no later than June 1 of the fourth full passage season (June 1 to September 30) after license issuance. Topsham Hydro will maintain temporary upstream eel passage until permanent measures are implemented. The defined upstream passage period may be expanded or adjusted in the event the Department determines and/or demonstrates, based on scientific data that is applicable to the Project from rivers in the Department's North Atlantic Appalachian Region, that a modification to the upstream passage period is necessary to ensure the safe, timely, and effective passage of eels.

### **2.2.3 Upstream Eel Passage Effectiveness Testing**

Topsham Hydro will conduct upstream American eel passage effectiveness testing and evaluation for two consecutive years, in consultation with the Department. The study will consist of determining attraction efficiency to the eelway and passage efficiency of the eelway once an eel enters the structure.

ACKNOWLEDGED AND AGREED TO BY

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



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Thomas Uncher, Vice President



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Nathan Stevens, Director, Asset Management

January 28, 2022

ACKNOWLEDGED AND AGREED TO BY

United States Fish and Wildlife Service

BY:

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CROSS**

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Amanda Cross, Project Leader, Maine Field Office

February 3, 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 24th day of February, 2022.

/s/ Christopher Todd  
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