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BANGOR-PACIFIC HYDRO ASSOCIATES

A JOINT VENTURE

P.O. Box 276

Milford, ME 04461

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FEDERAL ENERGY
REGULATORY COMMISSION

June 23, 2004

Honorable Magalie R. Salas
Secretary
Federal Energy Regulatory Commission
888 First Street, N.E., Room 1A
Washington, D.C. 20426

**Re: Application For Amendment Of License
West Enfield Hydroelectric Project No. 2600 -- 056**

Dear Secretary Salas:

Enclosed for filing in the above-referenced proceeding are the original and eight copies of Bangor Pacific Hydro Associates ("BPHA") Application For Amendment Of License ("Application") for BPHA's West Enfield Hydroelectric Project No. 2600 ("Project"), along with an original and two copies of a separate volume containing the Critical Energy Infrastructure Information ("CEII") that had been included in the Application but has been removed to comply with CEII requirements. This application is being submitted in accordance with Section IV of the Lower Penobscot River Multiparty Settlement Agreement dated June 2004 ("MPA") that is being filed separately today in this and other project dockets.

The Project is a major water power project over 5 MW. The Application was prepared in accordance with Section 4.201 of the Commission's regulations and includes Exhibits A, B, C, D, E, F, and G. A draft of this Application was distributed to agencies and stakeholders on February 17, 2004, and this Application addresses all comments received. In recognition that this Application is consistent with the MPA, BPHA requested that the consulted parties waive the requirement (to the extent applicable) that BPHA follow the three-stage consultation process (18 C.F.R. § 4.38) for this Application, and the consulted parties provided such waivers. See Appendix ES-A of the Application.

CEII/E-Library

Honorable Magalie R. Salas
June 23, 2004
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Communications

The names and addresses of the persons to whom all notices and communications with respect to this proceeding should be sent, and who should be placed on the Commission's official service list for this proceeding, are as follows:

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Water Quality Certification

BPHA has applied to the Maine Department of Environmental Protection ("MDEP") for amendment of its § 401 Clean Water Act Water Quality Certification ("WQC") for the Project. See Appendix E-A of the Application for a date-stamped copy of BPHA's letter transmitting the application for amendment of its WQC for the Project to the MDEP showing that the application was received by MDEP on June 14, 2004.

CEII

The changes to the Project proposed in the Application required revisions to two of the Project's Exhibit F drawings. The changes proposed in the Application also required the preparation of an Engineering Assessment and a Hydrology Memorandum. Since the revised Exhibit F drawings, Engineering Assessment, and Hydrology Memorandum constitute CEII under 18 C.F.R. § 388.112, they are exempt from the mandatory public disclosure requirements of the Freedom of Information Act and should be withheld from public disclosure, and BPHA requests privileged treatment for those materials.

Consistent with the Commission's "Notice of Filing Instructions" for CEII (68 Fed. Reg. 49475 (August 18, 2003)) and 18 C.F.R. § 388.112(b), BPHA is submitting the revised Exhibit F drawings, Engineering Assessment, and Hydrology Memorandum in a separate volume marked "Contains Critical Energy Infrastructure Information - Do Not Release." As noted previously, an original and two copies of this separate volume are being provided.

Honorable Magalie R. Salas
June 23, 2004
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Thank you for your attention to this matter. Please contact me at (207) 827-5354 with any questions concerning this Application.

Sincerely,

A handwritten signature in black ink, appearing to read "Scott D. Hall", written over the word "Sincerely,".

Scott D. Hall

cc (w/o CEII volume): Ed Lee, FERC
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**APPLICATION FOR AMENDMENT OF
LICENSE
WEST ENFIELD HYDROELECTRIC PROJECT
FERC PROJECT NO. 2600**

**BANGOR-PACIFIC HYDRO ASSOCIATES
Milford, Maine**

JUNE 2004



APPLICATION FOR AMENDMENT OF LICENSE

WEST ENFIELD HYDROELECTRIC PROJECT

FERC PROJECT NO. 2600

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APPLICATION FOR AMENDMENT OF LICENSE

**WEST ENFIELD HYDROELECTRIC PROJECT
FERC PROJECT NO. 2600**

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APPLICATION FOR AMENDMENT OF LICENSE

**WEST ENFIELD HYDROELECTRIC PROJECT
FERC PROJECT NO. 2600**

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Acronym List

BHE	Bangor Hydro Electric Company
BPHA	Bangor-Pacific Hydro Associates
CEII	Critical Energy Infrastructure Information
cfs	Cubic feet per second
Commission	Federal Energy Regulatory Commission
CMF	Contingent Mitigation Fund
DOI	Department of the Interior
FEIS	Final Environmental Impact Statement
FERC	Federal Energy Regulatory Commission
Hp	Horsepower
IFIM	Instream Flow Incremental Methodology
kW	Kilowatt
MDEP	Maine Department of Environmental Protection
MDIFW	Maine Department of Inland Fisheries and Wildlife
MHPC	Maine Historic Preservation Commission
MPA	Lower Penobscot River Multiparty Settlement Agreement
msl	Mean sea level
MW	Megawatt
MWh	Megawatt-hour
NGVD	National Geodetic Vertical Datum
PIN	Penobscot Indian Nation
PMF	Probable Maximum Flood
PPL Maine	PPL Maine, LLC
SHPO	State Historic Preservation Officer
THPO	Tribal Historic Preservation Officer
WQC	Water Quality Certification
WUA	Weighted Usable Area

Initial Statement

BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

APPLICATION FOR AMENDMENT OF LICENSE

- (1) Bangor-Pacific Hydro Associates (BPHA) applies to the Federal Energy Regulatory Commission (FERC) for an amendment of license for the West Enfield Hydroelectric Project (L.P. No. 2600), a major water power project over 5MW, as described in the attached exhibits.

- (2) The exact name, business address and telephone number of the applicant are:

Bangor-Pacific Hydro Associates
c/o PPL Maine, L.L.C.
Davenport Street, P.O. Box 276
Milford, ME 04461
207-827-2247

The exact name, address, and telephone number of each person authorized to act as agent for the applicant in this application:

Scott D. Hall
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c/o PPL Maine, LLC
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Milford, ME 04461
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202-371-5766

- (3) The applicant is a domestic general partnership licensee for the water power project, designated as Project No. 2600 in the records of FERC. The current license was issued on June 26, 1984.
- (4) The amendments of license proposed herein are necessary to implement provisions of the Lower Penobscot River Multiparty Settlement Agreement ("MPA").
- (5)(i) The statutory or regulatory requirements of the state(s) in which the Project would be located that affect the Project as proposed with respect to bed and banks and the appropriation, diversion, and use of water for power purposes, and with respect to the right to engage in the business of developing, transmitting, and distributing power and in any other business necessary to accomplish the purposes of the license under the Federal Power Act, are:

- (a) The Mill Act - 38 M.R.S.A. § 651 et seq.

The Mill Act was first enacted by the Maine Legislature as Chapter 45 of the Public Laws of 1821. To a great extent, it was patterned after the Massachusetts Mill Act enacted there in 1714.

The rights and liabilities of riparian landowners with respect to the erection and maintenance on their own land of water mills and dams upon and across any non-navigable stream are set forth in 38 M.R.S.A. §651 et seq. A complete history of this legislation appears in the case of Brown v DeNormandie, 123 Maine 539 (1924).

Section 651 of the Mill Act provides:

Any man may on his own land erect and maintain a watermill and dams to raise water for working it, upon and across any stream not navigable; or, for the purpose of propelling mills or machinery, may cut a canal and erect walls and embankments upon his own land, not exceeding one mile in length, and thereby divert from its natural channel the water of any stream not navigable, upon the terms and conditions and subject to the regulations hereinafter expressed.

The Mill Act also contains extensive provisions for the method by which compensation for damages arising from flowage caused by a mill dam are to be determined and recovered.

It is settled law in Maine that a hydroelectric generating plant is a water mill within the meaning of the Mill Act, Gillmore v Central Maine Power, 127 Maine 522 (1929); that the Mill Act is constitutional, Brown v DeNormandie, 123 Maine 535 (1924); and that the part of a stream above tidewater is not navigable under the Mill Act, Opinion of Justices, 118 Maine 503 (1919) and Veazie v Dwinel, 50 Maine 470 (1862).

(b) P.L. 92-500 Section 401 as amended - Water Quality Certification. The Maine Department of Environmental Protection has been delegated authority to issue Water Quality Certification under Section 401 of the Clean Water Act.

(5)(ii) The steps which the applicant has taken or plans to take to comply with each of the laws cited above are:

(a) Under the Mill Act, no approval of any state agency is required to continue to use water for the West Enfield Hydroelectric Project.

(b) BPHA has applied to the Maine Department of Environmental Protection for amendment of the Water Quality Certification (WQC) for the project. Refer to

Initial Statement

Exhibit E, Appendix E-A of this Amendment Application for documentation of the WQC Application.

(6) The following exhibits are filed within and are hereby made a part of this application:

Exhibit A - Project Descriptions

Exhibit B - Operation and Resource Utilization

Exhibit C - Construction History and Proposed Schedule

Exhibit D - Statement of Costs and Financing

Exhibit E - Environmental Report

Exhibit F - Project Drawings

Exhibit G - Project Maps

Executive Summary

This application is being submitted in accordance with the provisions of Section IV of the MPA. The MPA is a comprehensive settlement agreement among the representative of the licensee (PPL Maine), the Penobscot Indian Nation, the U.S. Department of the Interior, various agencies of the State of Maine, and a number of conservation groups. As discussed in greater detail in the Explanatory Statement filed concurrently herewith in this and other project dockets, implementation of the MPA and the companion "Comprehensive Settlement Agreement Between the Penobscot Indian Nation, PPL Maine, LLC, and the Bureau of Indian Affairs of the Department of the Interior" (PIN Agreement) presents the opportunity to resolve all fish passage, energy generation, and Tribal issues associated with PPL Maine's Penobscot River Basin hydroelectric projects and therefore is clearly in the public interest.

Section IV of the MPA requires the concurrent filing with the Commission of a number of requests and applications, including this application. These various requests and applications (Phase 1 Requests), if granted by the Commission without alteration or change that materially prejudices any party to the MPA, will permit the parties to proceed to the subsequent phases of the MPA and thus realize the full public interest benefits contemplated by the MPA. Because of the various rights and interests implicated by the Phase 1 Requests, all of those requests are interrelated and mutually dependent. Consequently, and as discussed in more detail in the above-referenced Explanatory Statement, if the Commission does not grant this application and all the other Phase 1 Requests without alteration or change that materially prejudices any party to the MPA, all of the Phase 1 Requests, including this application, will be withdrawn pursuant to 18 C.F.R. § 385.216.

A draft of this Application was distributed on February 17, 2004 to agencies and stakeholders. Comments received have been addressed in this final Application, and copies of all correspondence are provided in Appendix ES-A of this Executive Summary. In recognition that this Application is consistent with, and is the initial step towards implementation of the MPA, all agencies and stakeholders consulted support this Application and the accompanying request for a waiver of the three-stage consultation process (Appendix ES-A).

Description of Requested Modifications

Headpond increase – In order to enhance generation output, BPHA proposes to increase the normal impoundment level at the West Enfield Hydroelectric Project by one foot, from 155.1 feet mean sea level to 156.1 feet mean sea level. This will result in an increase of approximately 5,800 MWh of additional generation annually.

This increase in impoundment elevation will be accomplished by simply adding one foot of height to the existing flashboard system. Specifically, when the flashboard system is replaced after approval of the amendment request BPHA will utilize boards that are one-foot taller than the existing six-foot-high boards currently erected on top of the dam's permanent crest. The modified flashboard system will be designed to fail with one foot of overtopping. The present flashboard system is designed to fail with 1.5 feet of overtopping. The flood flow discharge capacity will not be reduced since flood flows occur after the boards have already failed. Additionally, the flashboards will fail at a lower flow.

Contingent Mitigation – In order to fully mitigate for any potential habitat impacts associated with the requested modification and modifications at other projects, parties to the MPA developed a Contingent Mitigation Fund (CMF) (Attachment B to the MPA), whereby it was agreed that the impacts will be fully mitigated by removal of the Veazie (FERC No. 2403) and Great Works (FERC No. 2312) dams. If those dams are not removed, then the MPA provides for the establishment of the CMF and requires the licensee to make monetary payments to the CMF in certain circumstances, as specified in Attachment B to the MPA, to fully mitigate for the habitat impacts. BPHA proposed to add the article set forth below requiring BPHA to comply with Attachment B.

PIN Agreement – In order to implement applicable provisions of the PIN Agreement as they relate to the West Enfield Project, BPHA requests that the Commission include the various new license articles set forth below (a revised Article 41 and three new articles).

Executive Summary

Fish Passage – In order to implement the MPA, BPHA agrees to the inclusion of an article for purposes of incorporation into the license those requirements associated with upstream American eel passage that are consistent with Attachment A of the MPA, as set forth below.

Executive Summary***Specific License Article Amendments and Additions***

To implement these modifications, BPHA requests that the Commission make the following changes to the Project's June 26, 1984 Order Issuing License, as amended by the July 15, 1986 Order Amending License, the February 23, 1989 Order Approving Revised Exhibit G, and the September 19, 1989 Order Approving As-Built Exhibits:

Paragraph (C)(2): Exhibit F – The following revised Exhibit F drawings should be approved and made part of this license:

Exhibit	FERC No.	Showing	Superceding
F Sheet 4	2600-33	Elevation and Powerhouse Section	2600-30
F Sheet 6	2600-35	Ungated Spillway Section	2600-32

Paragraph (C)(2): Change the statement: "The revised Exhibit A filed on June 30, 1989, is approved and made part of this license, superceding the Exhibit A of the order issuing license of June 26, 1984" to insert after 1989: "as modified by the amended Exhibit A filed June 2004."

Paragraph (C)(2)(a): Change the reference therein from "surmounted by 6-foot-high flashboards" to "surmounted by 7-foot-high flashboards".

Paragraph (C)(2)(b): Change the reference therein from "11,250 acre-feet" to "11,480 acre-feet"; and change the reference therein from "normal surface elevation of 155.1 feet mean sea level" to "normal surface elevation of 156.1 feet mean sea level".

Article 41: Delete the existing Article 41 in its entirety, and add the following new Article 41 in lieu thereof (for PIN Agreement):

Article 41. The licensee, within 30 days of the date the withdrawal of all the requests for rehearing of the Commission's April 20, 1998 orders in Project Nos. 10981, 2403, 2534, 2710, and 2712 becomes effective and final, shall cause the May 16, 1986 Agreement between Bangor Hydro-Electric Company, Pacific Energy Lighting

Executive Summary

Systems, and the Penobscot Indian Nation (PIN) to be amended by deleting the second sentence of Section 2(a)(i) thereof and by revising the annual fee formula contained in the first sentence thereof from "an annual fee in an amount equal to \$0.00075 for each kilowatt-hour of electric energy production from the West Enfield Project" to "an annual fee in an amount equal to \$0.001 (adjusted annually based on the Consumer Price Index for that current year beginning on the one-year anniversary of the date the \$0.001 amount first goes into effect) for each kilowatt-hour of electric energy production from the West Enfield Project"; *provided, however*, that such revision in the annual fee formula shall not become effective unless and until (a) PIN has revised (or reissued) in a manner satisfactory to the licensee and appropriately recorded in county land records PIN's March 8, 1988 easement to the licensee so that the licensee is granted the right to flood and flow with water the islands and lands described in such easement in connection with licensee's construction, ownership, and operation of the project dam with flashboards with a normal maximum water surface elevation of 156.1 feet M.S.L. and (b) the United States Department of the Interior has issued all approvals of the revision (or reissuance) of the easement required by law and such approvals are final.

Add the following Articles (for PIN Agreement):

Article ____. To ensure the protection of Penobscot Indian Nation (PIN) properties and resources of traditional, religious and cultural significance, within 60 days of the date the withdrawal of all the requests for rehearing of the Commission's April 20, 1998 orders in Project Nos. 10981, 2403, 2534, 2710, and 2712 becomes effective and final the licensee shall contribute \$75,000 to PIN for use by PIN for curational activities associated with such properties and resources and thereafter shall annually contribute an additional \$60,000 to PIN for use by PIN for such purposes for a four-year period beginning on the one-year anniversary date of the initial \$75,000 contribution.

Article ____. (a) The licensee, within 90 days of the date the withdrawal of all the requests for rehearing of the Commission's April 20, 1998 orders in Project Nos. 10981,

Executive Summary

2403, 2534, 2710, and 2712 becomes effective and final, shall affect the transfer to the Penobscot Indian Nation (PIN) clear title to the parcels of land located in the Town of Bradley, Maine, consisting of approximately 46.8 acres that are identified on the Bradley Tax Map as Map 25, Lot 7, Map 26, Lot 20-1, and Map 26, Lot 15.

(b) The licensee, within 90 days of the date the withdrawal of all the requests for rehearing of the Commission's April 20, 1998 orders in Project Nos. 10981, 2403, 2534, 2710, and 2712 becomes effective and final, shall contribute \$25,000 to PIN for use by PIN in acquiring additional parcels of land along the Penobscot River and thereafter shall annually contribute an additional \$25,000 (adjusted annually based on the Consumer Price Index for that current year) for use by PIN for such purpose for a two-year period beginning on the one-year anniversary date of the initial \$25,000 contribution.

Article . To the extent not otherwise required in any article of this license, the licensee shall include the Penobscot Indian Nation (PIN) and the United States Bureau of Indian Affairs (BIA) in all consultations associated with all post-licensing studies, reports or activities related to archaeological, cultural and historic resources, land and water resources, fisheries and wildlife, navigation, and recreation in the project area. The licensee shall provide any related draft reports to the PIN Department of Natural Resources and BIA and provide a minimum of 30 days for their comments and recommendations before filing them with the Commission. The licensee shall further address and incorporate all such comments and recommendations in any final reports filed with the Commission.

Add the following Article (for MPA):

Article . The licensee shall implement the requirements of Attachment B to the Lower Penobscot River Multiparty Settlement Agreement, dated June 2004 (Contingent Mitigation Fund), as it pertains to the West Enfield Hydroelectric Project.

Insert new Article 46 (for fish passage under MPA):

Article 46: The licensee shall install and operate permanent upstream fish passage facilities for American eel at the West Enfield Project. Fishways shall be maintained and operated to maximize fish passage effectiveness throughout fish migration period(s) as defined below. The upstream migration period shall be defined April 1 to November 30 for American eel. The licensee shall keep the fishways in proper order and shall keep fishway areas clear of trash, logs, and material that would hinder passage. Anticipated maintenance shall be performed in sufficient time before a migratory period such that fishways can be tested and inspected and will operate effectively prior to and during the migratory periods.

Fishway design, maintenance and operational plans (including schedules) for all fish passage facilities shall be developed by the licensee in consultation and cooperation with the U.S. Fish and Wildlife Service (FWS), the Penobscot Indian Nation (PIN), and other fishery agencies (including the Maine Department of Inland Fisheries and Wildlife, Maine Department of Marine Resources (MDMR), and NOAA Fisheries). Functional design and final design plans for all fishways shall be developed in consultation and cooperation with the FWS, Penobscot Nation, and other fishery agencies.

During the first upstream eel migration season after the date of the Commission Order inserting this replacement article into the license, the licensee shall assess the appropriate location for the siting of a new upstream eel fishway at the project, in consultation with the FWS, MDMR, and PIN, and these entities' approval of a proposed location, file, for Commission approval, a plan for the fishway. This filing shall include but not be limited to: (1) the location and design specifications of the passage facilities; (2) a schedule for installing the facilities and completing initial testing prior to the third upstream migration season following the effective date of the Lower Penobscot River Multiparty Settlement Agreement; and (3) procedures for operating and maintaining the facilities.

Executive Summary

The licensee shall include with the plan documentation of consultation, copies of agency and PIN comments and recommendations on the completed plan after it has been prepared and provided to the agencies, and specific descriptions of how the agencies' and PIN's comments and recommendations are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies and PIN to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the proposed facilities and schedule. No construction of upstream fish passage facilities shall begin until the Licensee is notified by the Commission that the plan is approved. Upon Commission approval, the licensee shall implement the proposal, including any changes required by the Commission.

Executive Summary

APPENDIX ES-A
CONSULTATION DOCUMENTATION

APPENDIX ES-A

CONSULTATION DOCUMENTATION

WEST ENFIELD HYDROELECTRIC PROJECT SUMMARY RECORD OF CORRESPONDENCE

Date	Document	Subject
January 26, 2004	Letter from Dana Murch (MDEP) to Scott Hall (PPL Maine)	Phase I Energy Enhancements Lower Penobscot River Conceptual Agreement
February 4, 2004	Electronic mail from Clem Fay (PIN) to Scott Hall (PPL Maine)	Phase I Energy Enhancements Bass Impacts
February 17, 2004	Memorandum from Scott Hall (PPL Maine) to Distribution List	Distribution of Draft Applications for Orono, Stillwater, West Enfield, Medway and Milford
February 25, 2004	Memorandum from Scott Hall (PPL Maine) to Distribution List	Distribution of Draft Application for Veazie
March 3, 2004	Electronic mail from Andrew Tittler (DOI) to Scott Hall (PPL Maine)	Draft Application Comments
March 3, 2004	Electronic mail from Gordon Russell (USFWS) to Scott Hall (PPL Maine)	Draft Application Comments
March 10, 2004	Letter from Patrick Kelliher (MASC) to Scott Hall (PPL Maine)	Draft Application Comments
March 12, 2004	Letter from Dana Murch (MDEP) to Scott Hall (PPL Maine)	Draft Application Comments
March 12, 2004	Letter from Patricia Kurkul (NMFS) to Scott Hall (PPL Maine)	Draft Application Comments
March 17, 2004	Electronic mail from Clem Fay (PIN) to Scott Hall (PPL Maine)	Draft Application Technical Comments; revised bass impact statement
March 17, 2004	Letter from Betsy Elder (MSPO) to Scott Hall (PPL Maine)	Draft Application Comments
March 17, 2004	Telephone Discussion Notes – Clem Fay (PIN) and Scott Hall (PPL Maine)	Draft Application Comments
March 15 & March 25, 2004	Letters from Earle Shettleworth (MHPC/SHPO) to Scott Hall (PPL Maine)	Draft Application Comments
March 23, 2004	Letter from Andrew Raddant (USDOJ) to Scott Hall (PPL Maine)	Draft Application Comments
May 31, 2004	Letter from Ronald Kreisman (Attorney for NGOs) to Scott Hall (PPL Maine)	Draft Application Comments
June 2, 2004	Letter from John Banks (PIN) to Scott Hall (PPL Maine)	Draft Application Comments
June 10, 2004	Telephone Discussion Notes - Louis Sidell (MSPO NFIP) and Maureen Winters (DTA)	Issues related to headpond level changes at West Enfield, Medway, and Stillwater Projects



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JOHN ELIAS BALDACCI
GOVERNOR

DAWN R. GALLAGHER
COMMISSIONER

January 26, 2004

Scott D. Hall
Manager Environmental Services
PPL Maine LLC
PO Box 276
Milford, ME 04461-0276

RE: Phase I Energy Enhancements
Lower Penobscot River Conceptual Agreement

Dear Scott:

I have now reviewed the water quality impacts of the Phase I energy enhancements that are included in the Lower Penobscot River Conceptual Agreement with our technical staff and have the following to report.

The Phase I energy enhancements included in the Conceptual Agreement consist of (1) increasing headpond elevations by 1 foot at the Medway, Stillwater, and West Enfield Projects and (2) redeveloping the currently inoperable Orono Project.

The DEP has recently collected data to calibrate and verify a water quality model for the Penobscot River. The model run at worst case conditions of 7-day 10-year low flow, high water temperatures, and point sources at licensed loads predicts that minimum Class B dissolved oxygen criteria will not be met in about 51 river miles. In addition, the model predicts that algae blooms are expected to occur in about 25 river miles.

The DEP Penobscot River model has now been used to predict the changes in dissolved oxygen and algae levels expected to result from the Phase I energy enhancements.

In reviewing the water quality impacts of the Phase I energy enhancements, DEP assumed the following conditions:

1. Stillwater and Orono Projects. Changes in water levels and generation on the Stillwater River will not measurably affect water quality conditions on the main stem Penobscot River, due to the small flow on the Stillwater relative to that on the Penobscot.

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Letter to Scott D. Hall

January 26, 2004

Page 2

2. Medway Project. The existing headpond has a surface area of 120 acres and extends upstream about 1.8 miles to a point about 200 yards below the East Millinocket Dam, and the proposed 1-foot headpond increase would increase the surface area of the project impoundment by about 5 acres.
3. West Enfield Project. The existing headpond has a surface area of 1125 acres and extends upstream about 6 miles to Mohawk Rapids, to a point just upstream of Mohawk Island, and the proposed 1-foot headpond increase would increase the surface area of the project impoundment (including the Merrill Brook "runaround") by about 23 acres.

Based on this review, the DEP has concluded that none of the Phase I energy enhancements, either singly or in combination, will have any measurable impact on water quality. Our technical analysis (memo dated January 20, 2004 from Paul Mitnik to Dana Murch) is attached.

Please contact me if you have any further questions regarding this analysis.

Sincerely,



Dana Paul Murch
Dams & Hydro Supervisor

cc: Dawn Gallagher, Commissioner, DEP
George Lapointe, Commissioner, DMR
Deb Garrett, DEP
Andy Fisk, DEP
Mark Margerum, DEP
Paul Mitnik, DEP
Jay Clement, COE
John Banks, PIN
Gordon Russell, USF&WS
Ron Kreisman, Esq.
Todd Burrowes, SPO
Steve Timpano, IF&W
Laura Rose Day, NRCM
John Burrows, ASF
Pat Keliher, ASC
Jeff Reardon, TU

January 20, 2004

To: Dana Murch

From: Paul Mitnik, P.E.

Subject: Penobscot Restoration Project

Expected Water Quality in Rockabema and West Enfield Impoundments

As you have requested, I have investigated the expected change in water quality assuming both the Rockabema and West Enfield impoundment headpond levels are increased by an elevation of one foot. A water quality model, that has been calibrated and verified with data collected in 1997 and 2001, was used to predicted the expected changes in dissolved oxygen and algae levels (measured as chlorophyll-a). The model is explained in detail in a draft DEP report (Penobscot River Modeling Report, April 2003) that can be downloaded from DEP's website.

Compliance of class C dissolved oxygen criteria in the Rockabema impoundment is currently not an issue. However non-compliance of minimum class B criteria is an issue in the West Enfield impoundment. The occurrence of algae blooms is a greater issue in the Rockabema impoundment than the West Enfield impoundment.

Due to the increased time of travel that will occur with the larger impoundments, it is possible that lower dissolved oxygen and higher chlorophyll-a could result. Adjustments were made to the hydraulic component of the model to account for the increased volume and depth and decreased velocity. Since the estimated change in impoundment surface area is small in both cases, it was assumed that the river width should not change.

The model predicts that no lowering of dissolved oxygen levels should occur in the Rockabema impoundment. The maximum lowering of dissolved oxygen that should occur in the West Enfield impoundment is 0.1 ppm. This is within the measurement error of dissolved oxygen. The maximum increase in chlorophyll-a predicted is 0.01 ppb for Rockabema and 0.25 ppb for West Enfield. In either case, the expected change in chlorophyll-a is negligible.

Penobscot River Model**Existing Hydraulic Conditions**

Model Reach	V Coef	V exp	D coef	D Exp	7Q10 Flow cfs	Vel ft	Depth ft	Width ft
8	0.0014	0.8	2.65	0.16	2227	0.667	9.10	367
18	0.001	0.8	2.78	0.1	2833	0.578	6.16	796
19	0.00054	0.8	4.44	0.1	2835	0.312	9.83	924

New Hydraulic Conditions

(+1' at Rockabema and West Enfield Impoundments)

Model Reach	7Q10 Flow cfs	Depth ft	Width ft	Area ft ²	Vel ft	New V Coef	New D Coef
8	2227	10.1	367	3706	0.601	0.00126	2.94
18	2833	7.16	796	5703	0.497	0.000860	3.23
19	2835	10.83	924	10002	0.283	0.00049	4.89

Model Reach 8 is the Rockabema Impoundment. Reaches 18 and 19 are the West Enfield Impoundment.

Notes: The increase in impoundment surface area from a 1 foot increase in the headpond elevation is expected to change from 120 to 125 acres and 1125 to 1148 acres respectively for Rockabema and West Enfield. Since the difference is very small, a constant width was assumed.

Subject: FW: Phase 1 Bass Habitat/Pop "Impacts"



Hall Bass Impact
Text Phase 1....

From: Clem Fay [mailto:pinfish@penobscotnation.org]
Sent: Wednesday, February 04, 2004 4:13 PM
To: Hall, Scott D
Cc: Jeff Reardon (TU); Jeff Reardon (home)
Subject: Phase 1 Bass Habitat/Pop "Impacts"

Scott:

As you requested, attached is a short summary of my assessment of the "impacts" of Phase 1 energy enhancements at SW, WE, and MW on bass habitat, pops, and fishing in those impoundments. Please let me know if you needed something different. Also, feel free to cut and paste, or paraphrase, as needed for your purposes, as long as such modifications do not change the core substance of what is there.

Clem.

Clem Fay

Fisheries Manager

Penobscot Nation DNR

6 River Road, Indian Island

Old Town, ME 04468

PH: 207-827-7776, ext 7362

PH: 207-817-7362

FAX: 207-827-1137

email: pinfish@penobscotnation.org

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**Projected Impacts of Penobscot River Restoration Project
Phase I Energy Enhancements (Impoundment Elevation Increases)
at the Stillwater, West Enfield, and Medway Projects
(by C. Fay, Fisheries Manager, Penobscot Indian Nation DNR)
February 4, 2004**

Recognizing that, except for spawning activity, smallmouth bass in the Penobscot watershed use impounded habitat as readily as free-flowing reaches, then the increased impoundment elevations associated with the Penobscot River Restoration Project Phase I energy enhancements at Stillwater (SW), West Enfield (WE), and Medway (MW) projects (1 foot at each location) are judged to be at worst neutral, and at best, a net positive, with respect to general bass habitat quantity and quality. To the extent that bass spawning activity occurs or would occur in these impoundments (most spawning in the main stem Penobscot River occurs in free-flowing reaches), they should simply be shifted shoreward proportional to the depth increase at the location in question.

As far as angler access to bass fisheries, and navigational safety issues, in these impoundments, again, the Phase I energy enhancements should result in either neutral or net positive impacts at all three projects. Specifically at West Enfield, and recognizing that in some cases, new navigational hazards will be formed where there was none previously, the one foot increase should overall reduce the potential for larger power boats/outboards to hit one of the numerous submerged log and rock cribs that are scattered throughout the lowest river mile of the impoundment, and that currently rise to within 0.5-3.0 feet of the normal water surface elevation. This is particularly true for those cribs located well above the dam, which are generally closer to the surface, harder to distinguish, and where several instances of damaged outboard motor lower units have been observed in the recent past.

Finally, and again specific to West Enfield, the increased impoundment elevation should result in improvements in gross habitat quality for bass in the so-called "Merrill Brook Runaround" segment of the project. Presently, that segment of the project area becomes fairly stagnant in the summer due to diminished inflow over the upstream berm that funnels water from the main river into the runaround.

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MEMORANDUM

TO: DISTRIBUTION

FROM: SCOTT D. HALL, PPL MAINE, LLC 

DATE: 17 FEBRUARY 2004

SUBJECT: DRAFT AMENDMENT APPLICATIONS
REQUEST FOR COMMENTS AND LETTERS OF SUPPORT

Pursuant to the terms of the Lower Penobscot River Conceptual Agreement (October 2003) and the anticipated requirements of the Lower Penobscot River Multiparty Settlement Agreement (MPA), expected to be finalized in April 2004, please find the enclosed draft applications for amendment requests associated with PPL Maine, LLC's Stillwater, Medway, and Milford Projects as well as the West Enfield Project, along with the draft application for new license for Orono. Please note that we have not included a draft of the amendment application for Veazie since it will be very short and limited to implementation of the fish passage provisions required by the MPA, thereby requiring no additional supporting information.

As you will remember, these draft applications are intended to outline and support the requests we will make to the Federal Energy Regulatory Commission (Commission) for the purpose of implementing the MPA. In addition, we will be providing the final applications, as well as specific requests to modify the respective water quality certifications, to the Maine Department of Environmental Protection (MDEP) in a separate filing, with copies to the appropriate municipalities.

Please review the enclosed materials and forward any questions/comments you may have as soon as possible. In the event anyone deems it necessary to meet and discuss any portion of these applications please contact me by the end of February and I will try to set up a meeting of interested parties the week of 8 March 2004.

Please remember that, in accordance with Section IV of the MPA, all parties are required to provide a letter of support, to be filed with the Commission (and the MDEP), so please don't hesitate to contact me with any questions, or if you need additional information to enable you to provide such a letter of support within 30 days. In addition, please include in your letter of support a specific statement conveying your consent to our request to waive consultation requirements normally associated with such applications [18 CFR Sec. 4.38(a)(5) and Sec. 16.8(e)(1)].

As we have discussed, our schedule allows for a 30-day review period by all parties to the MPA, and upon receiving your letters of support, and comment where applicable, we will complete the final applications and file them with the Commission and MDEP in early April. Thank you for your prompt attention to this matter.

17 FEBRUARY 2004

**SUBJECT: DRAFT AMENDMENT APPLICATIONS
REQUEST FOR COMMENTS AND LETTERS OF SUPPORT**

Dana Murch (2 copies)
Maine Department of
Environmental Protection
State House Station 17
Augusta, ME 04333

Steven Timpano
Maine Department of Inland
Fisheries & Wildlife
41 State House Station
Augusta, ME 04333-0041

Clem Fay
Penobscot Indian Nation
6 River Road, Indian Island
Old Town, ME 04468

Mike Smith
Maine Department of Inland
Fisheries & Wildlife
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Enfield, ME 04493

Betsy Elder, Hydropower Coordinator
Maine State Planning Office
State House Station 38
Augusta, ME 04333

Ron Kreisman
25 Page Street
Hallowell, ME 04347

Todd Burrows
Maine State Planning Office
State House Station 38
Augusta, ME 04333

Kevin Mendick
National Park Service
North Atlantic Region
15 State Street
Boston, MA 02109

Bud Newell
Hydropower Coordinator
Bureau of Parks and Recreation
Maine Department of Conservation
22 State House Station
Augusta, ME 04333

Earle G. Shettleworth, Jr., Director
Maine Historic Preservation
Commission
Capital Street
State House Station 65
Augusta, ME 04333

Norm Dube
Maine Atlantic Salmon Authority
650 State Street
Bangor, ME 04401-5654

Arthur Spiess
Maine Historic Preservation
Commission
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State House Station 65
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Pat Kelliher
Executive Director
Maine Atlantic Salmon Authority
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323 State Street
Augusta, ME 04330

Barry Dana, Tribal Chief
Penobscot Indian Nation
6 River Road, Indian Island
Old Town, ME 04468

17 FEBRUARY 2004

**SUBJECT: DRAFT AMENDMENT APPLICATIONS
REQUEST FOR COMMENTS AND LETTERS OF SUPPORT**

John S. Banks
Penobscot Indian Nation
6 River Road, Indian Island
Old Town, ME 04468

Laura Rose-Day
Project Director
3 Wade Street
Augusta, ME 04330

Kim Owens
Department of Interior
Solicitor's Office
Division of Indian Affairs
1849 C Street NW
Mail Stop: 6456
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Gail Wippelhauser/Tom Squires
Maine Dept. Marine Resources
State House Station 21
Augusta, ME 04333-0021

Judith M Stolfo
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Office of the Solicitor
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George LaPointe
Commissioner
Maine Dept. Marine Resources
State House Station 21
Augusta, ME 04333-0021

Andrew Tittler
U.S. Department of Interior
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Gordon Russell
United States Fish & Wildlife Service
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Jeff Murphy (2 copies)
National Marine Fisheries Service
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MEMORANDUM

TO: DISTRIBUTION

FROM: SCOTT D. HALL, PPL MAINE, LLC SDH

DATE: 25 FEBRUARY 2004

SUBJECT: DRAFT AMENDMENT APPLICATION - VEAZIE
REQUEST FOR COMMENTS AND LETTERS OF SUPPORT

Pursuant to the terms of the Lower Penobscot River Conceptual Agreement (October 2003) and the anticipated requirements of the Lower Penobscot River Multiparty Settlement Agreement (MPA), expected to be finalized in April 2004, please find the enclosed draft applications for amendment requests associated with PPL Maine, LLC's Veazie Project.

While we did not include this draft application for Veazie in the previous transmittal (17 February 2004), we wanted to send this along now to ensure that you had all of the draft amendment applications so that you could reference each one in your letters of support as outlined below.

Again, this draft application is intended to outline and support the requests we will make to the Federal Energy Regulatory Commission (Commission) for the purpose of implementing the MPA. In addition, we will be providing the final application, as well as specific requests to modify the water quality certification, to the Maine Department of Environmental Protection (MDEP) in a separate filing, with copies to the appropriate municipalities.

Please review the enclosed materials and forward any questions/comments you may have as soon as possible. In the event anyone deems it necessary to meet and discuss any portion of these applications please contact me by the end of February and I will try to set up a meeting of interested parties the week of 8 March 2004.

Please remember that, in accordance with Section IV of the MPA, all parties are required to provide a letter of support, to be filed with the Commission (and the MDEP), so please don't hesitate to contact me with any questions, or if you need additional information to enable you to provide such a letter of support within 30 days. In addition, please include in your letter of support a specific statement conveying your consent to our request to waive consultation requirements normally associated with such applications [18 CFR Sec. 4.38(a)(5) and Sec. 16.8(e)(1)].

As we have discussed, our schedule allows for a 30-day review period by all parties to the MPA, and upon receiving your letters of support, and comment where applicable, we will complete the final applications and file them with the Commission and MDEP in early April. Thank you for your prompt attention to this matter.

25 FEBRUARY 2004

**SUBJECT: DRAFT AMENDMENT APPLICATIONS
REQUEST FOR COMMENTS AND LETTERS OF SUPPORT**

Dana Murch (2 copies)
Maine Department of
Environmental Protection
State House Station 17
Augusta, ME 04333

Steven Timpano
Maine Department of Inland
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41 State House Station
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Hydropower Coordinator
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Arthur Spiess
Maine Historic Preservation
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Executive Director
Maine Atlantic Salmon Authority
172 State House Station
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Barry Dana, Tribal Chief
Penobscot Indian Nation
6 River Road, Indian Island
Old Town, ME 04468

25 FEBRUARY 2004

**SUBJECT: DRAFT AMENDMENT APPLICATIONS
REQUEST FOR COMMENTS AND LETTERS OF SUPPORT**

John S. Banks
Penobscot Indian Nation
6 River Road, Indian Island
Old Town, ME 04468

Kim Owens
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Maine Dept. Marine Resources
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George LaPointe
Commissioner
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Charles Lynch
NOAA Fisheries
One Blackburn Drive
Gloucester, MA 01930

-----Original Message-----

From: Andrew Tittler [mailto:tittlers@rcn.com]
Sent: Wednesday, March 03, 2004 8:31 PM
To: Hall, Scott D; judithstolfo; jwhittaker@winston.com
Subject: comments on PPL filings

These are basically OK, with a couple of comments:

General: in your executive summary, you state that the Agreement "will resolve all fish passage, energy generation and tribal issues". It would be more accurate to say that it "presents the opportunity to resolve" all such issues. This is for two reasons - first, it emphasizes the next point, which is that the Commission must act in the right way to make this happen, and, second, because it may not resolve all issues with respect to Howland and Great works if they are not purchased - we may go right back into relicensing with no prejudice to anyone's position. The opportunity is certainly there if FERC does what it's supposed to and the dams are bought, but it's not a certainty.

Veazie-specific. You ask to set the timeframe of article 413 to "as ordered by the Commission." I would prefer to include language, as I suggested in my effort at our filing, pushing back this requirement until 5 years, 6 months from now, or 6 months after a decision not to remove if the option is exercised, as with the fish passage facilities. The delay makes sense, but your suggestion means we will have to badger the Commission for an order to get recreational facilities at all, which is the next best thing to giving up on them entirely, in my book. Also the language of the MSA states that this is to be delayed until after that decision point, not indefinitely.

I may discover more when I get back to this next week, but that's all I've spotted so far - Gordon, of course, has a better handle on the technical stuff than I do.

--

-Andrew Tittler
U.S. Department of the Interior
Northeast Regional Solicitor's Office
One Gateway Center, Suite 612
Newton, MA 02458

Phone: (617) 527 3400
Fax: (617) 527 6848

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-----Original Message-----

From: Gordon_Russell@fws.gov [mailto:Gordon_Russell@fws.gov]
Sent: Wednesday, March 03, 2004 1:46 PM
To: Hall, Scott D
Cc: pinfish@penobscotnation.org; Norm.Dube@state.me.us;
gail.wippelhauser@maine.gov; steve.timpano@state.me.us;
tittlers@rcn.com; j.stolfo@comcast.net; Larry_M_Miller@fws.gov
Subject: Comments on Penob. R. draft license amendment applications

Scott:

As we've indicated previously to you, DOI will be sending a single, short letter of concurrence and support for the proposed license amendment applications. It will be signed by our Regional Environmental Officer, Andy Raddant, who is in Boston.

However, there were a few specific items that caught me eye as I looked through the applications that I thought I'd pass on.

Medway:

p. E-6: you can delete the sentence on peregrine falcon - it was delisted in 1999.

p. E-9: you should say something like, "The existing upstream and downstream fish passage measures for eels will not be affected by the 1-ft headpond increase."

Stillwater:

p. E-9: last sentence in the paragraph on fish passage isn't quite accurate - Art. 407 of the license requires fish passage plan for upstream and downstream passage.

p. E-12: should say something like, "The proposed 1-ft. increase in headpond level and decrease in minimum bypass flow will not affect existing or proposed fish passage facilities or their operations."

West Enfield:

p. E-6: similar to last comment. Add sentence such as, "The 1-ft increase will not affect existing upstream and downstream fish passage facilities or their operations."

Milford:

p. ES-2: as we've discussed recently, Art. 405 (DO monitoring) would be modified, not deleted.

That's it!

Gordon

Gordon W. Russell, Supervisor
Maine Field Office
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Old Town, ME 04468
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Cellular: (207) 949-0561
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John E. Baldacci
Governor

**STATE OF MAINE
ATLANTIC SALMON COMMISSION**

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www.state.me.us/asa



Patrick C. Kaliher
Executive Director

March 10, 2004

Mr. Scott D. Hall
Manager, Environmental Services
PPL Maine, LLC
Davenport Street
P.O. Box 276
Milford, ME 04461-0276

RE: Draft Amendment Applications – Stillwater Hydroelectric Project (FERC No. 2712), Milford Hydroelectric Project (FERC No. 2534), West Enfield Hydroelectric Project (FERC No. 2600), and Medway Hydroelectric Project (FERC No. 2666)

Draft Application for New License – Orono Project (FERC No. 2710)

Dear Scott:

Under the terms of the October 2003 Lower Penobscot River Conceptual Agreement and with the anticipated requirements of the Lower Penobscot River Multiparty Settlement Agreement (MPA) expected to be finalized next month, PPL had submitted the above-referenced applications for comment. Maine Atlantic Salmon Commission (MASC) staff has reviewed the applications and offer the following comments.

Stillwater Project

PPL requests the following license modifications:

- Headpond increase of one foot,
- Minimum flow reductions of 40 cfs to 20 cfs in the west bypass channel and 155 cfs to 50 cfs in the east bypass channel,
- PPL agrees to modifications of various Stillwater Project License Articles for purposes of making fish passage requirements consistent with the Department of Interior (DOI) and National Marine Fisheries Service (NMFS) modified fishway prescriptions as specified in Attachment A of the MPA, and

- PPL is required to make monetary payments into a Contingent Mitigation Fund (CMF) as provided in Attachment B of the MPA to fully mitigate for habitat impacts in the event the Veazie (FERC No. 2403) and Great Works (FERC No. 2312) dams are not removed.

Milford Project

PPL requests the following license modifications:

- Inclusion of the Penobscot Indian Nation Agreement,
- PPL agrees to inclusion of appropriate article(s) into the Milford Project License for purposes of making fish passage requirements consistent with the DOI/NMFS modified fishway prescriptions as specified in Attachment A of the MPA, and
- PPL requests that Article 405 and Article 410 be deleted from the Milford License.

West Enfield Project

Bangor-Pacific Hydro Associates (BPHA) requests the following license modifications:

- Headpond increase of one foot,
- Inclusion of the Penobscot Indian Nation Agreement,
- BPHA agrees to inclusion of appropriate article(s) into the West Enfield Project License for purposes of making those requirements associated with upstream American eel passage consistent with Attachment A of the MPA, and
- BPHA is required to make monetary payments into a Contingent Mitigation Fund (CMF) as provided in Attachment B of the MPA to fully mitigate for habitat impacts in the event the Veazie (FERC No. 2403) and Great Works (FERC No. 2312) dams are not removed.

Medway Project

PPL requests the following license modifications:

- Headpond increase, and
- A requirement for PPL to make monetary payments into a Contingent Mitigation Fund (CMF) as provided in Attachment B of the MPA to fully mitigate for habitat impacts in the event the Veazie (FERC No. 2403) and Great Works (FERC No. 2312) dams are not removed.

Orono Project

PPL is proposing to:

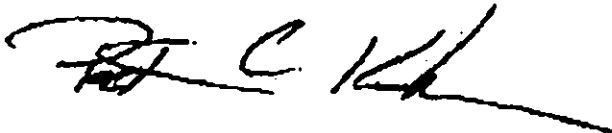
- Relicense and refurbish the Orono Project,
- Operate the facility in a run-of-river mode,
- Provide a flow of 200 cfs into the approximately 1,000 foot long bypass reach making about 250 units (one unit = 100 square yards) of salmon nursery habitat available,

- Provide upstream American eel passage and modified downstream fish passage measures consistent with Attachment A of the MPA and DOI/NMFS modified fishway prescriptions, and
- PPL is required to make monetary payments into a Contingent Mitigation Fund (CMF) as provided in Attachment B of the MPA to fully mitigate for habitat impacts in the event the Veazie (FERC No. 2403) and Great Works (FERC No. 2312) dams are not removed.

We have no substantial comments to make at this time regarding the license amendments for the Stillwater, Milford, West Enfield, and Medway projects or the new license application for the Orono Project. Atlantic Salmon Commission staff has participated in the development of the Lower Penobscot River Conceptual Agreement signed by numerous parties last fall as well as in the development of the Lower Penobscot River Multiparty Settlement Agreement. We expect that the MPA will be finalized in April 2004. Consequently, much of MASC's issues have been resolved through the Conceptual Agreement and MPA processes. As such, we support PPL's request to waive the three stage consultation requirements normally associated with license amendments and for a new license application under 18 CFR Sec. 4.38(a)(5) and Sec. 16.8(e)(1) of the Federal Power Act.

The MPA is the foundation for the Penobscot River Restoration Project, an extensive and comprehensive undertaking to improve water quality and fish and wildlife habitat, to enhance the ecology of the Penobscot River watershed, and to improve access and habitat for diadromous fish species in the Penobscot basin. We look forward to working with all stakeholders involved in this ambitious effort to restore balance to the Penobscot River.

Sincerely,



Patrick C. Keliher
Executive Director

cc: State FERC Coordinating Committee
George Lapointe, Commissioner, MDMR
Roland D. Martin, Commissioner, MDIFW
Paul Frinsko, Public Member, MASC
Joan Trial, MASC
Todd Burrows, SPO
Gordon Russell/Larry Miller, USFWS
Jeff Murphy, NMFS
Ron Kreisman
Laura Rose-Day



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JOHN ELIAS BALDACCI
GOVERNOR

DAWN R. GALLAGHER
COMMISSIONER

March 12, 2004

Scott D. Hall
Director of Environmental Services
PPL Maine LLC
PO Box 276
Milford, ME 04461

RE: Comments on Draft Applications for Amendment of License
Veazie Hydro Project, FERC No. 2403
Milford Hydro Project, FERC No. 2534
West Enfield Hydro Project, FERC No. 2600
Medway Hydro Project, FERC No. 2666
Stillwater Hydro Project, FERC No. 2712

RE: Comments on Draft Application for New License
Orono Hydro Project, FERC No. 2710

Dear Scott:

The DEP has reviewed your letters of February 17 and 25, 2004 and the accompanying draft Applications for Amendment of License for the Veazie, Milford, West Enfield, Medway and Stillwater Hydro Projects and the draft Application for New License for the Orono Hydro Project.

We have the following comments on the draft applications.

Veazie Hydro Project, FERC No. 2403

1. We understand that the amendment application calls for: (a) modifying the fish passage requirements in the current FERC license to be consistent with the modified DOI/NMFS fishway prescriptions outlined in Attachment A to the Lower Penobscot River Conceptual Agreement; and (b) extending the deadline for filing and implementing a final recreation plan.

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PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769-2094
(207) 764-0477 FAX: (207) 764-1507

Letter to Scott D. Hall

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2. We understand that, with respect to the Veazie Project, the modified DOI/NMFS fishway prescriptions outlined in Attachment A to the Lower Penobscot River Conceptual Agreement provide that PPL Maine will continue to operate the project without modifications in existing generating facilities or fish passage facilities, including full responsibility for their operation and maintenance, and to extend, until the expected option to purchase the Veazie, Great Works, and Howland Projects is exercised or expires, the deadlines for complying with the fish passage requirements contained in the current FERC license.
3. In the Maine Waterway Development and Conservation Act Permit and Water Quality Certification previously granted by the DEP for the project (Order #L-16880-35-D-N dated November 10, 1993), compliance with fish passage and recreation conditions is required upon such schedule as established by FERC. Therefore, any extension of these compliance deadlines that is approved by FERC will automatically apply to the certification, and no specific DEP approval of these extensions is required.

Milford Hydro Project, FERC No. 2534

1. We understand that the amendment application calls for: (a) incorporating the provisions of an expected settlement agreement between the Penobscot Indian Nation, PPL Maine, and the DOI Bureau of Indian Affairs; (b) modifying the fish passage requirements in the current FERC license to be consistent with the modified DOI/NMFS fishway prescriptions outlined in Attachment A to the Lower Penobscot River Conceptual Agreement; and (c) deleting several articles from the current FERC license.
2. We understand that, with respect to the Milford Project, the provisions of the expected settlement agreement between the Penobscot Indian Nation, PPL Maine, and the DOI Bureau of Indian Affairs call for PPL Maine to: change to run-of-river project operation; implement a stream bank stabilization and monitoring plan; provide a contribution to the Penobscot Indian Nation Curational Fund; provide funding to PIN to establish the Milford Project Monitoring Fund; remove semi-buoyant logs from the project impoundment; provide notice of and access to PIN to participate in any FERC inspections; provide compensation to PIN for flooded land in the impoundment; develop a canoe portage trail under specified circumstances around the western end of the Milford Dam; and include PIN and BIA in all future consultations.
3. We understand that, with respect to the Milford Project, the modified DOI/NMFS fishway prescriptions outlined in Attachment A to the Lower Penobscot River Conceptual Agreement provide that PPL Maine will continue to operate the project without modifications in existing generating facilities or fish passage facilities and to extend, until the expected option to purchase the Veazie, Great

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Works, and Howland Projects is exercised, the deadlines for complying with the fish passage requirements contained in the current FERC license, except that PPL Maine will develop and implement plans for the installation and operation of a new upstream eel fishway. The modified prescriptions further provide that, upon the exercise of the option and the purchase of the designated projects by the Purchasing Entity, PPL Maine will install a new state-of-the-art fish lift, discontinue use of the existing Denil fishway, and implement physical and operational changes to improve downstream fish passage.

4. We understand that the articles proposed for deletion from the FERC license require that the licensee monitor dissolved oxygen in the Penobscot River below the project (Article 405) and develop and implement a plan to evaluate measures to mitigate for any unavoidable losses to Atlantic salmon due to fish passage inefficiencies (Article 410).
5. The proposed amendments constitute a change in project facilities and operation as previously approved by the DEP (Order #L-16011-35-B-N dated October 23, 1992). Therefore, the proposed amendments must be approved under the Maine Waterway Development and Conservation Act and Section 401 of the Clean Water Act. Please submit a completed Application for Project Modification to the DEP, along with two copies of the final Application for Amendment of License as filed with FERC. A fee of \$109.00 must accompany the application. Please note that public notice is not required for this application.

West Enfield Hydro Project, FERC No. 2600

1. We understand that the amendment application calls for: (a) increasing the height of the existing flashboards by 1 foot; (b) establishing a Contingent Mitigation Fund to fully mitigate for the habitat impacts of increasing the headpond elevation in the event that the Veazie and Great Works Dams are not removed; (c) incorporating the provisions of an expected settlement agreement between the Penobscot Indian Nation, PPL Maine, and the DOI Bureau of Indian Affairs; and (d) requiring the installation of upstream eel passage facilities.
2. We understand that the proposed higher headpond elevation will increase the surface area of the project impoundment by 23 acres and will increase annual generation by 6.412 million kW-hours annually.
3. We understand that, with respect to the Milford Project, the provisions of the expected settlement agreement between the Penobscot Indian Nation, PPL Maine, and the DOI Bureau of Indian Affairs calls for PPL Maine to provide compensation to PIN for the flooding of additional reservation lands.

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4. We understand that the proposed requirement for the installation of upstream eel passage facilities will be consistent with the provisions outlined in Attachment A to the Lower Penobscot River Conceptual Agreement.
5. Please verify that there will be no in-stream construction work associated with the installation of 1-foot higher flashboards.
6. Please verify that the increase in impoundment area resulting from the 1-foot higher flashboards will be 23 acres (from an existing size of 1,125 acres to a new size of 1,148 acres).
7. Please state the increase in installed capacity that will result from the 1-foot higher flashboards. We note that the project is currently licensed for an installed capacity of 13 MW.
8. We note that, as amended, the project will have 7-foot-high flashboards that will be designed to fail when overtopped by 1 foot of water (i.e., at elevation 157.1 feet NGVD), which is 0.5 feet higher than the elevation at which the existing flashboards are designed to fail (when overtopped by 1.5 feet of water). We also note that the project has substantial gate capacity to pass excess flows and that, as a result, flashboard failure is expected to occur less than 10% of the time. Consequently, we are not concerned that the reduced overtopping tolerance may cause the higher flashboards to fail more frequently, thus adversely affecting aquatic habitat.
9. The proposed installation of higher flashboards qualifies as the structural alteration of a hydropower project in ways that change water levels or flows above or below the project. The other proposed amendments constitute changes in project facilities and operation as previously approved by the DEP. Therefore, the proposed amendments must be approved under the Maine Waterway Development and Conservation Act (MWDCA) and Section 401 of the Clean Water Act. Please submit a completed Application for Project Approval (Form "Hydro.2") to the DEP, along with two copies of the final Application for Amendment of License as filed with FERC. This will also serve as an application to amend the MWDCA permit and Section 401 water quality certification previously issued by the DEP for the project (Order #L-007973-35-A-A dated February 12, 1986). Please note that public notice of the application must be given to the owners of all property adjacent to the impoundment area affected by the amendment.
10. The Application for Project Approval must be accompanied by the appropriate fee. For a capacity increase of up to 0.4 MW, the base fee is \$235.00. For a capacity increase of greater than 0.4 MW, the fee is \$590.00 per megawatt of additional capacity.

Letter to Scott D. Hall

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Medway Hydro Project, FERC No. 2666

1. We understand that the amendment application calls for increasing the height of the existing flashboards by 1 foot. We understand that the proposed higher headpond elevation will increase the surface area of the project impoundment by 3.5 acres and will increase annual generation by 2.3 million kW-hours annually.
2. Please verify that there will be no in-stream construction work associated with the installation of 1-foot higher flashboards.
3. Please verify that the increase in impoundment area resulting from the 1-foot higher flashboards will be 3.5 acres (from an existing size of 98 acres to a new size of 101.5 acres). We note that recent survey work has corrected the size of the existing impoundment from 120 acres to 98 acres.
4. Please state the increase in installed capacity that will result from the 1-foot higher flashboards. We note that the project is currently licensed for an installed capacity of 3.44 MW.
5. We note that, as amended, the project will have 5.75-foot-high flashboards that will be designed to fail when overtopped by 1 foot of water (i.e., at elevation 261.3 feet NGVD), which is the same elevation at which the existing flashboards are designed to fail (when overtopped by 2 feet of water). We also note that the flashboards cannot be replaced until river flows drop below turbine capacity, which is exceeded about 58 percent of the time. We further note that the project has limited gate capacity to pass excess flows. As a result, while we appreciate your interest in maintaining the flood flow discharge capacity of the existing project, we are concerned that the reduced overtopping tolerance may cause the higher flashboards to fail more frequently, resulting in larger and more frequent fluctuations in impoundment levels, which may in turn adversely impact aquatic habitat (as well as cause a reduction in generation). Please comment on the likelihood of increased flashboard failure. If increased flashboard failure is likely, please comment on (a) the anticipated impacts on aquatic habitat and (b) the economics of replacing the current flashboard system with an inflatable flashboard system (i.e., a "rubber dam") that will automatically deflate and re-inflate to maintain more stable pond levels.
6. The proposed installation of higher flashboards qualifies as the structural alteration of a hydropower project in ways that change water levels or flows above or below the project. The proposed amendment also constitutes a change in project facilities and operation as previously approved by the DEP. Therefore, the proposed amendment must be approved under the Maine Waterway Development and Conservation Act (MWDCA) and Section 401 of the Clean Water Act.

Letter to Scott D. Hall
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Please submit a completed Application for Project Approval (Form "Hydro.2") to the DEP, along with two copies of the final Application for Amendment of License as filed with FERC. This will also serve as an application to amend the Section 401 water quality certification previously issued by the DEP for the project (Order #L-18893-33-B-N dated December 23, 1998). Please note that public notice of the application must be given to the owners of all property adjacent to the impoundment area affected by the amendment.

7. The Application for Project Approval must be accompanied by the appropriate fee. For a capacity increase of up to 0.4 MW, the base fee is \$235.00. For a capacity increase of greater than 0.4 MW, the fee is \$590.00 per megawatt of additional capacity.

Stillwater Hydro Project, FERC No. 2712

1. We understand that the amendment application calls for: (a) increasing the normal headpond elevation by 1 foot by increasing the height of the existing flashboards and by adding flashboards as needed where none currently exist; (b) modifying the minimum bypass flow requirements in the current FERC license; (c) modifying the fish passage requirements in the current FERC license to be consistent with the modified DOI/NMFS fishway prescriptions outlined in Attachment A to the Lower Penobscot River Conceptual Agreement; and (d) establishing a Contingent Mitigation Fund to fully mitigate for the habitat impacts of increasing the headpond elevation in the event that the Veazie and Great Works are not removed.
2. We understand that the proposed higher headpond elevation will increase the surface area of the project impoundment by 7 acres and will increase annual generation by 0.965 million kW-hours annually.
3. We understand that the proposed amendment calls for reducing minimum bypass flows from 40 cfs to 20 cfs in the west bypass channel and from 155 cfs to 40 cfs in the east bypass channel.
4. We understand that, with respect to the Stillwater Project, the modified fishway prescriptions outlined in Attachment A to the Lower Penobscot River Conceptual Agreement provide that PPL Maine will: develop and implement plans for the installation and operation of a new upstream eel fishway; continue to operate the existing downstream fish passage facilities; and reduce trashrack spacing to 1 inch. The modified prescriptions further provide that, upon the exercise of the expected option and the purchase of the Veazie, Great Works, and Howland Projects by the Purchasing Entity, PPL Maine will implement physical and operational changes to improve downstream fish passage but will not be subject to any additional requirements for upstream fish passage.

Letter to Scott D. Hall

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5. Please verify that there will be no in-stream construction work associated with the installation of new and higher flashboards.
6. Please verify that the increase in impoundment area resulting from the 1-foot increase in headpond elevation will be 7 acres (from an existing size of 184 acres to a new size of 191 acres).
7. Please state the increase in installed capacity that will result from the 1-foot increase in headpond elevation. We note that the project is currently licensed for an installed capacity of 1.95 MW.
8. We note that, as amended, the project will have flashboards ranging in height from 0.65 feet to 3 feet that will be designed to fail when overtopped by 1 foot of water (i.e., at elevation 95.64 feet), which is the same elevation at which the existing flashboards are designed to fail (when overtopped by 2 feet of water). Because of the limited turbine capacity and the small impoundment size, we do not have any concerns about the effects of flashboard failure in aquatic habitat.
9. The proposed installation of higher flashboards qualifies as the structural alteration of a hydropower project in ways that change water levels or flows above or below the project. All of the proposed amendments also constitute changes in project facilities and operation as previously approved by the DEP. Therefore, the proposed amendments must be approved under the Maine Waterway Development and Conservation Act (MWDCA) and Section 401 of the Clean Water Act. Please submit a completed Application for Project Approval (Form "Hydro.2") to the DEP, along with two copies of the final Application for Amendment of License as filed with FERC. This will also serve as an application to amend the Section 401 water quality certification previously issued by the DEP for the project (Order #L-16773-33-A-N dated December 29, 1992). Please note that public notice of the application must be given to the owners of all property adjacent to the impoundment area affected by the amendment.
10. The Application for Project Approval must be accompanied by the appropriate fee. For a capacity increase of up to 0.4 MW, the base fee is \$235.00. For a capacity increase of greater than 0.4 MW, the fee is \$590.00 per megawatt of additional capacity.

Orono Hydro Project, FERC No. 2710

1. We understand that the original FERC license for the Orono Project has expired and that the project has been operating under a self-renewing annual license since September 25, 1985.

Letter to Scott D. Hall

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2. We understand that, as part of the subsequent proposal by Bangor Hydro-Electric to construct the Basin Mills Dam, the Orono Project was to be decommissioned. As a consequence, no application for new license was ever filed for the project.
3. We understand that the project penstocks collapsed and were removed in 1996 by Bangor Hydro-Electric. The project has been inoperable since that time.
4. We understand that PPL Maine now proposes to rehabilitate the Orono Project and restore the project to operation at its previous capacity of 2.3 MW. PPL Maine also proposes to file an application for a new license for the project.
5. We understand that the proposed project rehabilitation includes: (a) installation of new penstocks; (b) rehabilitation of the concrete surge tank; (c) replacement of the wheelpit floors; (d) rehabilitation of the turbines; (e) removal of accumulated debris from the tailrace and turbine discharge flumes; (f) rehabilitation of the generators and associated ancillary equipment; (g) replacement of the generator controls and switchgear; and (h) rehabilitation of the powerhouse structure.
6. We understand that PPL Maine proposes to continue to operate the project in a run-of-river mode and to provide a 200 minimum flow in the project bypass reach.
7. None of the proposed rehabilitation activities appear to trigger the permitting requirements of the Maine Waterway Development and Conservation Act. However, the proposed relicensing of the Orono Project is subject to DEP approval under Section 401 of the Clean Water Act. Therefore, please submit a completed Application for Water Quality Certification (Form "Hydro.1") to the DEP, along with two copies of the final Application for New License as filed with FERC. Please note that public notice of the application must be given to the owners of all property adjacent to the dam, penstocks, and powerhouse.
8. *The Application for Water Quality Certification must be accompanied by a fee of \$949.90 (2.3 MW x \$413/MW).*

* * * * *

All of DEP's hydropower project application forms are available on-line at www.maine.gov/dep/blwq (click on Permits and Standards, then on Hydropower & Dams).

Thank you for this opportunity to comment. If you have any questions, please contact me (287-7784) or Mark Margerum (287-7842).

Letter to Scott D. Hall
March 12, 2004
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Sincerely,

A handwritten signature in dark ink, appearing to read "Dana Paul Murch". The signature is fluid and cursive, with the first name "Dana" being the most prominent.

Dana Paul Murch
Dams & Hydropower Supervisor

cc: Andy Fisk, DEP
Mark Margerum, DEP
Jay Clement, COE
Clem Fay, PIN
John Banks, PIN
Betsy Elder, SPO
Todd Burrowes, SPO
Bud Newell, DOC
Norm Dube, ASC
Pat Keliher, ASC
Steve Timpano, IF&W
Mike Smith, IF&W-Region F (Fisheries)
Kevin Stevens, IF&W-Region F (Wildlife)
Gordon Russell, USF&WS
Ron Kreisman, Esq.
Art Spiess, MHPC
Gail Wipplehuaser, DMR
Tom Squiers, DMR
Laura Rose Day, NRCM
John Burrows, ASF
Jeff Reardon, TU
Maureen Winters, Devine Tarbell & Associates



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
NORTHEAST REGION
One Blackburn Drive
Gloucester, MA 01930-2290

MAR 12 2004

Scott D. Hall
PPL, LLC
Davenport Street
P.O. Box 276
Milford, Maine 04461-0276

re: Draft License Amendment Applications

Dear Mr. Hall:

We are in receipt of your memoranda dated February 17, 2004 and February 25, 2004, as well as the draft license amendment applications attached thereto. The memoranda were directed to the parties involved in the Lower Penobscot River Conceptual Agreement, of which the National Marine Fisheries Service (NOAA Fisheries) was not a party. We appreciate your sending us a courtesy copy.

As you are aware, NOAA Fisheries has not been involved in the negotiation of this matter or in the development of the resultant Multiparty Settlement Agreement (MPA). Accordingly, we are not in a position to offer commentary on the draft applications, nor is the agency, for similar reasons, in a position to sign the MPA. NOAA Fisheries does, however, have significant interest in the aquatic resources of the Penobscot River. We intend to become involved in the imminent Federal Energy Regulatory Commission (FERC) post-filing application process and will provide comments in the usual course as set forth under the FERC's regulations. In developing our comments and modified Section 18 fishway prescription, NOAA Fisheries will take into full consideration the objectives of the MPA and actions proposed therein.

NOAA Fisheries recognizes the substantial efforts undoubtedly made by the involved parties in developing the Lower Penobscot River Conceptual Agreement and Multiparty Settlement Agreement. Further, the agency applauds as a general matter the restoration of free flowing riparian corridors and enhancement of long dormant diadromous fish habitat. NOAA Fisheries looks forward to working with you throughout the FERC license amendment process.

Sincerely,

Patricia Kurkul
Regional Administrator

cc: Gordon Russell, USFWS
Judy Stolfo, US Dept. of Interior
Andrew Tittler, US Dept. of Interior



-----Original Message-----

From: Clem Fay [mailto:pinfish@penobscotnation.org]
Sent: Wednesday, March 17, 2004 4:16 PM
To: Hall, Scott D
Cc: John Banks
Subject: PIN's Technical Comments on Draft Amendments

Scott:

I decided that none of my technical comments merited inclusion in our formal support letter to come, and so I am submitting them now (attached) so that you can go ahead and address them sooner rather than later, and to save space/verbeage in our pending, more formal, "support" letter. Other than the one on land management at WE, these should all look familiar to you already as per our previous discussions.

I have also attached a revised (deleted last paragraph from original) "Bass Impact Assessment" as referred to in my WE comments.

John may have other comments that may need to be included in our pending formal comment and support letter, but this covers what I have right now from the "technical arm".

Please let me know if any questions/concerns.

Clem.

Clem Fay

Fisheries Manager

Penobscot Nation DNR

6 River Road, Indian Island

Old Town, ME 04468

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PH: 207-817-7362

FAX: 207-827-1137

email: pinfish@penobscotnation.org

PIN's (Clem Fay) Technical Comments on Draft Amendment Applications

Milford

1. Revise page ES-2 to reflect that Art 405 (D.O. Monitoring) is not being deleted. If any revision of language in 405 is proposed, provide opportunity for review prior to final PIN approval.

Stillwater

1. Insert language where appropriate that stipulates no effect, or if an effect, specify, as to impoundment increases and existing or proposed fishways at that project, with "sign off" from FWS.

West Enfield

1. Page E-5: Existing Fish Resources:

More of a curiosity than something critical needing revision, and recognizing that the source was FERC (1986), I know of no documented presence of brown trout in the WE impoundment now or ever, nor does DIFW. DIFW indicated that there was some stocking of browns long ago in the Mattawamkeag River, and in Side Pistol Lake in 1984, but that hardly seems basis for including them as a "resident species in the impoundment" in the context of a hydropower EA. Browns were not stocked in the Piscataquis until after 1992.

2. Page E-6, fourth line from top:

Add "physical" between "original/unaltered" and "habitat".

3. Page E-6, fifth line of SMB impact paragraph:

Extend the sentence that ends "on bass habitat." to "on bass habitat in the impoundment proper and the so-called "Merrill Brook Runaround" (Fay 2004)" and then delete rest of paragraph.

4. Substitute revised bass impact document (i.e. "new" Fay 2004; attached), for original document, and modify citation in reference list as needed to reflect revised doc.

5. Insert language as appropriate that indicates no effect, or if an effect, specify, as to impoundment increases and existing or proposed fishways at that project, with sign off from FWS.

6. I suggest section 6.1 of Exhibit E be updated to recognize that there are now more than "a few seasonal camps" on the shores of the impoundment. As you know, about 5 or 6 new year-round residences now on east shore of lower impoundment, at least one new

year-round residence at one of the new lots along the west shore, one new year-round residence on the north side of the runaround near the bridge (Ralph), an upgrade of an old/unoccupied residence to year-round residence on the west shore just up from the runaround bridge (Scott), and finally John York's year-round residence.

Medway

Insert language as appropriate that indicates no effect, or if an effect, specify, as to impoundment increases and existing or proposed fishways at that project, with sign off from FWS.

**Projected Impacts of Penobscot River Restoration Project
Phase I Energy Enhancements (Impoundment Elevation Increases)
at the Stillwater, West Enfield, and Medway Projects
(by C. Fay, Fisheries Manager, Penobscot Indian Nation DNR)
March 17, 2004**

Recognizing that, except for spawning activity, smallmouth bass in the Penobscot watershed use impounded habitat as readily as free-flowing reaches, then the increased impoundment elevations associated with the Penobscot River Restoration Project Phase 1 energy enhancements at Stillwater (SW), West Enfield (WE), and Medway (MW) projects (1 foot at each location) are judged to be at worst neutral, and at best, a net positive, with respect to general bass habitat quantity and quality. To the extent that bass spawning activity occurs or would occur in these impoundments (most spawning in the main stem Penobscot River occurs in free-flowing reaches), they should simply be shifted shoreward proportional to the depth increase at the location in question.

As far as angler access to bass fisheries, and navigational safety issues, in these impoundments, again, the Phase 1 energy enhancements should result in either neutral or net positive impacts at all three projects. Specifically at West Enfield, and recognizing that in some cases, new navigational hazards will be formed where there was none previously, the one foot increase should overall reduce the potential for larger power boats/outboards to hit one of the numerous submerged log and rock cribs that are scattered throughout the lowest river mile of the impoundment, and that currently rise to within 0.5-3.0 feet of the normal water surface elevation. This is particularly true for those cribs located well above the dam, which are generally closer to the surface, harder to distinguish, and where several instances of damaged outboard motor lower units have been observed in the recent past.



STATE OF MAINE
EXECUTIVE DEPARTMENT
MAINE STATE PLANNING OFFICE
38 STATE HOUSE STATION
AUGUSTA, ME 04333

JOHN ELIAS BALDACCI
GOVERNOR

MARTHA E. FREEMAN
DIRECTOR

March 17, 2004

Mr. Scott D. Hall
Manager, Environmental Services
PPL Maine, LLC
Davenport Street
P.O. Box 276
Milford, ME 04461-0276

BY FACSIMILE

RE: Draft Amendment Applications - Veazie Hydroelectric Project (FERC No. 2403), Stillwater Hydroelectric Project (FERC No. 2712), Milford Hydroelectric Project (FERC No. 2534), West Enfield Hydroelectric Project (FERC No. 2600), and Medway Hydroelectric Project (FERC No. 2666); and Draft Application for New License - Orono Project (FERC No. 2710)

Dear Scott:

I am writing to provide the comments of the Maine State Planning Office ("SPO"), Maine Department of Inland Fisheries and Wildlife, Maine Department of Marine Resources, and Atlantic Salmon Commission¹ (hereinafter collectively referred to as the "Maine resource agencies") on the above noted applications.

By letter dated February 17, 2004, PPL Maine, LLC ("PPL") submitted the above-referenced applications (hereinafter referred to collectively as "the applications") to the Maine resource agencies and requested comments in 30 days. Having reviewed the applications, the Maine resource agencies offer the following comments, which are made contingent on the anticipated execution of the Lower Penobscot River Multiparty Settlement Agreement ("MPA") that provides for the license amendments and new license requested in the applications.

I. Overview of changes proposed by the applications

This section summarizes the Maine resource agencies' understanding of changes requested under the applications.

A. Veazie Project

PPL requests the following license modifications:

¹ The Atlantic Salmon Commission's letter dated March 10, 2004, is incorporated herein by reference.

- Modify the fish passage requirements in the current FERC license to be consistent with Department of Interior's ("DOI") and National Marine Fisheries Service's ("NMFS") fishway prescriptions modified in the manner provided by Attachment A to the MPA; and
- Extend the deadline for filing and implementing a recreation plan.

B. Stillwater Project

PPL requests the following license modifications:

- Headpond increase of one foot;
- Minimum flow reductions of 40 cfs to 20 cfs in the west bypass channel and 155 cfs to 50 cfs in the east bypass channel;
- Modifications of various specified license articles to make the license's fish passage requirements consistent with DOI's and NMFS' fishway prescriptions modified in the manner provided by Attachment A to the MPA; and
- Monetary payments into a Contingent Mitigation Fund ("CMF") to fully mitigate for habitat impacts in the manner provided by Attachment B of the MPA in the event the Veazie and Great Works dams are not removed.

C. Milford Project

PPL requests the following license modifications:

- Inclusion of terms of an agreement among the Penobscot Indian Nation, PPL and DOI/Bureau of Indian Affairs in the manner provided in the MPA;
- Inclusion of appropriate article(s) to make fish passage requirements consistent with the DOI/NMFS modified fishway prescriptions in the manner provided by Attachment A of the MPA;
- Deletion of Article 405 (dissolved oxygen monitoring) and Article 410 (mitigation for unavoidable losses to Atlantic salmon due to passage inefficiencies).

D. West Enfield Project

Bangor-Pacific Hydro Associates ("BPHA")² requests the following license modifications:

- Headpond increase of one foot; Inclusion of the Penobscot Indian Nation Agreement;
- Inclusion of appropriate article(s) into the West Enfield Project License for purposes of making those requirements associated with upstream American eel passage consistent with Attachment A of the MPA; and

² PPL Maine, LLC is the indirect owner of the managing general partner of BPHA.

- Monetary payments into a CMF in the manner provided in Attachment B to the MPA to fully mitigate for habitat impacts in the event the Veazie and Great Works dams are not removed.

E. Medway Project

PPL requests the following license modifications:

- Headpond increase of one foot; and
- Monetary payments into a CMF in the manner provided in Attachment B of the MPA to fully mitigate for habitat impacts in the event the Veazie and Great Works dams are not removed.

F. Orono Project

PPL proposes to:

- Relicense and refurbish the Orono Project;
- Operate the facility in a run-of-river mode;
- Provide a flow of 200 cfs into the approximately 1,000 foot long bypass reach making about 250 units (one unit = 100 square yards) of salmon nursery habitat available;
- Provide upstream American eel passage and modified downstream fish passage measures consistent with Attachment A of the MPA and DOI/NMFS modified fishway prescriptions; and
- Make monetary payments into a CMF in the manner provided in Attachment B of the MPA to fully mitigate for habitat impacts in the event the Veazie and Great Works dams are not removed.

II. Comments

A. Floodplain management

In the event of any changes to a watercourse, regulations governing the National Flood Insurance Program ("NFIP") obligate the community in which the change occurs to notify the Federal Emergency Management Agency ("FEMA") (in Maine, via the state NFIP coordinator) and, depending on the nature of the change, a letter of map revision application to FEMA may be required. If, for example, one or more of the changes proposed under the applications would result in a change in the base flood elevation, revision of the pertinent flood hazard maps may be required under the NFIP regulations. At this stage, the Maine resource agencies suggest that PPL consult with Maine's NFIP coordinator Lou Sidell at SPO (207-287-3261) and pertinent communities to identify additional information needs, if any, and applicable floodplain management procedures.

B. Community effects

The Maine resource agencies encourage PPL to continue its efforts to coordinate with pertinent state and federal agencies, the Penobscot Indian Nation, and any municipalities, businesses, individuals or other

potentially affected entities to identify and address as appropriate adverse effects, if any, that may result from the changes to PPL's hydro power projects requested in the applications.

C. Coastal Zone Management

The Veazie project is located in Maine's designated coastal zone. By letter dated March 12, 2004, the Maine Department of Environmental Protection ("MDEP") has noted that the proposed changes do not trigger DEP license or permit requirements that serve as the pertinent enforceable policies of the Maine Coastal Program. The proposed license amendments concern timing of actions required under the current FERC license and authorized under an existing DEP approval and do not involve any construction or other physical alterations. Thus, the proposed application does not involve a federal license or permit action for which federal consistency review is required.

The Orono, Stillwater, Milford, West Enfield and Medway projects are not located in Maine's designated coastal zone. The proposed federal license or permit actions regarding these projects may affect coastal resources or uses related to diadromous fish. SPO anticipates that any issues regarding coastal resources or uses will be addressed through pertinent state license and permitting processes, as applicable.

D. Energy

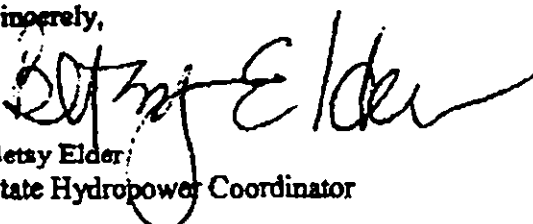
The Maine resource agencies support the increased energy generation capacity proposed by the applications as an important element of the MPA.

III. Conclusion

The Maine resource agencies offer no specific, additional substantial comments at this time regarding the license amendments for the Veazie, Stillwater, Milford, West Enfield, and Medway projects or the new license application for the Orono Project. The Maine resource agencies have participated in the development of the MPA and anticipate that it will appropriately address natural resources issues pertinent to their legal interests regarding the changes proposed by the applications. Consequently, the Maine resource agencies support PPL's request to waive the three-stage consultation requirements normally associated with applications for license amendment or a new license under the Commission's regulations. The Maine resource agencies intend to continue their involvement as appropriate in Commission as well as other related regulatory processes and may have additional, detailed comments as these processes move forward, as contemplated by the parties to the MPA.

We look forward to continued work with all stakeholders involved to realize the many and significant public benefits of the ambitious Penobscot River restoration effort pursuant to the MPA.

Sincerely,



Betsy Elder
State Hydropower Coordinator

cc:/

Dana Murch, DEP

Mark Margerum, DEP

Clem Fay, PIN

John Banks, PIN

Gail Wipfelhauser, DMR

Tom Squiers, DMR

Betsy Elder, SPO

Todd Burrowes, SPO

Bud Newell, DOC

Norm Dube, ASC

Pat Kehiber, ASC

Steve Timpano, DIFW

Art Speiss, MHPC

Gordon Russell, USFWS

Laura Rose Day, NRCM

Ron Kreisman, Esq.

Winters, Maureen

From: Hall, Scott D [shall@pplweb.com]
Sent: Wednesday, March 17, 2004 2:31 PM
To: Winters, Maureen
Subject: Two more slight edits

Maureen,

I just spoke to Clem at PIN and wanted to pass along two small items for revising the drafts.

- 1) Page E-10 in the Stillwater Application - the end of the second line under Bypass Reach minimum Flows should read, "... in the west channel and 50 cfs in the east..." It currently reads 70 cfs.
- 2) Page G-1 in the Milford Application - the first line should read, "The existing Exhibit G for the Milford Project..." It currently reads Medway.

That's it for now. Talk to you soon.

Scott

The information contained in this message is intended only for the personal and confidential use of the recipient(s) named above. If the reader of this message is not the intended recipient or an agent responsible for delivering it to the intended recipient, you are hereby notified that you have received this document in error and that any review, dissemination, distribution, or copying of this message is strictly prohibited. If you have received this communication in error, please notify us immediately, and delete the original message.



MAINE HISTORIC PRESERVATION COMMISSION
55 CAPITOL STREET
65 STATE HOUSE STATION
AUGUSTA, MAINE
04333

JOHN ELIAS BALDACCI
GOVERNOR

EARLE G. SHETTLEWORTH, JR.
DIRECTOR

March 15, 2004

Scott D. Hall
PPL Maine, LLC
Davenport St., P.O. Box 276
Milford, ME 04461-0276

Project: MHPC #0578A-01 - Milford Hydroelectric Project, Draft Amendment of License
Application; FERC #2534
Location: Milford, ME

Dear Mr. Hall:

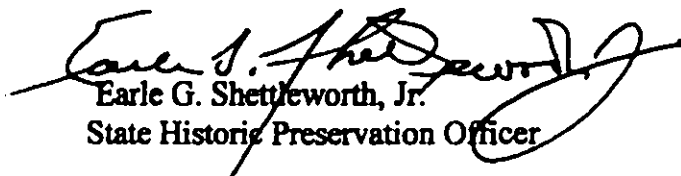
In response to your recent request, I have reviewed the information received February 19, 2004 to initiate consultation on the above referenced project. This project was reviewed pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended.

The Milford Project powerhouse and dam are listed in the National Register of Historic Places. Although you have stated on page E-1 that the license changes needed to satisfy the Lower Penobscot River Multi-Party Settlement Agreement (MPA) as it pertains to the Milford Project will not adversely effect the environmental resources described in Exhibit E of the 1997 FEIS, the Commission requests documentation to support this conclusion. Specifically, we ask that you provide us with a comparison between the fish passage requirements as they exist in the current license to those set forth in the MPA, along with a description of how the respective requirements in each scenario might be met through modifications to the historic property. The written analysis should include preliminary plans or other graphic material as appropriate. While you have indicated on page C-1 that consultation with agencies will occur for construction and operation of the fish passages, the Commission requires this material before issuing a finding of effect in accordance with the Advisory Council's regulations in 36 CFR Part 800.5.

In addition to the issue of fish passage at the Milford Project dam, we request clarification of the area subject to the proposed language change in Section E (Schedule for Implementation) on page ES-8. In particular, does this include the former Argyle Boom?

Please contact Mike Johnson of my staff if we can be of further assistance in this matter.

Sincerely,


Earle G. Shettleworth, Jr.
State Historic Preservation Officer

EGS/mj





JOHN ELIAS BALDACCI
GOVERNOR

MAINE HISTORIC PRESERVATION COMMISSION
55 CAPITOL STREET
65 STATE HOUSE STATION
AUGUSTA, MAINE
04333

EARLE G. SHETTLEWORTH, JR.
DIRECTOR

March 15, 2004

Scott D. Hall
PPL Maine, LLC
Davenport St., P.O. Box 276
Milford, ME 04461-0276

Project: MHPC #0411-97 - Medway Hydroelectric Project, Draft Amendment of
License Application; FERC #2666

Location: Medway, ME

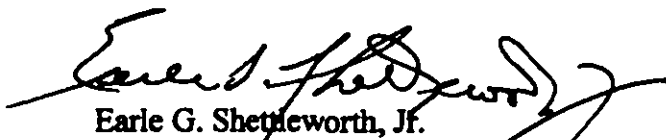
Dear Mr. Hall:

In response to your recent request, I have reviewed the information received February 19, 2004 to continue consultation on the above referenced project. This project was reviewed pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended.

Based on the location and scope of work, I have concluded that this project will have no effect upon historic properties [architectural or archaeological].

Please contact Mike Johnson of my staff if we can be of further assistance in this matter.

Sincerely,



Earle G. Shettleworth, Jr.
State Historic Preservation Officer

EGS/mj





MAINE HISTORIC PRESERVATION COMMISSION
55 CAPITOL STREET
65 STATE HOUSE STATION
AUGUSTA, MAINE
04333

JOHN ELIAS BALDACCI
GOVERNOR

EARLE G. SHETTLEWORTH, JR.
DIRECTOR

March 15, 2004

Scott D. Hall
PPL Maine, LLC
Davenport St., P.O. Box 276
Milford, ME 04461-0276

Project: MHPC #0773-99 - Stillwater Hydroelectric Project, Draft Amendment of
License Application; FERC #2712
Location: Stillwater, ME

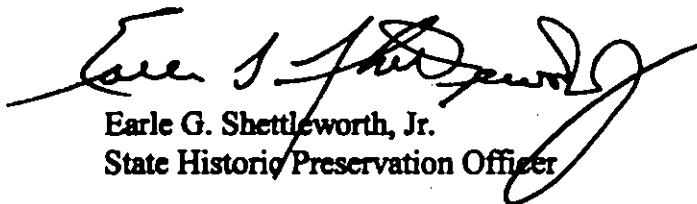
Dear Mr. Hall:

In response to your recent request, I have reviewed the information received February 19, 2004 to continue consultation on the above referenced project. This project was reviewed pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended.

Based on the location and scope of work, I have concluded that this project will have no effect upon historic properties [architectural or archaeological].

Please contact Mike Johnson of my staff if we can be of further assistance in this matter.

Sincerely,



Earle G. Shettleworth, Jr.
State Historic Preservation Officer

EGS/mj





JOHN ELIAS BALDACCI
GOVERNOR

MAINE HISTORIC PRESERVATION COMMISSION
55 CAPITOL STREET
65 STATE HOUSE STATION
AUGUSTA, MAINE
04333

EARLE G. SHETTLEWORTH, JR.
DIRECTOR

March 15, 2004

Scott D. Hall
PPL Maine, LLC
Davenport St., P.O. Box 276
Milford, ME 04461-0276

Project: MHPC #0598-04 - Orono Hydroelectric Project, (existing dam), Application for
New License; FERC #2710

Location: Orono, ME

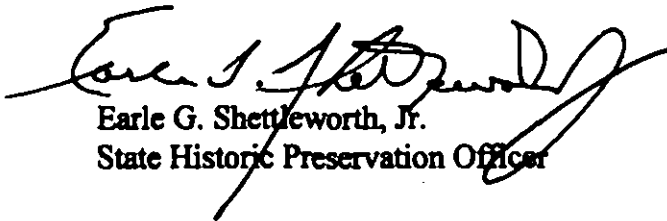
Dear Mr. Hall:

In response to your recent request, I have reviewed the information received February 19, 2004 to initiate consultation on the above referenced project. This project was reviewed pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended.

Based on the location and scope of work, I have concluded that this project will have no effect upon historic properties [architectural or archaeological].

Please contact Mike Johnson of my staff if we can be of further assistance in this matter.

Sincerely,



Earle G. Shettleworth, Jr.
State Historic Preservation Officer

EGS/mj





MAINE HISTORIC PRESERVATION COMMISSION
55 CAPITOL STREET
65 STATE HOUSE STATION
AUGUSTA, MAINE
04333

JOHN ELIAS BALDACCI
GOVERNOR

EARLE G. SHETTLEWORTH, JR.
DIRECTOR

March 15, 2004

Scott D. Hall
PPL Maine, LLC
Davenport St., P.O. Box 276
Milford, ME 04461-0276

Project: MHPC #0381-99 - West Enfield Hydroelectric Project, Draft Amendment of
License Application; FERC #2600
Location: West Enfield, ME

Dear Mr. Hall:

In response to your recent request, I have reviewed the information received February 19, 2004 to continue consultation on the above referenced project. This project was reviewed pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended.

Based on the location and scope of work, I have concluded that this project will have no effect upon historic properties [architectural or archaeological].

Please contact Mike Johnson of my staff if we can be of further assistance in this matter.

Sincerely,



Earle G. Shettleworth, Jr.
State Historic Preservation Officer

EGS/mj





JOHN ELIAS BALDACC
GOVERNOR

MAINE HISTORIC PRESERVATION COMMISSION
55 CAPITOL STREET
65 STATE HOUSE STATION
AUGUSTA, MAINE
04333

EARLE G. SHETTLEWORTH, JR.
DIRECTOR

March 25, 2004

Scott D. Hall
PPL Maine, LLC
Davenport St., P.O. Box 276
Milford, ME 04461-0276

Project: MHPC #0772-99 - draft amendment of license application; FERC#2403;
Veazie Hydroelectric Project

Location: Veazie, ME

Dear Mr. Hall:

In response to your recent request, I have reviewed the information received February 26, 2004 to continue consultation on the above referenced project. This project was reviewed pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended.

Based on the location and scope of work, I have concluded that we will need to review design plans for the proposed fish passage in order to assess potential impacts to a National Register listed prehistoric archaeological site, which is adjacent to the Veazie Dam.

Once this information is received, we will forward a response regarding the results of our evaluation. Please contact Dr. Art Spiess of this office if we can be of further assistance in this matter.

Sincerely,



Earle G. Shettleworth, Jr.
State Historic Preservation Officer

EGS/mj





United States Department of the Interior

OFFICE OF THE SECRETARY
Office of Environmental Policy and Compliance
408 Atlantic Avenue - Room 142
Boston, Massachusetts 02210-3334

March 23, 2004

Mr. Scott D. Hall,
PPL Maine, LLC
Davenport St.
P.O. Box 276
Milford, ME 04461-0276

Re: THE LOWER PENOBSCOT RIVER MULTIPARTY SETTLEMENT AGREEMENT:
PROJECTS Nos. 2403, 2666, 2600, 2534, AND 2712,
Comments on Draft Applications to Amend Licenses; Project no. 2710, Comment on
Draft License Application.

Dear Mr. Hall:

The U. S. Department of the Interior (Department) is in receipt of PPL Maine's Draft Applications for the above-referenced projects, dated February 17 and 25, 2004, which have been submitted by you consistent with the terms of the Lower Penobscot River Multiparty Comprehensive Settlement Agreement (Agreement), to which the Department will be a signatory.

The Department has reviewed the Draft Applications to Amend License Articles and the Draft License Application for the above referenced projects, and has provided comments thereon. PPL Maine has thoroughly consulted with the Department regarding the proposed amendments. Based upon a significant administrative record, thorough consultation and negotiation, the Department supports the draft petitions for amendments, and waives any further consultation with the Department or its component Bureaus that may be required under the FPA or FERC regulations with regard to these Applications.

Thank you for your consideration.

Sincerely,

Andrew L. Raddant
Regional Environmental Officer

RONALD A. KREISMAN
ATTORNEY AT LAW
25 PAGE STREET
HALLOWELL, MAINE 04347-1418

TELEPHONE: (207) 626-0248

FAX: (207) 626-0202

May 31, 2004

Mr. Scott Hall
PPL Maine, LLC
Davenport Street, P.O. Box 276
Milford, ME 04461

RE: Applications to FERC for Milford,
Orono, Stillwater, Veazie and West Enfield
Projects

Dear Scott:

I write on behalf of American Rivers, Atlantic Salmon Federation, Maine Audubon Society, Natural Resources Council of Maine, and Trout Unlimited (hereinafter, Conservation Interests), each a party that has negotiated and intends to sign in June 2004 the *Lower Penobscot River Multiparty Settlement Agreement* ("MPA"). As part of the PPL-initiated consultation process, the Conservation Interests have reviewed the following documents that you provided to them: (1) Application for Amendment of License, West Enfield Hydroelectric Project (FERC Project No. 2600); (2) Application for Amendment of License, Stillwater Hydroelectric Project (FERC Project No. 2712); (3) Application for Amendment of License, Veazie Hydroelectric Project (FERC Project No. 2403); (4) Application for Amendment of License, Milford Hydroelectric Project (FERC Project No. 2534); (5) Application for New License Major Water Power Project Under 5 MW – Existing Dam, Orono Hydroelectric Project (FERC Project No. 2710), all dated February 2004. The Conservation Interests understand the content of the documents and requests being made by PPL, both in terms of the substance of those requests and the consultation/licensing process that PPL is proposing.

Conditioned upon and subject to the execution by all signatories, including the Conservation Interests, of the MPA in a form and substance agreeable to all parties that have been negotiating the MPA (which I anticipate will happen in the first two weeks of June 2004), please consider this letter as representing the Conservation Interests' formal pre-filing indication of support for the various applications cited above. Also, please note that because of the particular circumstances surrounding the development of these applications, the Conservation Interests also are comfortable with, and do not object to, the pre-filing consultation process that PPL has utilized. Once filed at FERC, the Conservation Interests will file comments during the public comment process that FERC will establish.

Mr. Scott Hall
May 31, 2004
Page Two

Sincerely,

A handwritten signature in black ink, appearing to read "Ronald Kreisman", with a long horizontal flourish extending to the right.

Ronald A. Kreisman
Counsel to the Conservation Interests

cc: Laura Rose Day

PENOBSCOT NATION

DEPARTMENT OF
NATURAL RESOURCES

JOHN S. BANKS, DIRECTOR

June 02, 2004

Scott D. Hall
Director of Environmental Services
PPL Maine, LLC
P. O. Box 276
Milford, ME 04461



6 RIVER ROAD
INDIAN ISLAND
OLD TOWN, ME 04468
TEL: 207/827/7776
FAX: 207/827/1137

Re: Comments and Conditional Support for Proposed License Amendment Applications for PPL Maine, LLC's Veazie (FERC #2403), Milford (FERC #2534), Orono (FERC #2710), Stillwater (FERC #2712), West Enfield (FERC #2600) and Medway (FERC #2666) Hydropower Projects, located in the Penobscot River Basin, Maine.

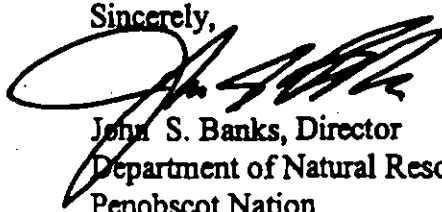
Dear Scott:

The Penobscot Indian Nation (PIN) has reviewed PPL Maine, LLC's (PPL) Draft "Phase 1" Amendment Applications for their Veazie, Milford, Orono, Stillwater, West Enfield and Medway Hydropower Projects located in the Penobscot River Basin in Maine.

Subject to the final approvals of the "Lower Penobscot River Multiparty Settlement Agreement" by all the parties to that agreement, the PIN formally and fully supports all of the referenced applications. In addition, we specifically consent to PPL's request to waive consultation requirements normally associated with such applications [18 CFR Sec. 4.38(a)(5) and Sec. 16.8(e)(1), as is applicable in each case]. It is the PIN's understanding that consultation under section 106 of the National Historic Preservation Act will commence and is not waived.

Please feel free to contact John Banks (207-817-7330) or Clem Fay (207-817-7362) of our Department of Natural Resources, or Bonnie Newsom (207-827-4168) of our Cultural Resources Department, as appropriate, should you have any questions or concerns.

Sincerely,


John S. Banks, Director
Department of Natural Resources
Penobscot Nation



Devine Tarbell & Associates, Inc.
Consulting Engineers, Scientists, & Regulatory Specialists

Telephone Log

Date:	June 10, 2004
Contact Person:	Louis Sidell, Jr
Organization:	Maine State Planning Office/Maine Floodplain Management Program
Phone Number:	(207) 287-8063

Brief Details of Discussion:

I contacted Lou to discuss the pond level changes at Medway, Stillwater and West Enfield. In her March 17, 2004 letter to Scott Hall regarding the draft amendment applications. Betsy Elder of the MSPO had noted that PPL should consult with the Maine Floodplain Management Program if there may be changes in local flood levels. Lou had discussed these projects with Todd Burrows and understood that the new flashboard systems were being designed to fail so that there would be no change in water levels during high flow events. Lou was going to review Betsy's letter and may consult with FEMA/NFIP, but he did not see any issues requiring further action by PPL. He will follow up after he has reviewed Betsy' letter and followed up with FEMA (if warranted)

Follow-Up Actions:

☐ Notify _____ ☐ Contact Core Team ASAP ☐ Tickle for _____ ☐ Return Call ☐ Other (See Notes)	
---	--

Employee's Name	Matron Whittier
------------------------	------------------------

Organization of Amendment

This Amendment Application presents information and a discussion of those facilities and resources which will be affected by the proposed one-foot impoundment elevation increase and upstream eel passage provisions. Since the Amendment will only affect limited aspects of the Project, only relevant sections of the 1982 "Application for License West Enfield Project" (Bangor Hydro-Electric Company [BHE] 1982) as amended by the 1986 "Application for Amendment of Major License, West Enfield Project" (BHE 1986) are presented herein. The previously filed Application for License and Application for Amendment of Major License, and other relevant documents, including the 1986 "Environmental Assessment, West Enfield Project" (FERC 1986) and the "West Enfield Operations Modification Assessment" (Northwest Economic Associates [NEA] 2002), are referenced for additional details, as appropriate.

This Amendment Application has been prepared in accordance with 18 CFR §4.201. Consistent with that subsection, and because the West Enfield Project has an installed capacity greater than 5 MW, this application includes an Initial Statement and Exhibits A, B, C, D, E, and F, prepared pursuant to 18 CFR §4.51.

Exhibit A

Project Description

BPHA owns and operates the West Enfield Hydroelectric Project, which is licensed by FERC as Project No. 2600. The West Enfield Project spans the Penobscot River in the towns of Enfield and Howland, Penobscot County, Maine. Figure A-1 presents a map of the West Enfield Project location.

The existing West Enfield Project works consist of: a 39-foot-high concrete dam consisting of a 194-foot-long non-overflow spillway, a 107-foot-long gated spillway, and a 363-foot-long overflow spillway surmounted with 6-foot-high flashboards; an 1,125-acre reservoir; a powerhouse containing two turbine-generator units with a total rated capacity of 13 MW; 13.8 kV generator leads; a 13.8/46 kV step-up transformer; a 1,400-foot-long transmission line; a 1,100-foot-long tailrace; a vertical slot fish ladder at the powerhouse; and appurtenant facilities.

A detailed description of the West Enfield Project can be found in Exhibit A of the Application for License filed with FERC in 1982 (BHE 1982) and the 1986 Application for Amendment of Major License (BHE 1986). In this section of the Amendment Application the only change to project structures that BPHA is proposing is to raise the height of the existing wooden flashboard system by one foot.¹ Thus, only those sections of the existing Exhibit A which describe the existing and proposed flashboards and impoundment have been revised and presented herein. All other sections of Exhibit A remain unchanged. Table A-1 summarizes the project data for those aspects of the project affected by the proposed change.

Exhibit F contains updated plans depicting the dam and flashboards.² All elevations contained herein are consistent with the National Geodetic Vertical Datum (NGVD), which is equivalent to the 1929 Mean Sea Level Datum (MSL), unless otherwise noted.

¹ In this Amendment Application, BPHA is also proposing provisions related to upstream eel passage. However, the proposed new license article will require submittal of detailed passage design plans, as a condition of the amended license, at a later time. Therefore, no design details for upstream eel passage are reflected in this project description.

1.0 Description of Civil Works Affected by Proposed Amendment

1.1 Existing Flashboards

The West Enfield dam has a permanent crest elevation of 149.1 feet. A six-foot-high wooden flashboard system is installed on the spillway, resulting in a normal pond elevation of 155.1 feet.

1.2 Proposed Flashboards

The existing West Enfield dam will remain unchanged except that the new flashboard system will be seven feet in height. This will result in a one-foot increase in the normal water surface elevation to 156.1. The new flashboard system has been designed to allow failure when overtopped by one foot of water, whereas the existing boards are designed to fail when overtopped by 1.5 feet. Upon failure of the flashboards, the dam's flood flow discharge will be maintained, and there will be no change in upstream water levels during high flow periods. Additionally, the flashboards will fail at a lower flow.

2.0 Impoundment Data

2.1 Existing Impoundment

The existing West Enfield Project impoundment is approximately six miles long and encompasses approximately 1,125 acres.

² Consistent with the Commission's Critical Energy Infrastructure Information (CEII) regulations [18 CFR §388] Exhibit F is provided in a separate volume filed only with Commission staff. However, a description of the changes made to existing Exhibit F plans is provided in Exhibit F in this volume.

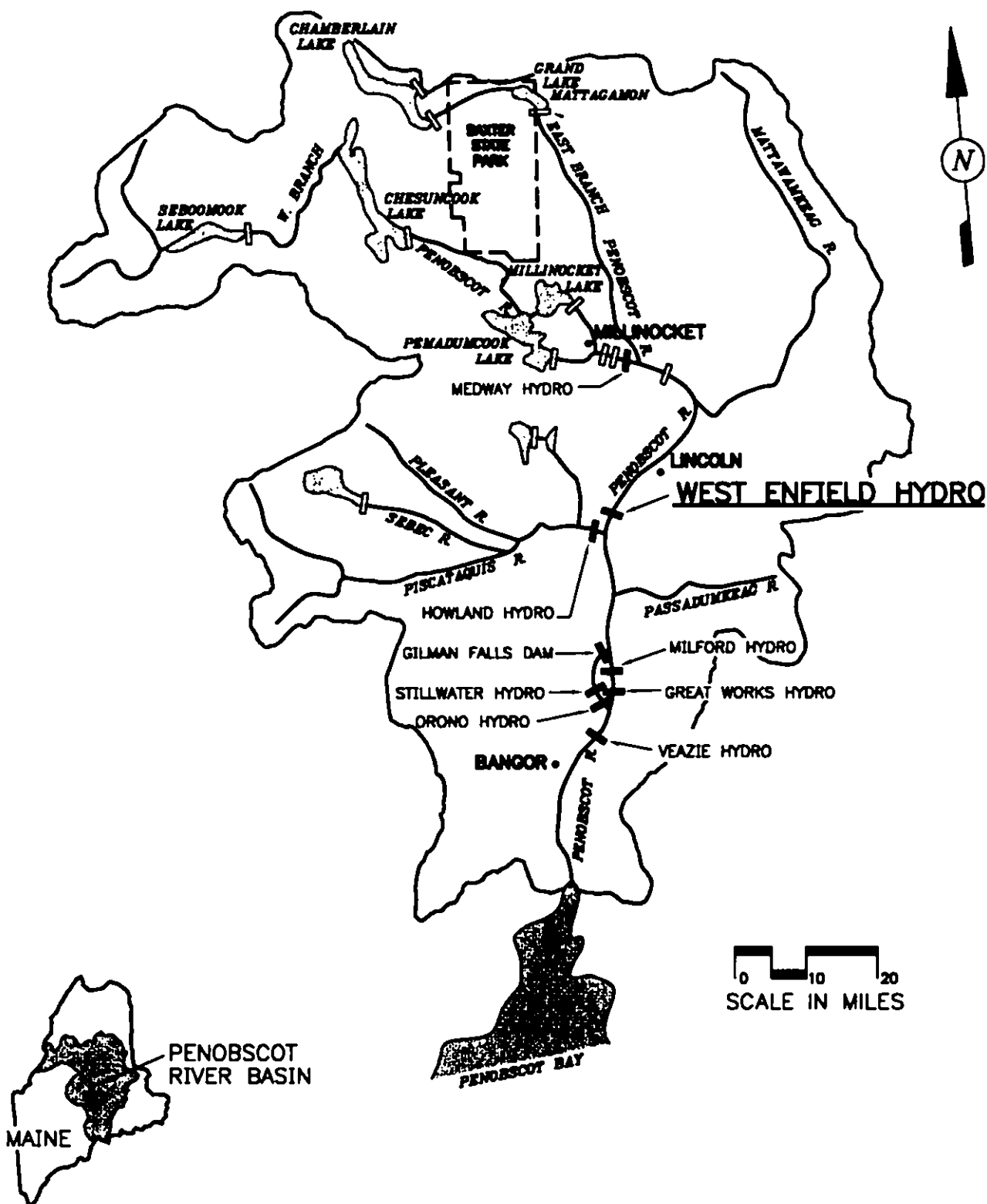
2.2 Proposed Impoundment

The proposed one-foot increase in normal pond will increase the area of the impoundment by an estimated 23 acres, to approximately 1,148 acres (NEA 2002). The length of the impoundment will not increase appreciably.

TABLE A-1³
WEST ENFIELD PROJECT
PROJECT DATA FOR AFFECTED FEATURES / STRUCTURES

	Existing	Proposed
Normal Water Surface Elevation (w/flashboards)	155.1	156.1
Estimated Average Head (feet)	21	22
Reservoir Surface at Full Pond (acres)	1,125	1,148
Estimated Average Annual Generation (MWh)	91,613	97,413
Flashboards		
Height (feet)	6	7

³ Only project data for features/structures affected by the proposed amendment are reflected here. Refer to Table A-1 of the prior application (BHE 1982) for the complete table.



LOCATION PLAN

PPL MAINE, LLC
WEST ENFIELD HYDROELECTRIC PROJECT
PROJECT LOCATION MAP
FIGURE A-1

Exhibit B

Operation and Resource Utilization

A detailed description of the West Enfield Project operations can be found in Exhibit B of the Application for License filed with FERC in 1982 (BHE 1982) and the 1986 Application for Amendment of Major License (BHE 1986). In this section of the Amendment Application, the only change to project operations that BPHA is proposing is to increase the normal pond by one-foot, thereby increasing annual average generation. Thus, only those sections of the existing Exhibit B which describe operations and anticipated changes to annual generation have been revised and presented herein. All other sections of Exhibit B remain unchanged.

1.0 Plant Operations

1.1 Existing Operations

BPHA operates the Project in a run-of-river mode. The West Enfield Project is manned eight hours per day, seven days per week, with an operator on call the remainder of the time.

The normal impoundment elevation of 155.1 feet is maintained when river flows are at or below the hydraulic capacity of the turbines. At elevation 155.1, the existing impoundment has a surface area of 1,125 acres and extends upstream approximately six miles.

When river flows exceed turbine capacity water is passed through three radial gates with a combined capacity of 29,000 cfs at top of flashboards elevation 155.1. The flashboards on the spillway are designed to begin to fail when the impoundment reaches elevation 156.6 at which point the spillway discharges 33,500 cfs. The ungated and gated spillways have discharge capacities of 56,500 cfs and 40,000 cfs, respectively, and can pass the 100-year peak flow of 96,500 at elevation 160.8 feet.

The flashboards cannot be replaced until the river flow drops below turbine capacity. This allows the impoundment to be lowered below its permanent crest of 149.1, thus providing a safe environment for workers to erect new boards on the crest of the dam.

The West Enfield Project dam is classified as a low hazard structure and was exempted from Part 12 Independent Safety Inspections and Emergency Action Plan requirements by letter dated September 25, 1985. However, in preparing this Amendment Application, BPHA had existing engineering and flood studies reviewed in order to confirm that the impoundment raising will not affect project engineering or have flooding impacts. Memoranda discussing flooding impacts and engineering issues are included in the CEII volume.

1.2 Proposed Operations

The proposed project enhancements and changes will not alter project operations. BPHA will continue to operate the project in a run-of-river mode. The normal impoundment elevation at the dam will be raised from 155.1 feet to 156.1 feet. This elevation will continue to be maintained when river flows are at or below the hydraulic capacity of the turbines. The impoundment surface area of approximately 1,125 acres will be increased minimally to approximately 1,148 acres. Given the rapid elevation change at the upper end of the impoundment, the length of the six-mile project impoundment is not expected to increase appreciably.

The new flashboard system has been designed to fail when overtopped by one foot at headwater elevation 157.1 feet. The combined discharge over the flashboards and through the gated spillway just prior to flashboard failure is 33,100 cfs. Although the failure of flashboards under future conditions is 0.5 higher than existing conditions, flashboards will fail at approximately the same flow (combined gated and ungated spillway capacity) compared to existing conditions (33,500 cfs). Upon flashboard failure, hydraulic discharge capacity at the dam and upstream water levels will remain unchanged.

In its comments on the draft of this Application, the Maine State Planning Office (MSPO) noted that changes resulting from the increased headpond level could require adjacent communities to consult with the Federal Emergency Management Agency (FEMA) regarding impacts to the National Flood Insurance Program (NFIP) maps (letter dated March 17, 2004, Appendix ES-A, Consultation Document). The increased headpond elevation will not impact flood levels because

the flashboards will still fail at flows that are less than flood stage. However, the applicant is consulting with the Maine's NFIP coordinator, as the MSPO requested (see Telephone Discussion Notes dated June 10, 2004 [Appendix ES-A]). Any additional information received will be filed with FERC upon receipt.

2.0 Station Capacity and Average Annual Energy Production

The installed capacity of the West Enfield Project is 13 MW, and BPHA is proposing no capacity changes. Additional information regarding station capacity can be found in Exhibit B.4 of the Application for License (BHE 1982) and the 1986 Application for Amendment of Major License (BHE 1986).

2.1 Existing Average Annual Energy Production

Based on the Licensee's records, the average annual net generation between 1989 and 2003 has been 91,613 MWh.

2.2 Proposed Average Annual Energy Production

BPHA estimates that the annual average generation increase that will result from the one-foot increase in headpond elevation will be approximately 5,800 MWh/yr.

3.0 Power Utilization

The power generated at the project is used by the Licensee to supply capacity and energy to the New England region.

4.0 Future Development

There are no plans for future development of the West Enfield Project site.

Exhibit C

Construction History and Proposed Schedule

1.0 Construction History

The construction history of the West Enfield Project can be found in Exhibit C.1 of the "Application for License, West Enfield Project" (BHE 1982) and the 1986 "Application for Amendment of Major License, West Enfield Project" (BHE 1986).

2.0 Proposed Construction and Schedule

BPHA proposes to replace the existing flashboard system at the West Enfield Project as soon as possible after Commission approval. The new flashboard system installation will be undertaken in the same manner as normal flashboard replacement and will not require any instream construction work.

This Amendment Application proposes incorporation of a license article for upstream American eel passage consistent with Attachment A of the MPA. The proposed new license article will require submittal of detailed passage design plans and implementation schedules. Thus, the final schedule for construction and operation of the upstream eel passage at the West Enfield Project will be determined based upon consultation with agencies.

Exhibit D

Statement of Costs and Financing

1.0 Estimated Cost of Existing Project

The estimated cost of the existing West Enfield Project can be found in Exhibit D of the 1986 “Application for Amendment of Major License, West Enfield Project” (BHE 1986).

2.0 Estimated Cost of New Development

The costs for all proposed project improvements and changes will be financed through BPHA’s normal capital and operating budgets. The costs associated with the modification of the existing flashboard system will be negligible. The capital and operating costs of the upstream American eel passage will be determined based upon the final passage design, after consultation with agencies.

Exhibit E

Environmental Report

A detailed description of the environmental resources present in the project area has been presented in Exhibit E of the "Application for License, West Enfield Project" filed with FERC in 1982 (BHE 1982) and the 1986 "Application for Amendment of Major License, West Enfield Project" (BHE 1986). In addition, the resources of the project area were analyzed in the 1986 Environmental Assessment (FERC 1986) and the "West Enfield Operations Modification Assessment" (Northwest Economic Associates [NEA] 2002). This section discusses only those resources affected by the proposed impoundment raising, including water quality, fisheries and wetlands.

1.0 General Description

A complete general description of the West Enfield Project area can be found in Exhibit E.I of the Application for License (BHE 1982) and the 1986 Application for Amendment of Major License (BHE 1986) and the EA (FERC 1986). The proposed project changes will not affect any resources described in that portion of Exhibit E.

2.0 Report on Water Use and Quality

2.1 Existing Resources

The Penobscot River in the vicinity of the project is designated by the State of Maine as a Class B water.

The Maine Department of Environmental Protection (MDEP) issued a Section 401 Water Quality Certification for the West Enfield Project on February 12, 1986, finding that the project, as then proposed to be licensed (as amended), would comply with applicable state water quality standards. By letter dated January 26, 2004, MDEP stated that the amendments proposed in this application will not adversely affect water quality in the West Enfield Project area. BPHA has applied for an amendment to its Water Quality Certification for the project changes proposed in this Amendment Application (Exhibit E, Appendix E-A).

A complete description of the water resources of the West Enfield Project area can be found in Exhibit E.2 of the Application for License (BHE 1982), the previous Amendment Application (BHE 1986), and the EA (FERC 1986).

2.2 Anticipated Impacts

The project enhancements and changes proposed in this Amendment Application will not have any measurable affect on the water quality in the West Enfield Project area (MDEP 2004).

2.3 Measures or Facilities Recommended by Agencies

No additional studies or resource protection, mitigation or enhancement measures have been requested by resource agencies to address impacts to water quality (see Appendix ES-A, Consultation Documentation).

2.4 Measures or Facilities Proposed by Licensee

No changes to facilities or operations of the West Enfield Project are proposed that would have a measurable effect on water quality (MDEP 2004), and no mitigation measures are proposed.

3.0. Fish, Wildlife, and Botanical Resources

3.1 Fish Resources

3.1.1 Existing Resources

The West Enfield Project includes a shallow riverine impoundment that extends approximately six miles upstream to a point just below Mohawk Rapids. Resident riverine species found in the project waters include landlocked Atlantic salmon, brook trout, smallmouth bass, chain pickerel, white perch and yellow perch (FERC 1986). Anadromous species including Atlantic salmon and alewife utilize the mainstem of the Penobscot River and project area as a primary migratory route. The catadromous American eel is present throughout the Penobscot Basin. There are no known threatened or endangered fish species in the West Enfield Project area.

A complete description of the fish resources of the West Enfield Project area can be found in Exhibit E.3 of the Application for License (BHE 1982), the previous Amendment Application (BHE 1986), and the EA (FERC 1986).

3.1.2 Anticipated Impacts

In determining which fisheries resources to include when assessing impacts associated with the proposed impoundment raising, NEA, PIN, USFWS, and the MASC agreed that "Atlantic salmon parr and smolt production habitat, and adult spawning habitat, were judged to potentially be the most vulnerable [to modified surface elevations] and valuable fish habitat resources within the [West Enfield Project impoundment]" (NEA 2002). It was further agreed that the area in the uppermost reach of the impoundment in the vicinity of the un-impounded Mohawk Rapids was the area most vulnerable to impoundment raising impacts.

Atlantic salmon parr and smolt habitat suitability in the uppermost reach of the West Enfield Project impoundment was assessed by the PIN and USFWS in 2002 (NEA 2002). This evaluation estimated that a one-foot increase in impoundment elevation and associated 23-acre

increase in impoundment area could cause “approximately 10.43 acres, or 422 metric habitat units... of potential parr and smolt production habitat to be diminish from providing some (but likely less than ideal) physical suitability to providing no suitability, “and approximately 10.94 aces, or 433 metric habitat units” to diminish from original/unaltered physical habitat suitability to some undetermined lower level. If it is assumed that this habitat would become completely unsuitable, estimated smolt loss for this diminished habitat would be less than 2.2 percent of mainstem production potential, and 0.3 percent of the total basin potential production.

In that same assessment, impacts to six tributaries in the project area were estimated. None of the tributaries would be significantly adversely impacted by a one-foot increase in impoundment elevation (NEA 2002).

Smallmouth bass in the Penobscot watershed use impounded and free-flowing reaches equally, with the exception of spawning which occurs primarily in free-flowing stretches. To the extent that bass spawning activity might occur in the impoundment, the bass would be expected to shift shoreward proportional to the depth increase. Thus, the increased impoundment elevation proposed in the Amendment will have either no effect, or a net-positive effect, on bass habitat, in the impoundment proper and the so-called “Merrill Brook Runaround” (Fay 2004).

The one-foot increase in impoundment level will not effect existing or proposed fish passage facilities or their operations.

3.1.3 Measures or Facilities Recommended by Agencies

No additional studies or resource protection, mitigation or enhancement measures have been requested by resource agencies to address potential impacts to fishery resources (see Appendix ES-A, Consultation Documentation).

3.1.4 Measures or Facilities Proposed by Licensee

BPHA is proposing to implement upstream American eel passage consistent with Attachment A of the MPA as described in the proposed license articles in the Executive Summary.

In addition, in order to fully mitigate for any potential habitat impacts associated with the requested impoundment increase, parties to the MPA developed a Contingent Mitigation Fund (CMF) (Attachment B to the MPA), whereby it was agreed that the impacts will be fully mitigated by removal of the Veazie (FERC No. 2403) and Great Works (FERC No. 2312) dams. If those dams are not removed, then the MPA provides for the establishment of the CMF and requires BPHA will make monetary payments in certain circumstances, as specified in Attachment B to the MPA, to the CMF to fully mitigate for the habitat impacts.

3.2 Wildlife Resources

3.2.1 Existing Resources

Wildlife habitats within the surrounding project area are predominantly characterized by mature mixed hardwood/conifer forest habitat, with fringe palustrine forested, scrub-shrub and emergent wetlands. The federally-threatened bald eagle is not known to nest within the project area, but nesting and overwintering upstream and downstream of the project area occurs (FERC 1986; NEA 2002). The Maine Department of Inland Fisheries and Wildlife (MDIFW) database indicates that three state listed species, Brook-floater and squawfoot mussels and wood turtles, could inhabit the area (NEA 2002). Deer wintering areas and wading and waterfowl habitat also occurs in the area (NEA 2002). In its 1986 EA, FERC determined that the continued operation of the West Enfield Project would not adversely affect any federally-threatened or -endangered wildlife species. A complete description of the wildlife resources of the West Enfield Project area can be found in Exhibit E.3.2 of the Application for License (BHE 1982), the previous Amendment Application (BHE 1986), and the EA (FERC 1986).

3.2.2 Anticipated Impacts

The project enhancements and changes proposed in this Amendment Application will not adversely affect the wildlife resources in the West Enfield Project area.

3.2.3 Measures or Facilities Recommended by Agencies

No additional studies or resource protection, mitigation or enhancement measures have been requested by resource agencies to address impacts to wildlife resources (see Appendix ES-A, Consultation Documentation).

3.2.4 Measures or Facilities Proposed by Licensee

No changes to facilities or operations are proposed that would adversely affect wildlife resource, and no mitigation measures are proposed.

3.3 Botanical Resources

3.3.1 Existing Resources

The West Enfield Project area is largely undeveloped. Predominant cover types include hardwood, softwood and mixed forests, and palustrine emergent, scrub-shrub and forested wetlands. A complete description of the botanical resources of the West Enfield Project area can be found in Exhibit E.3.3 of the Application for License (BHE 1982), the previous Amendment Application (BHE 1986), and the EA (FERC 1986). Discussed below are those resources that may be affected by the impoundment raising, including wetlands, and critical areas or threatened/endangered species.

Wetlands

Eleven wetland areas were identified during a 2002 survey of the West Enfield Project impoundment (NEA 2002). Floodplain wetlands are typical in this area, consisting of palustrine emergent, palustrine scrub/shrub, palustrine forested, palustrine unconsolidated bottom, and lacustrine littoral wetlands. A functional analysis of these wetlands indicated that they provide floodflow alteration, sediment/toxicity retention, shoreline stabilization and protection, fish and wildlife habitat, and recreational functions and values (NEA 2002).

Critical Natural Features and Rare, Threatened, and Endangered Plant Species

No botanical critical area features, including threatened or endangered plants or plant communities, have been observed or documented within the project boundary. The MDIFW's database indicates that Orono sedge (*Carex oronensis*), long-leaved bluet (*Houstonia longifolia*) and threadfoot (*Podostemum ceratophyllum*) could occur in the area, although no occurrences have been confirmed.

3.3.2 Anticipated Impacts

A 2002 analysis of the project area wetlands indicated that raising the impoundment would result in "some short-term losses in wetland acreage, functions and values and minimal to no net long-term losses of wetland acreage" (NEA 2002). Some conversion of wetland types would be expected to occur, and conversion of uplands could result in a net gain in wetlands (NEA 2002).

3.3.3 Measures or Facilities Recommended by Agencies

No additional studies or resource protection, mitigation or enhancement measures have been requested by resource agencies to address impacts to botanical resources (see Appendix ES-A, Consultation Documentation).

3.3.4 Measures or Facilities Proposed by Licensee

No changes to facilities or operations are proposed that would adversely affect botanical resources, and no mitigation measures are proposed.

4.0 Historical and Archaeological Resources

4.1 Existing Resources

No historic or archaeological properties that are either listed or eligible for listing, on the National Register of Historic Places are located in the project area. A complete description of the cultural resources of the West Enfield Project area can be found in Exhibit E.4 of the Application for License (BHE 1982) and the previous Amendment Application (BHE 1986).

4.2 Anticipated Impacts

In association with the previous licensing and amendment proceedings, the Maine Historic Preservation Commission (MHPC) reported that there are no properties in the West Enfield Project area of prehistoric, historic or architectural archaeological significance that would be impacted by the project. BPHA consulted with the State Historic Preservation Officer (SHPO) and the Penobscot Indian Nation (PIN) Tribal Historic Preservation Officer (THPO) regarding the improvements and changes proposed in this Amendment Application to confirm that there are no additional historic or archaeological issues at this time. By letter dated March 15, 2004 (Exhibit E, Appendix ES-A), the SHPO stated that the Amendments to the West Enfield Project license proposed herein will have no effect on archaeological or architectural historic properties. Additional consultation with the SHPO and THPO will occur as necessary to address potential impacts associated with construction activities at the project.

4.3 Measures or Facilities Recommended by Agencies

In association with the previous licensing and amendment proceedings, the MHPC found that there are no properties in the West Enfield Project area of archaeological, historic or architectural significance, as defined by the National Historic Preservation Act of 1966 (as amended). BPHA consulted with the SHPO and the THPO regarding the improvements and changes proposed in this Amendment Application, and no measures were recommended (see Appendix ES-A, Consultation Documentation).

4.4 Measures or Facilities Proposed by Licensee

Based upon consultation with the SHPO and THPO, no mitigation or enhancement measures were determined to be necessary.

5.0 Recreational Resources

5.1 Existing Resources

There are no formal recreational facilities at the West Enfield Project owned or operated by BPHA. Recreational access for shore and boat fishing and hunting exists in the project area on privately owned lands, including lands of the Penobscot Indian Nation and on land owned by the Town of Howland. A complete description of the recreation resources of the West Enfield Project area can be found in Exhibit E.5 of the Application for License (BHE 1982) and the previous Amendment Application (BHE 1986).

5.2 Anticipated Impacts

The project enhancements and changes proposed in this Amendment Application will not adversely affect the recreational resources in the West Enfield Project area. Angler access and navigational safety will not be affected, or may be positively affected, by the proposed one-foot impoundment elevation increase. The one-foot increase should overall reduce the potential for larger power boats/outboards to hit one of the numerous submerged log and rock cribs that are scattered throughout the lowest river mile of the impoundment, many of which are currently only submerged 0.5 to 3 feet (Fay 2004).

5.3 Measures or Facilities Recommended by Agencies

No additional studies or resource protection, mitigation or enhancement measures have been requested by resource agencies to address impacts to recreational resources (see Appendix ES-A, Consultation Documentation).

5.4 Measures or Facilities Proposed by Licensee

No changes to facilities or operations of the West Enfield Project are proposed that would adversely affect recreational resources, and no mitigation measures are proposed.

6.0 Land Management and Aesthetics

6.1 Existing Resources

Most of the West Enfield Project area is wooded and primarily undeveloped. Year-round residences and seasonal camps exist on the shores of the impoundment. The Penobscot Indian Nation (PIN) owns all of the islands within the impoundment, including 29 small islands within the area of potential impact for the new impoundment elevation. The impoundment aesthetic resources are viewed through a predominantly undeveloped river corridor. A complete description of land management and aesthetics of the West Enfield Project area can be found in Exhibit E.6 of the Application for License (BHE 1982), the previous Amendment Application (BHE 1986), and the EA (FERC 1986).

6.2 Anticipated Impacts

The one-foot increase in impoundment elevation will inundate approximately 23 acres of land along the impoundment shore and islands, of which approximately 12 acres is on the impoundment islands owned by the Penobscot Indian Nation.

6.3 Measures or Facilities Recommended by Agencies

No additional studies or resource protection, mitigation or enhancement measures have been requested by resource agencies to address impacts to land and aesthetic resources (see Appendix ES-A, Consultation Documentation).

6.4 Measures or Facilities Proposed by Licensee

No changes to facilities or operations of the West Enfield Project are proposed that would adversely affect land management and aesthetic resources, and no other mitigation measures are proposed. Impacts to the PIN islands are addressed under the Comprehensive Settlement

Agreement Between the Penobscot Indian Nation, PPL Maine, LLC, and the Bureau of Indian Affairs of the Department of the Interior, dated June 2004.

7.0 Literature Cited

Bangor Hydro-Electric Company. 1982. Application for License, West Enfield Project, FERC No. 2600. BHE, Bangor, Maine.

———. 1986. Application for Amendment of Major License, West Enfield Project, FERC No. 2600. BHE, Bangor, Maine.

Fay, C. 2004. E-mail from Clem C Fay, Penobscot Indian Nation Department of Natural Resources, to Scott D. Hall, PPL Maine, dated March 17, 2004, regarding: Projected Impacts of Penobscot River Restoration Project Phase I Energy Enhancements (Impoundment Elevation Increases) at the Stillwater, West Enfield, and Medway Projects. PIN DNR, Old Town, Maine.

Federal Energy Regulatory Commission. 1986. Environmental Assessment, West Enfield Project (FERC No. 2600). FERC Office of Hydropower Licensing. FERC, Washington, D.C.

Lower Penobscot River Multiparty Settlement Agreement. June 2004.

Maine Department of Environmental Protection. 2004. Letter from Dana P. Murch to Scott D. Hall, PPL Maine, dated January 26, 2004, re: Phase I Energy Enhancements Lower Penobscot River Conceptual Agreement. MDEP, Augusta, Maine.

Northwest Economic Associates. 2002. West Enfield Operations Modification Assessment. NEA, Vancouver, WA.

Penobscot Indian Nation, PPL Maine, LLC, and the Bureau of Indian Affairs of the Department of the Interior. 2004. Comprehensive Settlement Agreement Between the Penobscot Indian Nation, PPL Maine, LLC, and the Bureau of Indian Affairs of the Department of the Interior.

APPENDIX E-A
WATER QUALITY CERTIFICATION REQUEST

PPL Maine, LLC
Davenport Street
PO Box 276
Milford, ME 04461-0276
Tel. 207.827.2247 Fax 207.827.4102
www.pplweb.com



14 June 2004

Dana P. Murch
Dams and Hydro Supervisor
Maine Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017

**RE: LOWER PENOBSCOT RIVER MULTIPARTY SETTLEMENT
AGREEMENT, JUNE 2004**

**WATER QUALITY CERTIFICATION, MAINE WATERWAY
DEVELOPMENT AND CONSERVATION ACT, AND PROJECT
MODIFICATION APPLICATION FORMS**

**Medway - FERC NO. 2666 (WQC & MWDCA)
Stillwater - FERC NO. 2712 (WQC & MWDCA)
Milford - FERC NO. 2534 (Project Modification)
Orono - FERC NO. 2710 (WQC)
West Enfield - FERC NO. 2600 (WQC & MWDCA)**

Dear Mr. Murch:

In accordance with the *Lower Penobscot River Multiparty Settlement Agreement, June 2004* (MPA), PPL Maine, LLC has prepared various applications requesting approval for changes to the subject projects' water quality certifications and respective Federal Energy Regulatory Commission (FERC or Commission) licenses that are intended to implement the first phase of the MPA. The MPA is entirely consistent with the *Lower Penobscot River Conceptual Agreement, August 2003*, that we briefed the Department on several months ago. Please note that we expect to file the MPA, as well as all associated documents and requests with FERC, on or about 14 June 2004. Included in that filing, which will be copied to the Department, will be an explanatory statement that outlines the MPA and how the various requests for changes at our hydro projects fit within it.

We appreciate the Department's 12 March 2004 letter commenting on the draft applications. Without waiving any objections we may have as to provisions of State law that are preempted by the Federal Power Act, PPL Maine, LLC (and Bangor-Pacific Hydro Associates in the case of West Enfield) are submitting an original and one copy of each of the application forms for the above-referenced projects under the Maine Waterway Development and Conservation Act and Section 401 of the Clean Water Act. You will note that each application form cites applicable exhibits in the corresponding FERC application that will be filed soon hereafter. In the FERC applications we are requesting that the Commission use the revised license article provided by us to implement the requested changes and we also request that the Department, to the extent practicable, utilize the same language for changes to the water quality certification conditions.

Specifically, the enclosed application forms request changes to various projects as summarized below;

Medway Hydro Project, FERC No. 2666, Medway, Maine: increasing the normal headpond elevation by 1 foot by increasing the height of the existing flashboards

Stillwater Hydro Project, FERC No. 2712, Old Town, Maine: increasing the normal headpond elevation by 1 foot by increasing the height of the existing flashboards; modifying the minimum bypass flow requirements; and modifying the fish passage requirements to be consistent with the modified DOI/NMFS fishway prescription.

Milford Hydro Project, FERC No. 2534, Milford and Old Town, Maine: modifying the fish passage requirements to be consistent with the modified DOI/NMFS fishway prescription.

Orono Hydro Project, FERC No. 2710, Orono Maine: relicense and rehabilitate the Project to operate at its existing capacity of 2.3 MW; and modifying the fish passage requirements to be consistent with the modified DOI/NMFS fishway prescription.

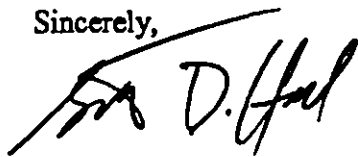
West Enfield Hydro Project, FERC No. 2600, Enfield and Howland, Maine: increasing the normal headpond elevation by 1 foot by increasing the height of the existing flashboards, and incorporating the installation of upstream eel passage facilities.

As required by the Department's Chapter 2 rules, and certified within the enclosed respective application forms, please be advised that we have published a combined "Notice of Intent to File" (NOI) in the Bangor Daily News (2 June 2004) and we have sent a copy of the NOI to abutting property owners of the affected projects via certified mail. In addition, we have provided a copy of the NOI as well as copies of the enclosed application forms to the appropriate municipalities.

In addition, in accordance with the Department's 12 March 2004 letter commenting on the draft applications for the above-referenced projects, we have enclosed a check for \$1835.70 (combined total of \$235.00 for Medway; \$235.00 for Stillwater; \$109.00 for Milford; \$949.90 for Orono; and \$306.80 for West Enfield) to cover the application and processing fees.

Thank you for your attention to this filing. Please contact me at (207) 827-5364 with any questions.

Sincerely,



Scott D. Hall
Manager of Environmental Services

Enclosures

RECEIVED
MAINE D.E.P.

2004 JUN 14 P 2:43

DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Land and Water Quality
17 State House Station
Augusta, Maine 04333
Telephone: (207) 287-3901

FOR DEP USE

#L- _____
Fees Paid _____
Date Fees Received _____

**APPLICATION FOR PROJECT APPROVAL UNDER THE
MAINE WATERWAY DEVELOPMENT AND CONSERVATION ACT
AND
WATER QUALITY CERTIFICATION
(U.S. P.L. 92-500, SECTION 401)**

HYDROPOWER PROJECT CONSTRUCTION/RECONSTRUCTION

This form shall be used to request a state permit and Water Quality Certification for the proposed FERC licensing/relicensing and/or construction, reconstruction or structural alteration of a hydropower generating or storage project.

All required fees must be paid before application processing will begin. Please contact the Department for current fee schedule information. Fees are payable to Treasurer, State of Maine.

(Please Type or Print)

APPLICANT INFORMATION

Name of Applicant: **Bangor-Pacific Hydro Associates
c/o PPL Maine, LLC**

Mailing Address: **Davenport Street, P.O. Box 276 Milford, ME 04461**

Name of Contact or Agent: **Scott D. Hall**

Telephone: **(207)827-5364**

PROJECT INFORMATION

Name of Project: **West Enfield Project** FERC No. **2600**

Address (use "911" address, if available): **95 Dam Road**

Name of Waterbody Affected: **Penobscot River**

Municipality or Township: **Enfield and Howland** County: **Penobscot**

GPS Coordinates, if known: **Not Known**

REQUIRED INFORMATION

1. Provide all the information requested by this application form.
2. If applicant is a registered corporation, provide either a *Certificate of Good Standing* (available from the Secretary of State) or a statement signed by a corporate officer affirming that the corporation is in good standing. (See Attachment A)
3. A signed Certification of Publication and a completed Notice of Intent to File an application for Water Quality Certification.

NOTE: All supporting documents summarized above must be attached to this form and sent to the DEP Office listed below:

Department of Environmental Protection
Bureau of Land and Water Quality
17 State House Station
Augusta, ME 04333
Tel: (207) 287-3901

"I certify under penalty of law that I have personally examined the information submitted in this document and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the information is true, accurate, and complete. I authorize the Department to enter the property that is the subject of this application, at reasonable hours, including buildings, structures or conveyances on the property, to determine the accuracy of any information provided herein. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

DATE: 14 June 2004


SIGNATURE OF APPLICANT

(IF SIGNATURE IS OTHER THAN APPLICANT,
ATTACH LETTER OF AGENT AUTHORIZATION
SIGNED BY APPLICANT)

Scott D. Hall
Manager of Environmental Services

HYDROPOWER PROJECT CONSTRUCTION/RECONSTRUCTION

GENERAL INFORMATION

1. By submitting this application, an applicant requests approval under the Maine Waterway Development and Conservation Act (MWDCA) and the Federal Clean Water Act to undertake the construction, reconstruction, or structural alteration of a hydropower project.

The following types of activities, by way of example, are subject to the requirement for a permit:

- The construction of a new hydropower project, including a new water storage dam, or a new hydroelectric generating facility of any kind, whether utilizing a dam, a natural water feature, natural current velocities, or tidal action;
- The reconstruction of a hydropower project;
- The structural alteration of a hydropower project in ways which change water levels or flows above or below the dam, including, but not limited to:
 - The addition or alteration of flashboards; and
 - The installation of additional or enlarged turbines.

2. The purpose of this application form is to obtain from the applicant a thorough description of project facilities and operation and the impacts of the proposed construction, reconstruction or structural alteration on the environment.

The Department's Regulations provide that the applicant bears the burden of proof in the application process. This is the burden of presenting sufficient evidence for the Department to make the affirmative findings required by law regarding matters about which no questions are raised and the burden of presenting a preponderance of the evidence regarding matters about which questions are raised.

3. In order to grant an MWDCA permit, an applicant must demonstrate that seven specific criteria have been met (See Section 636 of the statute). These criteria address the following issues: financial capability and technical ability; public safety; public benefits; traffic movement; LURC zoning; environmental mitigation; and environmental and energy considerations.

In order to grant Water Quality Certification, the Department must conclude that there is a reasonable assurance that the continued operation of a hydropower generating or storage project will not violate applicable Water Quality Standards. These standards have been established in the State's Water Classification Program (Title 38 MRSA Sections 464-469). These standards designate the uses and related characteristics of those uses for each class of water and establish water quality criteria necessary to protect those uses and related characteristics.

4. Most proposals for the construction, reconstruction or structural alteration of a hydropower project will be subject to federal as well as state review and approval.

Any applicant for a FERC license must complete a three-stage consultation process with appropriate state and federal agencies. The purpose of this process is to identify and analyze the potential environmental and socioeconomic impacts of a project.

The consultation process requires an applicant to have either requested or obtained water quality certification at the time of filing with FERC. The process also requires that an applicant serve a copy of its FERC application, including any revisions, supplements or amendments thereto, on each of the agencies consulted.

Any applicant for a license, amendment of license, or exemption from the Federal Energy Regulatory Commission must complete a three-stage consultation process with appropriate state and federal agencies. The purpose of this process is to identify and analyze the potential environmental and socioeconomic impacts of a project.

FILING INSTRUCTIONS AND PROCEDURES

1. When filing, send an original plus one (1) copy of a completed Application for Project Approval to the Department, along with two (2) copies of any Application for Initial License or New License Amendment of License, or Exemption as has been or will be filed with FERC. The State filing can be made prior to or concurrent with the FERC filing.
2. The Department is required by law to assess fees for processing applications and for monitoring permit compliance. Application processing will not begin until all required fees have been paid. When filing, submit full fee payment (checks payable to: Treasurer of State) or request that a fee bill be sent.
3. A number of consulting agencies will be involved in the State review process of hydropower projects. Distribution of copies of the FERC application to these agencies may be coordinated by DEP or may be handled directly by the applicant. When filing, please notify the DEP staff to discuss distribution procedures.
4. Most information requested by this application form can be provided by making reference to the appropriate exhibit of the FERC license application. Space is provided on the form for such references.
5. Within 15 working days of receiving an application and all required fees, the DEP shall determine whether the application as filed is acceptable for processing.
6. Additional information may be required during the review process on any aspect of the project relating to compliance with applicable statutory criteria.

SECTION I PROJECT INFORMATION

State law requires that a permit be issued for the construction, reconstruction, or structural alteration of any hydropower project. This section is designed to obtain a thorough description of the proposed physical project, including all existing and proposed physical structures, construction activities, and project operation.

1. NATURE OF ACTIVITY. Check appropriate item:

☐ Construction of new hydropower project.

☒ Reconstruction or structural alteration of existing hydropower project.

IF THE PROPOSED PROJECT IS SUBJECT TO FERC JURISDICTION, A COPY OF A COMPLETED FERC APPLICATION FOR LICENSE OR EXEMPTION (THIRD STAGE CONSULTATION) MUST ACCOMPANY THIS FORM.

NOTE: A copy of any document revising, supplementing, amending, or correcting deficiencies in the application as originally filed with FERC must also be filed with D.E.P.

2. EXISTING ENVIRONMENT. Provide a description of the physical environment of the project site and its immediate vicinity. The project site includes all land and water areas affected by the proposed activity.

REFERENCE: FERC EXHIBIT(S) **Exhibit E**

3. PROJECT DESCRIPTION. Provide a detailed description of the existing project. A hydropower project includes all powerhouses, dams, water conduits, transmission lines, water impoundments, roads, and other appurtenant works and structures that are part of the development. This description must include:

- A. The physical composition, dimensions, and general configuration of all project structures, whether existing or proposed;
- B. The normal maximum surface area and elevation, gross storage capacity, and usable storage capacity of any project impoundments, whether existing or proposed;
- C. The number, type, and rated capacity of any project turbines or generators, whether existing or proposed; and
- D. The number, length, and voltage of any primary project transmission lines, whether existing or proposed.

REFERENCE: FERC EXHIBIT(S) **Exhibit A**

4. CONSTRUCTION ACTIVITIES. Provide a detailed construction schedule and a description of all proposed construction activities, to include:

- A. Location and physical dimensions of any areas proposed to be temporarily or permanently dredged, excavated or filled (including cofferdam areas, spoils disposal areas, and access roads);

- B. Composition and quantity of any material proposed to be dredged, excavated, or placed as fill on a temporary or permanent basis (including cofferdam, dredged or excavated spoils, and access road materials); and
- C. Proposed commencement and completion dates of any construction, reconstruction or structural alteration of project structures, including any associated dredging, excavation, or filling activities.

REFERENCE: FERC EXHIBIT(S) **Not applicable**

5. **PROJECT OPERATION.** Provide a description of project operation, to include:

- A. The mode of project operation during low, mean, and high water years, including extent and duration of flow release and impoundment fluctuations;
- B. An estimate of the dependable capacity and average annual energy production, in kilowatt hours, of the project;
- C. An estimate of minimum, mean, and maximum flows, in cubic feet per second, at the project site, including a flow duration curve;
- D. An estimate of the maximum and minimum hydraulic capacities, in cubic feet per second, of any power plant; and
- E. A statement of the manner in which the power generated at the project is utilized.

REFERENCE: FERC EXHIBIT(S) **Exhibit B**

6. **PROJECT PLANS.** Provide general design drawings showing all major project structures, whether existing or proposed, in sufficient detail to provide a full understanding of the project, including:

- A. Plans (overhead view);
- B. Elevations (front view);
- C. Profiles (side view) and
- D. Sections.

REFERENCE: FERC EXHIBIT(S) **Exhibit F**

7. **PROJECT MAPS.** Provide maps of the project showing:

- A. The location of the project structures and features, with reference to local geographic features; and
- B. A project boundary enclosing all principal project structures and features.

REFERENCE: FERC EXHIBIT(S) **Exhibit G**

8. **TITLE, RIGHT OR INTEREST.** The Department's Regulations require that any applicant must possess sufficient title, right or interest in all project lands and waters in order to have standing to seek a permit, license or certification. Please complete the appropriate item(s) below establishing title, right or interest and attach a copy of the indicated document(s):

_____ Deed.

☐ Option to buy.

☐ Lease.

☐ Valid FERC Preliminary Permit.

☒ Valid FERC License (including all amendments/modifications). (**Attachment B**)

☐ Exercise of flowage rights through operation of the Mill Act (12 M.R.S.A. Section 651).

☐ Exercise of eminent domain under FERC license.

Section II Review Criteria

The statute requires that seven criteria be satisfied before a permit will be issued. This section is designed to obtain information on these criteria, which require consideration of the following issues; financial capability and technical ability; public safety; public benefits; traffic movement; LURC zoning; environmental mitigation; and specified environmental and energy considerations.

9. FINANCIAL CAPABILITY.

- A. Provide a statement of the estimated total cost of the project, as proposed in this application, and itemize major categories of expenditures, including estimated costs of activities to be devoted to minimizing or preventing adverse effects on the environment during construction and/or operation of this project.
- B. Provide a statement that details plans for the financing of the project. If project costs involve more than normal legal and surveying fees, submit one of the following documents in support of the financing plan or indicate why such documents are unavailable at the present time:
 - i. A letter from a financial institution, governmental agency, or other funding agency which states a funding commitment or an "intent to fund" specifying the amount of funds and the uses for which the funds may be utilized; or
 - ii. The most recent corporate annual financial report and any supporting material indicating the availability of sufficient funds to finance the project; or
 - iii. Copies of financial statements or other evidence indicating availability of funds when the developer will personally finance the project.

NOTE: The state hydro law provides that in the event that an applicant is unable to demonstrate financial capability at the time of filing an application, a conditional permit may be granted requiring a demonstration of financial capability prior to the start of project construction. 38 M.R.S.A. Section 636(1).

REFERENCE: FERC EXHIBIT(S) **Exhibit D**

10. TECHNICAL ABILITY.

- A. Provide a description of the applicant's prior experience and/or appropriate training related to the nature of the proposed activity.
- B. Provide a description of the qualifications of personnel to be employed to install and/or operate and/or maintain the project.

REFERENCE: PPL Maine LLC, a subsidiary of PPL Generation LLC, owns seven hydroelectric projects, and has a 50 percent indirect stock ownership in an eighth project, with a combined generating capacity of about 45 megawatts. PPL Maine has owned, operated and maintained these stations since 1999; key environmental and engineering staff has extensive experience with the daily operation of and license compliance at these stations.

11. PUBLIC SAFETY.

- A. Provide a description of the activities or physical environment anticipated during project construction and/or operation that may constitute a hazard to the safety of the general public.
- B. Provide a detailed description of any provisions proposed to protect the safety of the general public during project construction and/or operation.

REFERENCE: FERC EXHIBIT(S) **No impact/Not applicable**

12. PUBLIC BENEFITS

Provide a description of the economic benefits and economic costs to the public anticipated as a result of the proposed project.

REFERENCE: **See Multiparty Settlement Agreement**

NOTE 1: See the DEP's Administrative Regulations for Hydropower Projects, Chapter 450, Section 5 for an interpretation of the public benefits criteria of the state hydro law and a definition of economic benefits and costs.

NOTE 2: In the event that it is determined that a proposed project involving a new dam would result in substantial economic costs, then the applicant must also provide evidence comparing the benefits of the proposed project against the economic conditions that would otherwise result from any alternative source(s) of energy generation or conservation that might reasonably be pursued in the event that the project is not built. See Chapter 450 Regulations.

13. TRAFFIC MOVEMENT.

- A. Provide a description of the present condition of the existing condition of the existing public and private access routes to the proposed project area, including the type, condition, and width of road surfaces and number of travel lanes.
- B. Provide a description of the anticipated and other possible impacts, if any, of the proposed project on any existing access routes (e.g., location and lengths of any access routes to be flooded by the project).
- C. Provide a description of the traffic movement anticipated to be generated by the proposed project, including types and average daily number of vehicles, travel routes, and duration of traffic movement.

REFERENCE: FERC EXHIBIT(S) **No impact/Not applicable**

14. LURC ZONING.

For any portion of the proposed project which is located within an unorganized territory or organized municipality subject to the jurisdiction of the Land Use Regulation Commission (LURC), provide a description of the applicable zoning designations and standards as adopted by LURC.

REFERENCE: FERC EXHIBIT(S) **Not applicable**

NOTE: In those instances where the project, or portions of the project, are prohibited uses under the zoning designation and standards in effect at the time of consideration, the applicant must file and obtain favorable action from LURC

on a rezoning petition or must amend the project to avoid conflicts with LURC's zoning. See Chapter 450 Regulations.

15. ENVIRONMENTAL MITIGATION.

Provide a description of any provisions proposed to realize the environmental benefits of the project or to mitigate the adverse environmental impacts of the project.

REFERENCE: FERC EXHIBIT(S) See **Multiparty Settlement Agreement**

NOTE: In-kind or on-site mitigation measures will be preferred. Off-site or out-of-kind mitigation measures may be acceptable where in-kind or on-site measures are demonstrated not to be feasible or desirable. See Chapter 450 Regulations.

16. WATER QUALITY.

- A. Provide a description of the applicable water quality standards and classification for the upstream and downstream waters which are affected or will be affected by the project.
- B. Provide a description of the existing water quality of the waters which are or will be affected by the project, including a description of existing in-stream water uses.
- C. Provide a description of the anticipated and other possible impacts the proposed project on existing water quality.

REFERENCE: FERC EXHIBIT(S) **Exhibit E**

NOTE: See Maine Water Classification Program, 38 M.R.S.A Sections 464-470.

17. SOIL STABILITY.

- A. Provide a description of the soils in the project area, including soil types and locations.
- B. Provide a description of the anticipated and other possible impacts of the proposed project on soil stability.

REFERENCE: FERC EXHIBIT(S) **Exhibit E**

18. COASTAL/INLAND WETLANDS.

- A. Provide a description of any coastal or inland wetlands located within the project area.
- B. Provide a description of the anticipated and other possible impacts of the proposed project on coastal or inland wetlands.

REFERENCE: FERC EXHIBIT(S) **Exhibit E**

19. NATURAL ENVIRONMENT.

- A. Provide a description of the natural environment within the project area, including a description of existing land uses, geological and topographic features, botanical resources, and aesthetic character.

B. Provide a description of the anticipated and other possible impacts of the proposed project on the existing natural environment, including but not limited to impacts on existing land uses, geological and topographic features, botanical resources, and aesthetic character.

REFERENCE: FERC EXHIBIT(S) **Exhibit E**

20. FISH AND WILDLIFE RESOURCES.

A. Provide a description of the existing fish and wildlife resources within the project area.

B. Provide a description of the anticipated and other possible impacts of the proposed project on existing fish and wildlife resources.

REFERENCE: FERC EXHIBIT(S) **Exhibit E**

21. HISTORIC/ARCHAEOLOGICAL RESOURCES.

A. Provide a description of the existing historic and archaeological resources within the project area.

B. Provide a description of the anticipated and other possible impacts of the proposed project on existing historic and archaeological resources.

REFERENCE: FERC EXHIBIT(S) **Exhibit E**

22. PUBLIC ACCESS AND USES.

A. Provide a description of the existing public access to and use of the surface waters in the project area for navigation, fishing, fowling, recreation and other lawful public uses, including a description of any existing recreational resources and facilities.

B. Provide a description of the anticipated and other possible impacts of the proposed project on public rights of access to and use of the surface waters in the project area, including the impacts on recreational resources and facilities.

REFERENCE: FERC EXHIBIT(S) **Exhibit E**

23. FLOOD CONTROL.

A. Provide a description of existing floodways and flood conditions within the project area.

B. Provide a description of any existing flood control projects within the affected drainage basin.

C. Provide a description of the anticipated and other possible flood control benefits or flood hazards of the proposed project.

REFERENCE: FERC EXHIBIT(S) **Exhibit B**

24. **ENERGY.** State the following:

	<u>Existing</u>	<u>Proposed</u>
A. Number of generating units:	2	2
B. Installed capacity, in kilowatts	13,000	13,000
C. Average annual energy output, in kilowatt hours	91,613	97,413

D.

E. Identity of proposed purchaser or user of project power:

New England Region

F. Amount of nonrenewable fuels anticipated to be replaced by the project power:

The estimated 6,412 MWh/yr of additional generation proposed will replace approximately 5,380 tons of coal, 10,870 barrels of oil, or 66 million cubic feet of natural gas. The resulting total fossil fuel replacement value of the project power will be approximately 82,270 tons of coal, 166,190 barrels of oil, or 1,010 million cubic feet of natural gas.

**SECTION III
PUBLIC NOTICE**

25. **PUBLIC NOTICE.** The Department requires that an applicant provide public notice describing the location and nature of the activity proposed for approval. The public notice requirements that apply to this application are described in the Certification of Publication below, which must be signed and dated by the applicant or authorized agent.

The following information must be submitted with this form:

- A copy of a completed Notice of Intent to File. (See Attachment C)
- A list of abutters to whom notice was provided. [For the purposes of public notice of this application, an "abutter" is any person who owns property that is both (1) adjoining and (2) within 1 mile of the delineated project boundary, including owners of property directly across a public or private right of way.] (See Attachment C)

For the purposes of this application, abutters also include:

- A. The owners of all property adjacent to the location of any activity associated with the construction, reconstruction, or structural alteration of a hydropower project as described in this application (including properties adjacent to any proposed dredging, excavating, filling, transmission lines, or access roads); and
- B. Where a new impoundment would be created or the full-pond elevation of an existing impoundment would be raised or lowered, abutters shall also include the owners of all property adjacent to the new or existing impoundment; and
- C. Where a new or increased diversion of by-pass of flows from their existing channel would be created, abutters shall also include the owners of all property adjacent to the new or existing diversion or by-pass channel.

CERTIFICATION OF PUBLICATION

By signing below, the applicant (or authorized agent) certifies that he or she has:

1. Published a Notice of Intent to File once in a newspaper circulated in the area where the project site is located, within 30 days prior to filing the application;
2. Sent a completed copy of the Notice of Intent to File by certified mail or Certificate of Mailing to abutters, as determined by local tax records or other means, within 30 days prior to filing the application; and
3. Sent a copy of the Notice of Intent to File by certified mail or Certificate of Mailing and filed a duplicate of this application with the town clerk of the municipality(ies) where the project is located, within 30 days prior to filing the application.



Signature of Applicant



Date

Scott D. Hall, Manager of Environmental Services

Name and title of applicant

If signature is other than that of the applicant, attach letter of agent authorization signed by the applicant.

ATTACHMENT A
CERTIFICATE OF GOOD STANDING



MAINE

Department of the Secretary of State

Bureau of Corporations, Elections and Commissions

Corporate Name Search

Information Summary

Subscriber activity report

This record contains information from the CEC database and is accurate as of: Thu Mar 25 2004 16:46:53. Please print or save for your records.

Legal Name	Charter Number	Filing Type	Status
PPL MAINE, LLC	19990136FC	LIMITED LIABILITY COMPANY (FOREIGN)	GOOD STANDING
Filing Date	Expiration Date	Jurisdiction	
01/26/1999	N/A	DELAWARE	
Other Names		(A=Assumed ; F=Former)	

PENOBSCOT HYDRO, LLC

F

Clerk/Registered Agent

C T CORPORATION SYSTEM
ONE PORTLAND SQUARE
PORTLAND, ME 04101

ATTACHMENT B
FERC LICENSE AND AMENDMENTS

COMM-OPINION-ORDER, 27 FERC ¶61,467, Bangor Hydro-Electric Company, Project Nos. 2600-001 and 2600-002, (June 26, 1984)

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Bangor Hydro-Electric Company, Project Nos. 2600-001 and 2600-002

[61,873]

[¶61,467]

Bangor Hydro-Electric Company, Project Nos. 2600-001 and 2600-002

Order Issuing New License (Major)

(Issued June 26, 1984)

Before Commissioners: Raymond J. O'Connor, Chairman; Georgiana Sheldon, A. G. Sousa and Oliver G. Richard III.

[61,874]

Bangor Hydro-Electric Company ("BHE" or "Applicant") has filed an application for a new license for its West Enfield Project, FERC Project No. 2600.¹ The project is located on the Penobscot River, a navigable waterway of the United States, in Penobscot County, Maine.

Present Design and Operation

The project presently consists of: (1) a 980-foot-long, 20-foot-high rock filled timber crib-dam, with 4-foot-high flashboards; (2) a 7.3-mile-long, 1,050-acre reservoir with a normal water surface elevation of 153.6 feet m.s.l.; (3) a 1,390-foot-long, 100 to 240-foot-wide power canal; (4) a powerhouse containing three units with a generating capacity of 3.5 MW; (5) an existing fishway; and (6) appurtenant facilities.

Proposed Design and Operation

The Applicant proposes to: (1) decommission an existing powerhouse and construct a new powerhouse containing turbine generators with a total rated capacity of 13 MW; (2) increase the hydraulic capacity of the power canal to accommodate the increased flows to the new powerhouse; (3) increase the project reservoir's normal water surface area by 24 acres to elevation 155.1 feet m.s.l., by increasing the height of the flashboards by 18 inches at the dam; (4) install two new fishways to replace the existing fishway; and (5) construct a new 800-foot-long, 46-kV transmission line.^{2 3 4}

Public Notice

Public notice of the application has been published and comments have been received from the United States Departments of the Interior ("Interior"), and Agriculture ("Agriculture"), the United States Environmental Protection Agency, the State of Maine Departments of Environmental Protection, Inland Fisheries and Wildlife, and Marine Resources, (hereinafter "fishery agencies"), and the Penobscot Indian Nation ("Nation"). No protests or petitions to intervene were filed. The significant concerns of the commenters are discussed below.

Penobscot Indian Reservation

In 1980, Congress enacted the Maine Indian Claims Settlement Act ("MICSA")⁵ to provide for the settlement of land claims within the State of Maine by a number of Indian tribes and nations, including the Penobscot Nation. Among other provisions, Section 5 of MICSA provides that the Nation will retain certain lands as reservations that were reserved to them under treaties with the State of Massachusetts.⁶ Section 5 also provides for the establishment of a fund to acquire privately held land for the Nation.⁷ Additionally, Section 1 of MICSA⁸ ratifies the Maine Implementing Act ("MIA"),⁹ which defines the relationship between the State of Maine and the Nation, including the jurisdictional and legal status of the Nation under State law.

The Applicant's proposal to increase the water surface elevation of the project reservoir by 1.5 feet would result in the inundation of approximately 24 acres of the Nation's reservation land that includes certain islands in the Penobscot River.

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The issue raised in this proceeding is whether the Applicant's proposal would affect "reservations" as it is defined in Section 3(2) of the Act.¹⁰

Because of the concerns raised respecting by the MICA, the Commission's Secretary on April 5, 1982 requested Interior, the Nation and the Applicant to provide their comments on the status of the Nation's lands that may be affected by BHE's proposal.

In response to this letter, Interior commented that title in fee simple to the Nation's lands affected by BHE's proposal is held by the State of Maine in trust for the benefit of the Nation. Interior also commented that under the MICA, these lands are subject to federal restrictions against alienation,¹¹ and require the consent of the Nation for a right-of-way easement.¹² The Nation originally stated that, while the lands are owned by them under recognized Indian title, the United States as provided in MICA, owns a proprietary interest in the affected reservation lands as trustee for the Nation. The Nation also stated that the lands are subject to the right-of-way provisions of 25 U.S.C. §§323-328. The Nation further commented that the lands affected by BHE's proposal are "reservations" as defined in Section 3(2) of the Act, and therefore are subject to annual charges. However, in a subsequent letter,¹³ the Nation stated that, while it did not agree with Interior's position that the lands affected by BHE's proposal are not a "reservation" within the meaning of Section 3(2), it did concur with Interior that the Applicant must obtain the consent of the Nation before a right-of-way can be granted.

The Applicant commented that the Nation's lands which would be affected by its proposal are owned in fee by the State of Maine with the right to exclusive possession in the Nation. The Applicant also stated that the United States owns no interest in these lands and that MICA did not change the status of these lands.

We find that the Nation's lands that would be affected by the Applicant's license

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proposal are not "reservations" of the United States within the meaning of Section 3(2) of the Act. Reservations as defined in Section 3(2) means in the context of this proceeding:

... national forests, tribal lands embraced within Indian reservations, and other lands and *interests* in lands *owned* by the United States, and withdrawn, reserved or withheld from private appropriation and disposal under the public land laws; also lands and interests in lands required and held for any public purpose . . . (Emphasis added).

Moreover, the Supreme Court, in its discussion of Section 3(2) in *F.P.C. v. Tuscarora Indian Nation*, 362 U.S. 99, 114 (1960), said that Congress intended that the United States either own the lands or have a proprietary interest in them before the lands qualified as a Section 3(2) reservation.

Our analysis of the legislative history of MICA confirms Interior's and the Applicant's beliefs that Congress did not intend that the United States either would own or have a proprietary interest in the proposed project lands which would be located within the Nation's existing reservation.¹⁴ The legislative history confirms that the only Nation's lands in which the United States would have an interest were those which were to be acquired after the enactment of MICA, and not the already existing reservations:¹⁵

The settlement envisions four categories of Indian land in Maine: individually assigned existing reservation land, existing reservation land held in common, newly-acquired tribal land within "Indian territory," and newly-acquired tribal land outside "Indian territory." *Only newly acquired land within Indian territory and newly-acquired land to be held in trust . . . will be taken in trust by the United States. Existing land within the reservations, whether held by individuals pursuant to a use assignment or in common by the Tribe as a whole, will not be taken by the United States in trust . . .*¹⁶ (Emphasis added).

While the Nation's lands which would be affected by the Applicant's proposal are located within existing reservation land as that term is defined in the MICA and the MIA,¹⁷ we find that they are not "reservations" within the meaning of Section 3(2) of the Act, inasmuch as the United States does not own or have a proprietary interest in the Nation's lands proposed for development here.

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We turn now to the question of whether the MICSA contemplates that the Applicant would secure the consent of the Nation for a right-of-way easement over the portion of reservation lands here involved.

MICSA indicates that such consent is an available means by which BHE could use the Nation's lands needed for project purpose. Section 5(g)(3) of MICSA¹⁸ provides that the Nation may, at its request, subject "land or natural resources within the . . . Penobscot Indian Territory"¹⁹ to rights-of-way under 25 U.S.C. §§323-328.²⁰ Nonetheless, a right-of-way easement is not the exclusive means by which the Applicant can obtain the necessary property rights to operate the project. Section 5(g)(2)(B) of MICSA²¹ authorizes the taking of lands within the Penobscot Indian Territory for public uses pursuant to laws of the United States. States. Indeed, Section 21 of the Act, which is the operative section for licensees initiating eminent domain proceedings respecting lands other than lands of the United States,²² authorizes licensees to condemn "the lands or property of others necessary to the construction, maintenance or operation of any" licensed project.²³ Thus, absent the Nation's consent, the Applicant has the authority to institute condemnation proceedings in order to obtain the property rights necessary to operate the project.

We believe, however, that BHE should make all reasonable efforts to reach an agreement with the Nation before instituting eminent domain proceedings respecting the Nation's lands needed for the project. Further, in light of the MICSA which resolved the Nation's and other Indian claims, we believe that until BHE has acquired the necessary rights to flood the Nation's lands, BHE should not operate the project by increasing the height of the flashboards by 1.5 feet; Article 41 so provides. Moreover, Article 41 requires the Applicant to consult and coordinate closely with the Nation in reaching an agreement over the use of the Nation's land. Nevertheless, we note that, should an agreement not be reached or should the agreement grant less than the right to use the reservation land in perpetuity,²⁴ then BHE may exercise its rights under Section 21 of the Act.²⁵

Federal Takeover

Section 14 of the Federal Power Act reserves to the United States the right to take over a non-publicly owned project upon expiration of the license, after paying the Licensee's net investment in the project, not to exceed the fair value of the property taken, plus any severance damages. No federal department or agency, state, or municipality has recommended takeover or redevelopment of the project by the United States or any other entity. The project is not in conflict with any project that has been authorized or is under study by the United States. There appears to be no reason why Federal takeover of the

[61,876]

project would better serve the public interest than would issuance of this license. Accordingly, we find that a federal takeover of this project is not appropriate.

Safety and Adequacy

The Staff of the New York Regional Office has inspected the project on June 29, 1982, and concluded that the project dam was not a risk to public safety provided it is properly maintained. The project dam is classified as a high hazard structure due to urban areas dispersed below the project. The proposed modifications to the project would have a negligible effect on the stability of the project dam. Staff has analyzed the stability of the timber crib dam and found it to be safe against sliding and stable under assumed loading conditions, including the PMF. The dam has passed a record flood of 106,815 cfs. The probable maximum flood is estimated to be 274,000 cfs. The proposed modifications to the project would have a negligible effect on the stability of the project dam.

We therefore conclude that the project, under the conditions included in the license articles, is safe and adequate.

Economic Feasibility

The staff has analyzed the economic feasibility of the installation of the new powerhouse at the project. Power generated by the project would be used to offset energy produced by fossil fuel plants. Based on this analysis, we conclude that the proposed project redevelopment is economical.

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Environmental Considerations

A. Fish Passage Facilities

1. Upstream

The Applicant has proposed to replace the existing fishway at the dam with two vertical slot fishways, one at the dam (spillway) and one at the powerhouse. The fishery agencies agreed on the need for the fishways and commented that such development would provide substantial improvement in upstream fish passage compared to existing conditions at the site. During the one-season construction period, when existing fish passage facilities would not be operable, the Applicant has agreed to assist the Maine Atlantic Sea Run Salmon Commission in trapping salmon at the downstream Veazie Dam (FERC Project No. 2403) for release upstream of the project. To ensure continued passage of salmon, Article 30 would require the Licensee to assist in the transportation of salmon upstream of the dam during the construction period.

Interior has recommended that fish-counting windows be installed at both fishways. The Applicant has opposed their installation, contending that the state agencies, which could normally monitor fish passage facilities at other Penobscot River projects, would not have sufficient personnel to count migrating fish at the windows. This issue and other final design features of the fish facilities should be resolved during further consultation between BHE and the fishery agencies in the development of the functional design drawings. Article 29 would require the Licensee to file functional design drawings of the proposed fish facilities, prepared in consultation with the U.S. Fish and Wildlife Service and other interested fishery agencies.

2. Downstream

Downstream fish passage facilities at the project would be necessary in the future when American shad and alewife populations increase in the Penobscot River. The Applicant has proposed initially to construct a 23-inch-diameter conduit, which would be used in the future to assist in downstream fish passage around the powerhouse. Interior has recommended that a deflector screen to guide fish to the conduit be installed during initial project construction. The Applicant has acknowledged that a deflector will be necessary in the future, but believed that construction at this time would be premature, due to the relatively small shad and alewife populations in the Penobscot River. The fishery agencies indicated that the screen could be installed in the future when the need had been determined.

We conclude that construction of the deflector screen should be delayed until a schedule for downstream fish passage facilities is shown. Article 15 reserves authority to require the construction and operation of such facilities when a schedule has been established. It further requires the Licensee to consult with the fishery agencies and reach a resolution on this matter.

B. Minimum Flows

Interior and the fishery agencies commented that BHE's proposed minimum flow release of 500 cfs at the dam (mostly leakage) would be adequate to protect the aquatic resources in the 1,500-foot-long section of the river between the dam and powerhouse. However, Interior and the Maine Department of Inland Fisheries and Wildlife (IFW) recommended that, if augmentation of dam leakage is required to meet the minimum flow release, the releases should be made adjacent to the spillway fishway.

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The agencies also want assurance that the project would be operated in a run-of-river mode. Interior and the IFW recommended that the Licensee be required to release a combined minimum flow from the dam and powerhouse of 2,250 cfs (mean August flow), while the Maine Department of Environmental Protection recommended a minimum flow of 2,725 cfs. The Applicant did not object to either flow.

We conclude that the flow releases noted above coupled with the conditions in this license would ensure protection of the aquatic environment. Article 31 would require the Licensee to comply with the conditions recommended by these agencies.²⁶

C. Recreational/Cultural Resources

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Interior commented that since the 2.3-acre tract of land reserved for recreational development by the Town of Enfield has not been leased or developed, the Applicant should submit a schedule for development and maintenance of recreational facilities at the site. The Maine Bureau of Parks and Recreation indicated that presently no need exists for increased recreational development.

We find that, since the need for recreational development has not been established, the Applicant should not be required to develop the site at this time. The site, however, should remain available for future recreational development. The Report on Recreational Resources, which reserves the 2.3 acres of project land for future recreational development, is approved herein. Article 32 requires the Licensee to file a drawing which delineates the location of the reserved lands. Additionally, Article 17 provides for the construction of recreational facilities at the site when the need has been demonstrated.

In accordance with our recent policy, Article 33, which requires protection measures for cultural resources, is included in this license, in the event any other future construction or development occurs at the project.

D. Other Environmental Impacts

The project would result in short-term increases in noise levels, dust, and exhaust emissions from construction activities, and sedimentation and erosion from disturbance of riverbed and land surfaces. The slight increase in headpond elevation would have a minimal effect on the terrestrial environment.

The fish-passage facilities proposed by BHE would enhance the migration of anadromous fish in the Penobscot River. Additionally, Article 31, concerning minimum flows, would ensure protection of the aquatic environment.

No Federally listed threatened or endangered species would be affected. Similarly, no sites or structures listed or proposed for listing in the National Register of Historic Places would be affected.

On the basis of the record and staff's analysis, we conclude that the issuance of a license for this project will not constitute a major Federal action significantly affecting the quality of the human environment.

Other Aspects of Comprehensive Development

The Planning Status Report for the Penobscot River Basin has been reviewed by the staff. The proposed redevelopment would not affect or be affected by any planned or future development in the river basin. The project would make good use of the flow and fall of the Penobscot River in the reach of the river of the project and, would therefore be best adapted to the comprehensive development of the basin upon compliance with the terms and conditions of the license.

License Term

The Applicant has requested that the Commission issue it a new 50-year license.

If total redevelopment were proposed to take place, a 50-year term would be appropriate as was done with the Central Maine Power Company's Brunswick-Topsham Project No. 2284.²⁷ Here, however, only new fishways and a new powerhouse, as well as modifications to the canal, are proposed to be installed utilizing the existing dam. We find the proposed scale of development is less than that which would warrant a full 50-year term. Therefore, pursuant to our policy for relicensing projects involving moderate redevelopment,²⁸ the license term for this project will be for a period of 40 years.

The Commission orders:

(A) The current license for the West Enfield Project No. 2600 is amended by changing its expiration date from December 31, 1987 to the last day of the month preceding the month in which this order is issued.

(B) This license is issued to Bangor Hydro-Electric Company under Part I of the Federal Power Act for a period of 40 years effective the first day of the month in which this license is issued, for the redevelopment and continued operation of the West Enfield Project No. 2600, located in Penobscot County, Maine on the Penobscot River, a navigable water of the

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United States. This license is further subject to the terms and conditions of the Act, which is incorporated by reference as part of this license, and subject to the regulations the Commission issues under the provisions of the Act.

(C) The West Enfield Project No. 2600 consists of:

(1) All lands, to the extent of the Licensee's interests in those lands, constituting the project area and enclosed by the project boundary. The project area and boundary are shown and described by a certain exhibit that forms part of the application for license and that is designated and described as:

Exhibit	FERC No.	Showing
G, Sheet 1	2600-18	Project Map (South)
G, Sheet 2	2600-19	Project Map (Central)
G, Sheet 3	2600-20	Project Map (North)
G, Sheet 4	2600-21	Transmission System

(2) Project works consisting of: (1) a 720-foot-long, 25-foot-high rock filled timber crib dam topped by 5.6-foot-high flashboards; (2) a 10-foot-long log sluice; (3) a 30-foot-long raft sluice gate section; (4) a 200-foot-long, 15-foot-high earth dam located on the west bank of Merrill Brook and the project reservoir containing three steel gates used to control flows to the Piscataquis River; (5) a 1,125-acre reservoir with a normal maximum water surface elevation of 155.1 feet m.s.l.; (6) an 800-foot-long power canal; (7) a powerhouse containing five turbine-generator units with a total rated capacity of 13,000 kW; (8) a tailrace channel approximately 1,000 feet long; (9) the 4.16-kV generator leads; (10) the 4.16/46-kV step-up transformer; (11) the 800-foot-long, 46-kV transmission line; (12) fish passage facilities at the project dam and at the project powerhouse; and (13) appurtenant facilities.

The location, nature and character of these project works are generally shown and described by the exhibit cited above and more specifically shown and described by certain other exhibits that also form a part of the application for license and that are designated and described as:

Exhibit	FERC No.	Showing
F, Sheet 1	2600-10	Existing Site Plan & Section
F, Sheet 2	2600-11	Existing Dam
F, Sheet 3	2600-12	Existing Powerhouse Plan & Section
F, Sheet 4	2600-13	Existing Fishway (Planned Site)
F, Sheet 5	2600-14	Plan and Section
F, Sheet 6	2600-15	Powerhouse Plan & Section
F, Sheet 7	2600-16	Fish Passages at Powerhouse & Dam
F, Sheet 8	2600-17	One-Line Diagram

Exhibit A--Consisting of three typewritten pages of text, paragraphs 3(b) through 5, describing project equipment, filed August 4, 1982.

Exhibit E--Section 5, consisting of three typewritten pages of text on recreational resources, filed August 4, 1982.

(3) All of the structures, fixtures, equipment, or facilities used or useful in the operation or maintenance of the project and located within the project boundary, all portable property that may be employed in connection with the project, located within or outside the project boundary, as approved by the Commission, and all riparian or other rights that are necessary or appropriate in the operation or maintenance of the project.

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(D) Exhibits F and G designated in paragraph (A) above are approved and made a part of the license only to the extent that they show the general location, description and nature of project works.

(E) Exhibits A and E (Section 5) designated above, are approved and made a part of the license.

(F) This license is also subject to the terms and conditions set forth in Form L-4 (revised October 1975), entitled "Terms and Conditions of License for Unconstructed Major Project Affecting Navigable Waters of the United States," attached to (reported at 54 FPC 1824) and made a part of this license. The license is also subject to the following additional articles.

Article 29. Licensee shall, within six months following issuance of this license, file for Commission approval detailed functional design drawings of the proposed upstream and downstream fish passage facilities at the West Enfield Project, prepared in consultation with the U.S. Fish and Wildlife Service, the Maine Department of Marine Resources, and the Maine Atlantic Sea Run Salmon Commission. Further, Licensee shall file with the Commission within six months after construction of the upstream fish passage facilities, as-built drawings.

Article 30. Licensee shall, during the period of construction at West Enfield Dam, assist the Maine Atlantic Sea Run Salmon Commission in transporting Atlantic salmon from the fish-trapping facilities at Veazie Dam to spawning locations upstream of West Enfield Dam, until such time as the fish passage facilities at the project are operational.

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Article 31. Licensee shall discharge a continuous minimum flow of 500 cubic feet per second (cfs) from the project dam and a combined flow of 2,725 cfs from the project dam and powerhouse, or inflow to the reservoir, whichever is less, for the purpose of protecting and enhancing aquatic resources in the Penobscot River. If augmentation of dam leakage is required to meet the required 500 cfs flow, releases shall be made adjacent to the spillway fishway. These flows may be temporarily modified if required by operating emergencies beyond the control of the Licensee, and for short periods for fishery management purposes upon mutual agreement between the Licensee and the Maine Department of Inland Fisheries and Wildlife.

Article 32. Licensee shall, within ninety days of completion of construction, file with the Commission a copy of the appropriate Exhibit G drawing delineating the location and acreage of project lands reserved for recreational development, as described in the approved Report on Recreational Resources.

Article 33. Prior to the commencement of any future construction or development of any project works or other facilities at the project, the Licensee shall consult and cooperate with the Maine State Historic Preservation Officer (SHPO) to determine the need for, and extent of any archeological or historic resource savings and any mitigative measures that may be necessary. The Licensee shall provide funds in a reasonable amount for any such work required. If any previously unrecorded archeological or historical sites are discovered during the course of construction or development of any project works or other facilities at the project, construction activity in the vicinity shall be halted, a qualified archeologist shall be consulted to determine the significance of the sites, and the Licensee shall consult with the SHPO to develop a mitigation plan for the protection of significant archeological or historic resources. If the Licensee and the SHPO cannot agree on the amount of money to be expended on archeological or historic work related to the project, the Commission reserves the right to require the Licensee to conduct, at its own expense, any such work found necessary.

Article 34. The Licensee shall pay the United States the following annual charge, effective the first day of the month in which this license is issued:

For the purpose of reimbursing the United States for the cost of administration of Part I of the Act, a reasonable amount as determined in accordance with the provisions of the Commission's regulations in effect from time to time. The authorized installed capacity for that purpose is 17,300 horsepower.

Article 35. Pursuant to Section 10(d) of the Act, a specified reasonable rate of return upon the net investment in the project shall be used for determining surplus earnings of the project for the establishment and maintenance of amortization reserves. One-half of the project surplus earnings, if any, accumulated under the license, in excess of the specified rate of return per annum on the net investment, shall be set aside in a project amortization reserve account at the end of each fiscal year. To the extent that there is a deficiency of project earnings below the specified rate of return per annum for any fiscal year under the license, the amount of that deficiency shall be deducted from the amount of any surplus earnings

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subsequently accumulated, until absorbed. One-half of the remaining surplus earnings, if any, cumulatively computed, shall be set aside in the project amortization reserve account. The amounts established in the project amortization reserve account shall be maintained until further order of the Commission.

The annual specified reasonable rate of return shall be the sum of the annual weighted costs of long-term debt, preferred stock, and common equity, as defined below. The annual weighted cost for each component of the reasonable rate of return is the product of its capital ratio and cost rate. The annual capital ratio for each component of the rate of return shall be calculated based on an average of thirteen monthly balances of amounts properly includable in the Licensee's long-term debt and proprietary capital accounts as listed in the Commission's Uniform System of Accounts. The cost rates for long-term debt and preferred stock shall be their respective weighted average costs for the year, and the cost of common equity shall be the interest rate on ten-year government bonds (reported as the Treasury Department's ten-year constant maturity series) computed on the monthly average for the year in question plus four percentage points (400 basis points).

Article 36. (a) In accordance with the provisions of this article, the Licensee shall have the authority to grant permission for certain types of use and occupancy of project lands and waters and to convey certain interests in project lands and waters for certain other types of use and occupancy, without prior Commission approval. The Licensee may exercise the authority only if the proposed use and occupancy is consistent with the purposes of protecting and enhancing the scenic, recreational, and other environmental values of the project. For those purposes, the Licensee

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shall also have continuing responsibility to supervise and control the uses and occupancies for which it grants permission, and to monitor the use of, and ensure compliance with the covenants of the instrument of conveyance for, any interests that it has conveyed, under this article. If a permitted use and occupancy violates any condition of this article or any other condition imposed by the Licensee for protection and enhancement of the project's scenic, recreational, or other environmental values, or if a covenant of a conveyance made under the authority of this article is violated, the Licensee shall take any lawful action necessary to correct the violation. For a permitted use or occupancy, that action includes, if necessary, cancelling the permission to use and occupy the project lands and waters and requiring the removal of any non-complying structures and facilities.

(b) The types of use and occupancy of project lands and waters for which the Licensee may grant permission without prior Commission approval are: (1) landscape plantings; (2) non-commercial piers, landings, boat docks, or similar structures and facilities that can accommodate no more than ten watercraft at a time where said facility is intended to serve single-family type dwellings; and (3) embankments, bulkheads, retaining walls, or similar structures for erosion control to protect the existing shoreline. To the extent feasible and desirable to protect and enhance the project's scenic, recreational, and other environmental values, the Licensee shall require multiple use and occupancy of facilities for access to project lands or waters. The Licensee shall also ensure, to the satisfaction of the Commission's authorized representative, that the uses and occupancies for which it grants permission are maintained in good repair and comply with applicable State and local health and safety requirements. Before granting permission for construction of bulkheads or retaining walls, the Licensee shall: (1) inspect the site of the proposed construction, (2) consider whether the planting of vegetation or the use of riprap would be adequate to control erosion at the site, and (3) determine that the proposed construction is needed and would not change the basic contour of the reservoir shoreline. To implement this paragraph (b), the Licensee may, among other things, establish a program for issuing permits for the specified types of use and occupancy of project lands and waters, which may be subject to the payment of a reasonable fee to cover the Licensee's costs of administering the permit program. The Commission reserves the right to require the Licensee to file a description of its standards, guidelines, and procedures for implementing this paragraph (b) and to require modification of those standards, guidelines, or procedures.

(c) The Licensee may convey easements or rights-of-way across, or leases of, project lands for: (1) replacement, expansion, realignment, or maintenance of bridges and roads for which all necessary state and federal approvals have been obtained; (2) storm drains and water mains; (3) sewers that do not discharge into project waters; (4) minor access roads; (5) telephone, gas, and electric utility distribution lines; (6) non-project overhead electric transmission lines that do not require erection of support structures within the project boundary; (7) submarine, overhead, or underground major telephone distribution cables or major electric distribution lines (69-kV or less); and (8) water intake or pumping facilities that do not extract more than one million gallons per day from a project reservoir. No later than January 31 of each year, the Licensee shall file three copies of a report briefly describing for each conveyance made under this paragraph (c) during the prior calendar year, the type of interest conveyed, the location of the lands subject to the conveyance, and the nature of the use for which the interest was conveyed.

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(d) The Licensee may convey fee titles to, easements or rights-of-way across, or leases of project lands for: (1) construction of new bridges or roads for which all necessary state and federal approvals have been obtained; (2) sewer or effluent lines that discharge into project waters, for which all necessary federal and state water quality certificates or permits have been obtained; (3) other pipelines that cross project lands or waters but do not discharge into project waters; (4) non-project overhead electric transmission lines that require erection of support structures within the project boundary, for which all necessary federal and State approvals have been obtained; (5) private or public marinas that can accommodate no more than ten watercraft at a time and are located at least one-half mile from any other private or public marina; (6) recreational development consistent with an approved Exhibit R or approved report on recreational resources of an Exhibit E; and (7) other uses, if: (i) the amount of land conveyed for a particular use is five acres or less; (ii) all of the land conveyed is located at least 75 feet, measured horizontally, from the edge of the project reservoir at normal maximum surface elevation; and (iii) no more than 50 total acres of project lands for each project development are conveyed under this clause (d)(7) in any calendar year. At least 45 days before conveying any interest in project lands under this paragraph (d), the Licensee must file a

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letter to the Director, Office of Electric Power Regulation, stating its intent to convey the interest and briefly describing the type of interest and location of the lands to be conveyed (a marked Exhibit G or K map may be used), the nature of the proposed use, the identity of any federal or state agency official consulted, and any Federal or State approvals required for the proposed use. Unless the Director, within 45 days from the filing date, requires the Licensee to file an application for prior approval, the Licensee may convey the intended interest at the end of that period.

(e) The following additional conditions apply to any intended conveyance under paragraph (c) or (d) of this article:

(1) Before conveying the interest, the Licensee shall consult with Federal and State fish and wildlife or recreation agencies, as appropriate, and the State Historic Preservation Officer.

(2) Before conveying the interest, the Licensee shall determine that the proposed use of the lands to be conveyed is not inconsistent with any approved Exhibit R or approved report on recreational resources of an Exhibit E; or, if the project does not have an approved Exhibit R or approved report on recreational resources, that the lands to be conveyed do not have recreational value.

(3) The instrument of conveyance must include covenants running with the land adequate to ensure that: (i) the use of the lands conveyed shall not endanger health, create a nuisance, or otherwise be incompatible with overall project recreational use; and (ii) the grantee shall take all reasonable precautions to ensure that the construction, operation, and maintenance of structures or facilities on the conveyed lands will occur in a manner that will protect the scenic, recreational, and environmental values of the project.

(4) The Commission reserves the right to require the Licensee to take reasonable remedial action to correct any violation of the terms and conditions of this article, for the protection and enhancement of the project's scenic, recreational, and other environmental values.

(f) The conveyance of an interest in project lands under this article does not in itself change the project boundaries. The project boundaries may be changed to exclude land conveyed under this article only upon approval of revised Exhibit G or K drawings (project boundary maps) reflecting exclusion of that land. Lands conveyed under this article will be excluded from the project only upon a determination that the lands are not necessary for project purposes, such as operation and maintenance, flowage, recreation, public access, protection of environmental resources, and shoreline control, including shoreline aesthetic values. Absent extraordinary circumstances, proposals to exclude lands conveyed under this article from the project shall be consolidated for consideration when revised Exhibit G or K drawings would be filed for approval for other purposes.

Article 37. The Licensee shall review and approve the design and construction procedures for contractor designed cofferdam and deep excavations prior to the start of construction and shall ensure that construction of cofferdams and deep excavations are consistent with the approved design. At least 30 days prior to start of construction of the cofferdam, the Licensee shall provide to the Commission's Regional Engineer and Director, Office of Electric Power Regulation, one copy of the approved cofferdam construction drawings and specifications and a copy of the letter(s) of approval.

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Article 38. The Licensee shall provide to the Commission's Regional Engineer and the Director, Office of Electric Power Regulation, one copy each of the contract drawings and specifications for pertinent features of the project such as water retention structures, powerhouse and water conveyance structures, at least 60 days prior to start of construction. The Director, Office of Electric Power Regulation, may require changes to the plans and specifications to ensure a safe and adequate project.

Article 39. The Licensee shall within 90 days of completion of construction file, for approval of the Director, Office of Electric Regulation, revised Exhibits A, F and G to describe and show the project as-built. The Exhibit G drawing shall delineate the location and acreage of project lands reserved for recreational development as described in the Exhibit E Report on Recreational Resources.

Article 40. Licensee shall commence construction of the proposed project within two years of the date of issuance of the license and shall complete construction within five years from the issuance date of this order.

Article 41. The Licensee shall not operate the project with 5.6-foot-high flashboards at crest elevation 155.1 feet m.s.l., until the Licensee has acquired the necessary rights to flood the Penobscot Indian Nation's lands by such operation.

(G) This order is final unless an application for rehearing is filed within 30 days from the date of its issuance, as provided in Section 313(a) of the Federal Power Act. The filing of an application for rehearing does not operate as a stay of the effective date of

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this license or any other date specified in this order, except as specifically ordered by the Commission. The Licensee's failure to file an application for rehearing shall constitute acceptance of this license and its terms and conditions, it shall be signed for the Licensee and returned to the Commission within 60 days from the date this order is issued.

— Footnotes —

¹ The current license for the Stanford Project was issued on February 3, 1970 [43 FPC 132], with an effective date of January 1, 1983. In its application, BHE asks the Commission to change the name of the Stanford Project to the West Enfield Project. By this order, we will grant Bangor's request.

² The redeveloped project would generate an additional 52,700,000 kWh annually, saving the equivalent of 86,500 barrels of oil or 24,400 tons of coal. Total annual generation would increase to 73,200,000 kWh.

³ BHE's application for a new license was filed concurrently with its application to amend its existing license by advancing the December 31, 1987 license expiration date to "coincide with the effective date of a new license for the proposed facilities." BHE's license application was accepted for filing August 30, 1982, and was given public notice on September 24, 1982 (amended notice superseding a previous notice issued September 2, 1982). On September 30, 1982, the Commission ruled, in *Niagara Mohawk Power Corp.*, 20 FERC ¶61,454, that it would not accept conditional hydroelectric filings, in light of its statutory obligation to ensure opportunity for meaningful competition. Prior to that ruling, there had been no Commission policy on the issue of conditional filings. See *Central Maine Power Co.*, 6 FERC ¶61,122 (1979) n. 6 (expressly reserving issue for future disposition). The Commission could properly find that, in light of the public interest considerations against conditional filings (as articulated in the *Niagara Mohawk* case), it is appropriate to apply its new policy to a proceeding initiated before articulation of the policy. See e.g., *United States v. Midwest Video Corp.*, 406 U.S. 649, at 673-74 (1972). However, since the September 24 notice expressly invited competing applications, as well as recommendations for federal takeover, since no competing applications or takeover recommendations were filed, and inasmuch as we find the amendment and new license to be in the public interest, we believe that it is not necessary to require BHE to refile its application without conditions in order to preserve the principles expressed in the *Niagara Mohawk* case.

⁴ A more detailed project description is contained in Ordering Paragraph (C).

⁵ 25 U.S.C. §1721, *et seq.* (1982).

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⁶ See H.R. Rep. No. 1353, 96th Cong., 2d Sess. 46 reprinted in 1980 U.S. Code Cong. & Ad. News. 3794. See also 25 U.S.C. §1724 (1982).

⁷ *Id.*

⁸ 25 U.S.C. §1721(b)(3).

⁹ See Me. Rev. Stat. Ann. tit. 30 (1981), "An Act to Implement the Maine Indian Claims Settlement."

¹⁰ 16 U.S.C. §796(2) (1976).

¹¹ Citing 25 U.S.C. §1724(g)(2) (1982).

¹² Citing 25 U.S.C. §1724(g)(3)(D) (1982).

¹³ See letter dated May 27, 1983.

¹⁴ 25 U.S.C. §1722(i) refers to the MIA for the definition of the Penobscot Indian Reservation ("PIR") (Me. Rev. Stat. Ann. tit. 30, §§6201-14 (1981)). There, the PIR is defined as the islands in the Penobscot River reserved to the Penobscot Nation by agreement with the States of Massachusetts and Maine consisting solely of Indian Island, . . . and all islands in said river northward thereof that existed on June 29, 1818 . . . (Title 30, Section 6203(8)).

¹⁵ While Section 5(g)(2) of MISCA, 25 U.S.C. §1724(g)(2), subjects the Nation's land to a federal restriction against alienation, we note that such restriction does not create a proprietary interest in the United States. (See *F.P.C. v. Tuscarora*, *supra*, at pp. 114-115).

¹⁶ See H.R. Rep. No. 1353, 96th Cong., 2d Sess. 46, reprinted in 1980 U.S. Code Cong. & Ad. News 3791. See also p. 3794.

¹⁷ See Me. Rev. Stat. Ann. tit. 30 §6203(8) (1981).

¹⁸ 25 U.S.C. §1724(g)(3) (1982).

¹⁹ The Penobscot Indian Reservation is covered within the definition of the Penobscot Indian Territory. (See Me. Rev. Stat. Ann. tit. 30 §6205 (2A) (1981)).

²⁰ Generally, the rights-of-way provisions require the consent of the proper tribal officials before rights-of-way can be granted, and empower the Secretary of Interior with the authority to prescribe conditions and determine the compensation for such right-of-way grants. 25 U.S.C. §326 provides that §§323-28 of that title do not in any manner amend or repeal the provisions of the Federal Water Power Act of 1920 (41 Stat. 1063) as amended by the Act of August 26, 1935 (49 Stat. 838). However, §326 would not preclude a right-of-way in this proceeding, because the lands involved here are neither reservations nor other lands of the United States.

²¹ 25 U.S.C. §1724(g)(2)(B). Similarly, Section 6205(4) of the MIA prescribes a mechanism by which lands within the Nation's reservations can be taken for public uses in accordance with the laws of the United States.

²² 16 U.S.C. §814 (1982).

²³ In its discussion of Section 4(e) of the Act, the Supreme Court in *F.P.C. v. Tuscarora*, *supra*, at 118, said that, "[t]he Act gives every indication that within its comprehensive plan, Congress intended to include lands owned or occupied by any person or persons, including Indians." We do not believe that MICA limits BHE's authority to condemn the Nation's

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lands here involved, inasmuch as MICSA clearly authorizes such taking under the laws of the United States.

²⁴ See, e.g., *New York State Electric & Gas Corporation*, 16 FERC ¶61,176 (1981); and *Niagara Mohawk Power Corporation*, 16 FERC ¶61,180 (1981).

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²⁵ 16 U.S.C. §814 (1982). Further, as stated above, MICSA authorizes the taking of land or natural resources within the Nation's reservation "for public uses pursuant to the laws of the United States." 25 U.S.C. §1724(g)(2)(B) (1982).

²⁶ The Maine Department of Environmental Protection issued a Water Quality Certification on October 27, 1982.

²⁷ See *Central Maine Power Company*, 6 FERC ¶61,122 (1979).

²⁸ See *New York State Electric & Gas Corporation*, 16 FERC ¶61,176 (1981); *Montana Power Company*, 56 FPC 2008 (1976).

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Bangor Hydro-Electric Company, Project No. 2600-001

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Bangor Hydro-Electric Company, Project No. 2600-001

Errata Notice

(Issued September 14, 1984)

Kenneth F. Plumb, Secretary.

The order Issuing New License (Major), issued on June 26, 1984 [27 FERC ¶61,467], for the West Enfield Project No. 2600 is revised as follows:

Page 12, Ordering Paragraph (C)(2) is revised to read:

(2) Project works consisting of: (1) a 720-foot-long, 20-foot-high rock filled timber crib dam topped by 5.6-foot-high flashboards; (2) a 200-foot-long, 15-foot-high earth dam located on the west bank of Merrill Brook and the project reservoir containing three steel gates used to control flows to the Piscataquis River; (3) a 1,125-acre reservoir with a normal maximum water surface elevation of 155.1 feet m.s.l.; (4) an 800-foot-long power canal; (5) a powerhouse containing five turbine-generator units with a total rated capacity of 13,000 kW; (6) a tailrace channel approximately 1,000 feet long; (7) the 4.16-kV generator leads; (8) the 4.16/46-kV step-up transformer; (9) the 800-foot-long, 46-kV transmission line; (10) fish passage facilities at the project dam and at the project powerhouse; and (11) appurtenant facilities.

OD-ORDER, 36 FERC ¶62,035, Bangor Hydro Electric Company, Project No. 2600-006, (July 15, 1986)

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Bangor Hydro Electric Company, Project No. 2600-006

[63,074]

[¶62,035]

Bangor Hydro Electric Company, Project No. 2600-006

Order Amending License

(Issued July 15, 1986)

Richard T. Hunt, Director, Office of Hydropower Licensing.

Bangor Hydro Electric Company has filed an application for amendment of its license for the West Enfield Project No. 2600. The project is located on the Penobscot River in Penobscot County, Maine.

The license for this project was issued on June 26, 1984 [27 FERC ¶61,467]. The project as licensed consists of a timber dam with 5.6 foot high flashboards, an impoundment with a normal surface elevation of 155.1 feet mean sea level, an 800 foot long canal, a powerhouse with 5 units with a total installed capacity of 13 MW, a 1,000 foot long tailrace, an 800 foot long transmission line, and fish passage facilities at the dam and the powerhouse. The licensee requests that the project description be amended as shown in Ordering Paragraph A below.

Notice of the application has been published. The motions to intervene that have been granted and the comments filed by agencies and individuals have been fully considered in determining whether to grant this amendment, as discussed below.

Summary of Findings

An Environmental Assessment (EA) was issued for this project, as amended. Background information, analysis of impacts, support for related license articles, and the basis for a finding of no significant impact on the environment are contained in the EA attached to this order. Issuance of this order is not a major Federal action significantly affecting the quality of the human environment.

The design of this project is consistent with the engineering standards governing dam safety. The project will be safe if constructed, operated, and maintained in accordance with the requirements of this license. Analysis of related issues is provided in the Safety and Design Assessment attached to this order.

The Director, Office of Hydropower Licensing, concludes that the project, as amended, would not conflict with any planned or authorized development, and would be best adapted to comprehensive development of the waterway for beneficial public uses.

The Director orders:

(A) Paragraph (C)(2) of the license (27 FERC ¶61,467, at page 61,878) is amended as follows:

(2) Project works consisting of: (a) a 39 foot high concrete dam surmounted by 6 foot high flashboards composed of a 194 foot long non-overflow spillway, a 107 foot long gated spillway, and a 363 foot long overflow spillway surmounted by 6 foot high flashboards; (b) a reservoir with a storage capacity of 11,250 acre-feet and a normal surface elevation of 155.1 feet mean sea level; (c) a powerhouse at the dam with 2 turbine-generator units with a total installed capacity of 13 MW; (d) a vertical slot fish ladder at the powerhouse; (e) a 1,100 foot long tailrace; (f) the 13.8 kV generator leads; (g) the 13.8/46 kV, 20 MVA step-up transformer; (h) a 1,400 foot long, 46 kV overhead transmission line; and (i) other appurtenances.

(B) The project works generally described above are more specifically shown and described by those portions of Exhibits A and F which are part of the license and the portions of Exhibits A and F recommended for approval in the attached Safety and Design Assessment.

(C) The Exhibit drawings superseded in the attached Safety and Design Assessment are removed from the license.

(D) License articles 29, 30, and 31 are amended as follows:

Article 29. The licensee shall file for Commission approval, within 6 months after issuance of this amendment of license,

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functional design drawings of the proposed upstream and downstream fish passage facilities at the West Enfield Project, prepared after consultation with the U.S. Fish and Wildlife Service, the Maine Department of Marine Resources, the Maine Atlantic Sea Run Salmon Commission, and the Penobscot Indian Nation. Comments of these groups on the proposed designs shall be included in the filing. The licensee shall file as-built drawings of the fish passage facilities within 6 months after completion of construction.

Article 30. The licensee shall file with the Commission, within 3 months after issuance of this amendment of license, a plan to maintain upstream fish passage facilities during the project construction period, prepared after consultation with the U.S. Fish and Wildlife Service, the Maine Atlantic Sea Run Salmon Commission, the Maine Department of Marine Resources, and the Penobscot Indian Nation. The plan shall include details for scheduling construction work and for shutting down the existing fish passage facilities in relation to the migratory periods of Atlantic salmon and other anadromous species. The consulted groups' comments on the plan shall be included in the filing.

Article 31. The licensee shall operate the West Enfield Project in an instantaneous run-of-river mode for the protection of fish and wildlife resources in the Penobscot River. The licensee, in operating the project in an instantaneous run-of-river mode, shall at all times act to minimize the fluctuation of the reservoir surface elevation by maintaining a sufficient discharge from the project so that the flow in the Penobscot River, as measured immediately downstream from the project tailrace, approximates the instantaneous sum of the inflow to the project reservoir. Instantaneous run-of-river operation may be temporarily modified if required by operating emergencies beyond the control of the licensee and for short periods upon mutual agreement by the licensee and the Maine Department of Inland Fisheries and Wildlife, the Maine Atlantic Sea Run Salmon Commission, and the Maine Department of Marine Resources.

(E) The license is also subject to the following articles:

Article 42. The licensee, after consultation with the Maine Department of Environmental Protection, Maine Department of Marine Resources, Maine Sea Run Salmon Commission, and U.S. Fish and Wildlife Service, shall file with the Commission, at least 60 days prior to excavation of the tailrace, a detailed and comprehensive plan to control erosion, sedimentation, and turbidity resulting from project construction and operation, including cofferdam construction and removal and excavation, dredging, and spoil disposal activities.

The plan shall include functional design drawings and topographic map locations of control measures, an implementation schedule, monitoring and maintenance programs for project construction and operation, and provisions for periodic review of the plan and for making any necessary revisions to the plan. The licensee shall include in the filing documentation of agency consultation on the plan and copies of any agency comments or recommendations.

In the event the licensee does not concur with any agency comments or recommendations, the licensee shall provide a discussion of the reasons for not concurring, based on actual-site geological, soil, and groundwater conditions. The Commission reserves the right to require changes to the plan. Unless the Director of the Office of Hydropower Licensing directs otherwise, the licensee may begin excavation of the tailrace 90 days after filing this plan.

Article 43. The licensee shall discharge from the West Enfield Project a continuous minimum flow of 500 cubic feet per second, as measured immediately downstream of the project dam, or the inflow to the reservoir, whichever is less, for the protection of aquatic habitat in the Penobscot River immediately below the project dam. This flow may be temporarily modified if required by operating emergencies beyond the control of the licensee, as required for habitat studies conducted under article 44, and for short periods upon mutual agreement by the licensee and the Maine Department of Inland Fisheries and Wildlife, the Maine Atlantic Sea Run Salmon Commission, and the Maine Department of Marine Resources.

Article 44. The licensee shall file for Commission approval within 3 months after issuance of this amendment of license, a plan and schedule for: (a) investigating the effectiveness of the minimum flow required by article 43 to maintain Atlantic salmon habitat immediately below the project dam, and (b) evaluating the licensee's proposed Atlantic salmon habitat manipulations below the dam, prepared after consultation with the U.S. Fish and Wildlife Service, the Maine Atlantic Sea

Run Salmon Commission, and the Penobscot Indian Nation. The comments of these consulted groups on the study plan shall be included in the filing. The Commission reserves the authority to require modifications to the plan.

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The licensee shall conduct the study according to the approved plan, and within 4 years from the issuance of the amendment of license, the licensee shall file a report on the results of the study, and shall file for Commission approval, recommendations for permanent measures to protect Atlantic salmon habitat immediately below the project dam. The licensee shall include in the filing comments of the consulted groups on the report and the recommendations of the groups.

Article 45. The licensee shall file with the Commission, within 1 year after issuance of this amendment of license, the final design of an Atlantic salmon smolt stockout pond to be constructed at the project, prepared after consultation with the U.S. Fish and Wildlife Service, the Maine Atlantic Sea Run Salmon Commission, and the Penobscot Indian Nation. The comments of these groups on the proposed design shall be included in the filing. The licensee shall file as-built drawings of the stockout pond within 6 months after completion of construction.

(F) This order is issued under authority delegated to the Director and is final unless appealed under Rule 1902 to the Commission by any party within 30 days from the issuance date of this order. Filing an appeal does not stay the effective date of this order or any date specified in this order. The licensee's failure to appeal this order shall constitute acceptance of the license.

Environmental Assessment ¹

Division of Environmental Analysis, Office of Hydropower Licensing

Federal Energy Regulatory Commission

West Enfield Project

FERC Project No. 2600 006--Maine

June 20, 1986

I. Application

On March 21, 1986, Bangor Hydro Electric Company (licensee) filed an application for amendment of license for the West Enfield Project. The project is located on the Penobscot River, in the towns of Enfield and Howland, in Penobscot County, Maine, approximately 4,000 feet upstream from the confluence of the Piscataquis River with the Penobscot River (figure 1). Parts of the project are located on lands of the Penobscot Indian Nation Reservation.

II. Resource Development

A. Purpose

The amended project would provide an estimated average of 80,000,000 kilowatt-hours (kWh) of electrical energy per year to the licensee.

B. Need for Power

The project could provide a small portion of projected resource requirements for the New England Power Pool (NEPOOL) area. The staff's economic analyses show that benefits are possible through installation of the project and, therefore, show a need for the project. From the time the project goes on line until needed to serve load directly, it would be available to off-load existing fossil-fueled electric generating plants located in the NEPOOL and adjacent areas, and thereby, to conserve non-renewable resources and to reduce the emission of noxious by-products caused by the combustion of fossil fuels.

C. Economic Analysis and Alternatives

The licensee estimates the cost of the project to be \$26,300,000 and provides a summary of their cost estimate showing

the costs of various components of the project. The licensee's cost estimate is reasonable for a development of this size and type.

The licensee states that its most likely alternative supply of power would be to purchase oil-fueled capacity.

Purchases of oil-fueled capacity in the region are estimated at levelized cost of 84.5 mills/kWh. Since the levelized cost of the project is estimated at 66.8 mills/kWh, the staff is confident that there will be a need for the project and that the project would offset power purchases by the licensee.

The proposed project is potentially feasible so long as its projected levelized costs are less than the levelized costs of oil-fueled plants in the region.

D. Comprehensive Development

The amended run-of-river project would have two horizontal pit units that would use river flow up to 9,000 cubic feet per second (cfs). The units would operate under a gross head of 22.3 feet. The choice of unit type is appropriate for the site with respect to the available head and flow. Each turbine would be connected to a 7,390 kilowatt (kW) generator and the licensee estimates that 80,000,000 kWh would be generated annually.

The staff's studies show that the estimated average energy generation is reasonable for the available flow, minimum flow releases, and head at the site, and that installation of additional capacity above the 14,780 kW is not economically feasible at this time.

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The amended project would not conflict with any existing or proposed development on the Penobscot River.

III. Proposed Project and No Action Alternative

A. Proposed Project

The project presently consists of: (1) a 90 foot long, 20 foot high timber crib dam with 4 foot high flashboards; (2) a 7.3 mile long, 1,050 acre reservoir with a normal water surface elevation of 153.6 feet mean sea level (m.s.l.); (3) a 1,390 foot long power canal, varying in width from 100 to 240 feet; (4) a powerhouse, at the power canal, containing three units each with a generating capacity of 3.5 megawatts (MW); and (5) an existing fishway (Bangor Hydro Electric Company, 1982).

Licensed Project

On June 26, 1984, the licensee was authorized to make the following changes: (1) replace the existing powerhouse with a new 15,000 square foot powerhouse at the power canal, containing five generating units with a total capacity of 13 MW; (2) increase the reservoir's normal surface elevation to 155.1 feet m.s.l. by increasing the height of the flashboards by 1.5 feet; (3) install two fishways to replace the existing fishway; (4) construct a new 800 foot long, 46 kilovolt (kV) transmission line; (5) increase the hydraulic capacity of the existing canal; and (6) rehabilitate the canal embankment (figure 2) (Federal Energy Regulatory Commission, 1984). The licensee was required to release a minimum flow of 500 cfs from the dam and a combined minimum flow from the dam and powerhouse of 2,725 cfs. The licensee has not carried out the authorized changes.

Proposed Project

In place of the authorized changes, the licensee proposes to: (1) replace the existing dam with a new 515 foot long dam, consisting of a 45 foot long non overflow spillway, a 107 foot long gated spillway, and a 363 foot long overflow spillway surmounted by 6 foot high flashboards; (2) increase the normal surface elevation of the reservoir to 155.1 feet m.s.l.; (3) construct a powerhouse at the dam with two turbine-generator units with a total installed capacity of 13 MW; (4) install a vertical-slot fish ladder at the powerhouse; (5) excavate a 1,100 foot long tailrace; (6) construct a 46 kV, 1,400 foot long transmission line; (7) decommission the existing headgate, powerhouse, and tailrace structures; (8) construct a temporary access road across the power canal to facilitate construction activities and to maintain operation of the existing fishway during construction; (9) construct a smolt release pond in the existing power canal; and (10) fill the remainder of the canal (figure 3) (Bangor Hydro Electric Company, 1986a). The amended project would operate in a run-of-river mode.

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B. Alternative of No Action

Under this alternative, the proposed project would not be developed. In its place, the licensee would develop the project licensed by the Commission on June 26, 1984.

IV. Consultation and Compliance

A. Agency Consultation

Commission regulations require prospective applicants to consult with the appropriate resource agencies before filing an application for amendment of the license. This consultation constitutes an initial step in compliance with the Fish and Wildlife Coordination Act, the Endangered Species Act, the National Historic Preservation Act, and other Federal statutes. Prefiling consultation must be complete and documented in accordance with the Commission's regulations.

After the Commission accepts the application, formal comments may be submitted by concerned entities during the public notice period. In addition, organizations and individuals may petition to intervene and become a party of any subsequent proceedings. The comments provided by concerned entities are made part of the record and are considered during the review of the proposed project. The following entities commented on the application subsequent to the public notice, which was issued on April 18, 1986.

Commenting entity--Date of letter

Maine Office of Energy Resources--May 5, 1986

Maine Department of Inland Fisheries and Wildlife--May 19, 1986

Department of the Army, New England Division Corps of Engineers--May 22, 1986

Intervenors--Date of petition

Penobscot Indian Nation--May 15, 1986

B. Water Quality Certification

On February 12, 1986, the Maine Department of Environmental Protection (DEP) granted the applicant §401 water quality certification, as authorized by the Clean Water Act.

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V. Environmental Analysis

A. Proposed Project

There would be no direct or indirect adverse environmental impacts on recreation, visual quality, or socioeconomics.

1. General Description of the Locale

The topography of the project vicinity is characterized by low, rolling hills rising above wide, flat valleys. The majority of land adjacent to the Penobscot River is forested, with interspersed agricultural and residential development. The climate of the project area can be categorized as cool, humid, and continental.

2. Geology and Soils

Affected Environment: The project area is characterized by gently rolling terrain formed through the deposition of outwash soil from a retreating glacier, underlain by phyllite bedrock. The soil deposits are predominantly stratified layers of silty sand or sandy silt with cobbles and boulders, and may be up to 40 feet deep. The west side of the river has predominantly sandy deposits up to 3 feet deep. The properties of the soils and the geology in the project area are such that ground-disturbing activities would affect their stability.

Environmental Impacts and Recommendations: Construction of project features, including cofferdam construction and removal, and other ground-disturbing activities, such as excavation, dredging, and disposal of spoil materials, would cause increases in erosion, sedimentation, and turbidity. A detailed, comprehensive plan to control erosion, sedimentation, and turbidity is needed to mitigate the adverse impacts of project construction and operation. The licensee, before commencing any ground-disturbing activities, should file with the Commission such a plan.

Unavoidable Adverse Impacts: Erosion, sedimentation, and turbidity would be unavoidable during project construction.

3. Water Resources

Affected Environment: The West Enfield Project is located on the lower mainstem of the Penobscot River about 37 miles upstream of the head of tide at Bangor, Maine. The total drainage area upstream of the project is about 5,100 square miles; the total Penobscot River drainage contains 8,570 square miles (Bangor Hydro Electric Company, 1986a). The average annual flow at the project is about 8,900 cfs. Extremes have ranged from a minimum of about 3,000 cfs to a maximum of 106,000 cfs. The 7Q10 flow (the lowest flow that could be expected to occur for 7 consecutive days every 10 years) is calculated to be 2,725 cfs. The normal runoff pattern at the site is that of low flows during the summer and early fall period, increased flows during the late fall and winter, because of storm events, and highest flows in April and May, because of spring runoff. The existing license currently requires a minimum flow of 2,725 cfs from the project, including 500 cfs from the dam.

The water quality of the Penobscot River at the project is adequate for maintaining fish and wildlife populations and for recreational boating and fishing. Water quality usually meets or exceeds DEP's Class C criteria, which includes a minimum dissolved oxygen level of 5 milligrams per liter (mg/l), a pH range of from 6 to 8.5, and a fecal coliform count of not more than 1,000 bacteria per 100 milliliters (Bangor Hydro Electric Company, 1986a).

Water quality data from the Geological Survey water quality monitoring station at Eddington, Maine, about 35 miles downstream of the project, verifies that water quality in the mainstem Penobscot River usually meets the Class C standards. Data recorded at this station since 1979 show a range of dissolved oxygen of 6.5 to 15 mg/l and a pH range of 5.3 to 9.3, slightly outside the Class C criteria for pH. Water temperatures have ranged from 0 (in winter) to 28 degrees Celsius (°C) (in summer). Data from 1982 and 1983 indicate a range of 6.6 to 15 mg/l for dissolved oxygen, 6.0 to 7.4 for pH, 0 to 26.5 °C for water temperature, and 90 to 400 coliforms per 100 milliliters for fecal coliform bacteria. Turbidity was reported to be relatively low through this reporting period, ranging from 1.1 to 2.7 nephelometric turbidity units (Geological Survey, 1984).

Environmental Impacts and Recommendations: Redevelopment of the project would involve major construction activities within the bed of the Penobscot River. Construction of the dam, powerhouse, intake, and tailrace would require the excavation of about 132,000 cubic yards of rock and earth. The major riverbed disturbance would be produced by the excavation of the proposed tailrace, which would be about 1,100 feet long and about 100 to 400 feet wide. Using the proposed cofferdams would involve the placement and removal of 134,000 cubic yards of stone and gravel fill. Major construction work in the river would occur over a 2 year period and could significantly increase turbidity and sediment deposition in the Penobscot River near the project. The excavation of the tailrace and placement and removal of the cofferdams would produce periods of the highest turbidity and sedimentation.

No agencies have made specific recommendations for mitigating the impacts of

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construction activities at the proposed project, although DEP includes a condition in the water quality certificate that would require the licensee to prepare a detailed sedimentation and erosion control plan.

The licensee proposes to construct the dam and powerhouse "in the dry" behind cofferdams and to utilize other standard erosion control measures, but has not completed a schedule for implementation, and other specific details of these proposals. The erosion, sedimentation, and turbidity control plan recommended in the section on Geology and Soils should be implemented after consultation with DEP, the Maine Atlantic Sea Run Salmon Commission (SRSC), the Maine Department of Marine Resources (DMR), the Maine Department of Inland Fisheries and Wildlife (IFW), and the U.S. Fish and Wildlife Service (FWS).

Operation of the proposed project would divert river flows through the powerhouse and tailrace and would eliminate spillage over the dam during most of the year. Under average flow conditions, significant spills would occur only in April

and May, when average monthly flows are 19,821 and 18,700 cfs, respectively (personal communication, Douglas S. Morrell, Bangor Hydro Electric Company, Bangor, Maine, June 3, 1986). Average monthly flows are less than the 9,000 cfs hydraulic capacity of the proposed powerhouse the remainder of the year, indicating that only occasional spills would occur. Elimination of spillage and the leakage that occurs through the existing dam would not significantly affect water quality, although the aeration effect of spillage over the dam would be reduced as spillage is reduced.

No concerns or recommendations were expressed by an agency regarding the effects of project operation on water quality. Specific mitigative measures would not be required. Mitigation of the effects of project operation on aquatic habitat are discussed in the following section on Fish Resources.

Unavoidable Adverse Impacts: Project construction would temporarily disturb a large area of the bed of the Penobscot River in the vicinity of the West Enfield Project and periodically would increase turbidity and sedimentation over the proposed 2 year construction period.

4. Fish Resources

Affected Environment: The Penobscot River supports a significant population of anadromous Atlantic salmon (*Salmo salar*) and smaller populations of American shad (*Alosa sapidissima*) and alewife (*A. pseudoharengus*). The SRSC, DMR, and FWS are actively involved in programs to restore these anadromous species to the river; most efforts have been devoted to the salmon, although shad and alewife are expected to benefit from some measures, such as fish passage improvements, that have been implemented for salmon. The Penobscot River historically has supported an estimated run of 40,000 to 75,000 salmon, but this run was almost totally eliminated by the 1950's (Baum, 1983). The salmon restoration program was initiated in 1965, and in recent years the total run has reached 3,000 to 4,000 fish annually. The run is maintained primarily by stocking hatchery-reared smolt, although a portion of the adult run is allowed to migrate upstream through the West Enfield Project and other mainstem projects to tributary spawning areas. Juvenile salmon have also occasionally been stocked in the mainstem river to utilize available rearing habitat (Bangor Hydro Electric Company, 1986a). The area immediately downstream of the West Enfield Dam contains suitable habitat for both juvenile (parr) rearing and adult holding (Bangor Hydro Electric Company, 1986b).

American shad and alewife populations have been historically significant in the Penobscot River, with annual catches reported as high as 200,000 and 730,000 fish, respectively (Baum, 1983). Populations of shad and alewife declined sharply in the river during the early 1900's, and no estimate is available on the present size of the shad and alewife runs. Both species are occasionally reported in fishways on the mainstem dams, but apparently only in low numbers. The catadromous (lives in freshwater, spawns in the ocean) American eel (*Anguilla rostrata*) also migrates through the project area.

Resident species reported to occur in the project vicinity are landlocked Atlantic salmon, brown trout (*S. trutta*), brook trout (*Salvelinus fontinalis*), smallmouth bass (*Micropterus dolomieu*), largemouth bass (*M. salmoides*), chain pickerel (*Esox niger*), white perch (*Morone americana*), and yellow perch (*Perca flavescens*).

Environmental Impacts and Recommendations: Project construction would disturb a large part of the existing fisheries habitat for about 1,100 feet downstream of the West Enfield Project. Increased sedimentation and higher turbidity levels would occur periodically throughout the construction period. Sedimentation of the gravel and cobble substrate below the dam would render this habitat less suitable for salmonid rearing, and would reduce rearing habitat until this sedimentation is flushed out by high flows. The habitat disturbance and high turbidity levels would also cause fish to avoid the area and to use habitat elsewhere. Quantification of these

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impacts is difficult, although it is expected that impacts on the species of greatest concern, the Atlantic salmon, would be insignificant. Presently, rearing areas on the mainstem Penobscot River are lightly used by juvenile salmon, since about 98 percent of the run originates from hatchery smolt stockings. Most natural production to date has occurred in tributaries to the tidal Penobscot River downstream of Bangor Dam (Baum, 1983).

The passage of adult salmon through the project could be affected by construction activities if these activities are inappropriately scheduled to coincide with the peak periods of migration. The licensee proposes to keep the existing fishway in operation throughout the construction period, although there would be a short period of time when no fish passage would be available. The existing fishway passes fish into the power canal, which would be filled in at the end of the construction period. The proposed fishway would be placed on a portion of the filled-in canal, so no fish passage would be available

during the period when the power canal is being filled and the new fishway is being constructed.

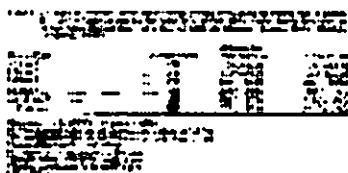
The fishery resource agencies made no specific recommendations for mitigating construction effects. As stated previously, however, DEP included conditions in the water quality certificate that would require the licensee to develop a soil erosion and sedimentation control plan. DEP also included a condition that would require the licensee to develop a plan for maintaining fish passage during the construction period.

Implementation of DEP's conditions would protect fish resources during the construction period; the licensee should carry out these conditions after consulting with Federal and state fishery agencies. The existing license contains a requirement (article 30) that the licensee assist SRSC in trucking salmon from the downstream Veazie Dam to upriver areas during the construction period. This condition was placed in the license because construction of the licensed project would close the fish passage facilities for a longer period of time than would be required by the current proposal. Article 30 should be replaced by an article requiring the licensee to develop a plan for maintaining fish passage during the construction period.

Operation of the proposed project would improve fish passage conditions compared to existing conditions at the project. Building the proposed fishway, with entrances both in the tailrace and the spillway, and placing of the proposed powerhouse at the dam would facilitate upstream passage of fish. The elimination of significant leakage from the dam, estimated by the licensee to be 1,400 cfs, would reduce the periods of time that fish would be attracted away from the fishway entrances. The proposed gated spillway, to be constructed adjacent to the powerhouse and fishway, would improve fish passage efficiency during high-flow periods, because spillway flows would attract fish to the vicinity of the spillway fishway entrance. Downstream fish passage would be provided by a surface skimmer and downstream migrant conduit in the proposed powerhouse.

Proposed project operation would change the pattern of flow downstream of the dam by channelling most of the flow through the powerhouse and eliminating the spillage and leakage that occurs over the existing dam. The licensee has assessed the impacts of these flow changes on the existing salmon habitat below the dam (Bangor Hydro Electric Company, 1986b). This assessment compares habitat conditions below the existing dam, at a flow of 2,500 cfs in the spillway and 2,100 cfs in the power canal, to habitat conditions below the dam with the river bottom excavated to elevations 130 and 131 feet, at a flow through the proposed powerhouse of 4,600 cfs (the August median flow). The river bottom excavations were proposed by the licensee to replace fish habitat that would be lost in the construction and operation of the project. Table 1 summarizes the results of the licensee's assessment.

This assessment assumes that the area below the dam, from the west side of the proposed powerhouse to a point on the west bank about 200 feet downstream of the dam, would be a "backwater" area, and would not contain sufficient velocities to be included as salmonid habitat. Some of this area, which is mostly 3 to 6 feet or greater in depth, could be utilized by both adults and parr, however.



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The assessment indicates that the proposed project would result in a loss of salmon habitat in most habitat types. The exceptions are that young-of-the-year habitat would increase by 18 percent with excavations to elevation 131 feet, and optimum habitat for age I- and II- parr would increase by 25 percent with excavations to elevation 130 feet. Total parr habitat (1 to 6 feet deep) would remain about the same as the present habitat under the excavation to elevation 130 foot alternative. The overall loss of salmon habitat for the proposed project under either excavation alternative would be 15 percent.

In commenting on the licensee's earlier assessment of habitat losses included in the application, FWS states that there should be no net loss in existing salmon habitat values at the site and that the release of flows into the habitat below the dam may be the preferred alternative for mitigating the loss of habitat. The licensee states that the fishery agencies would be consulted before excavating the river bottom below the dam and that the type of habitat specified by the agencies to meet their long-term management goals for the Penobscot River would be provided (Bangor Hydro Electric Company, 1986b).

The licensee's assessment indicates that optimum salmon parr habitat would increase with the proposed project and the river bottom excavated to elevation 130 feet. Salmon young-of-the-year habitat would decrease by 83 percent, due to excavation of the shallower areas below the dam. Adult habitat would decrease by 12 percent, primarily because the deeper-water habitat below the existing dam, which now receives flow from over the dam, would become a backwater area. The licensee's proposal to manipulate habitat below the dam according to the agencies' recommendations may have merit, although it is difficult to determine if FWS's objective of no net loss in existing habitat values can be met. A tradeoff between young-of-the-year and parr habitat could be manipulated by the excavations below the dam, and it may be possible to provide deeper-water adult habitat by additional excavations.

The habitat modifications proposed by the licensee are of a larger scale than habitat enhancement projects reported in the literature and this raises the question of the practicality of the proposal. Habitat enhancement has been used for many years in attempts to improve fish production (usually trout) in streams throughout North America (Duff and Wydoski, 1982). Most of these attempts, in relatively small streams, met with varying degrees of success (Cooper, 1970; Lere, 1982). Excavations for habitat enhancement in about 1,100 feet of the Penobscot River would be a significant effort, and would cause significant short-term adverse impacts to aquatic habitat below the West Enfield Dam.

The permanence of these habitat modifications also would be in doubt because of the size of the river and its associated high volumes of flow and annual ice flows. Parfitt and Buer (1981) report that spawning gravel enhancement work on the upper mainstem of the Sacramento River, which experiences high flows in a range similar to that of the Penobscot River at West Enfield, was unsuccessful, because the emplaced spawning gravels were eroded within less than 6 months. Although spawning gravel enhancement is not proposed by the licensee, movement of the restructured gravel and cobble substrate below the dam could occur at high flows. This may require the periodic maintenance of the habitat, and these maintenance activities would in themselves result in adverse impacts to the aquatic habitat. Resident species such as smallmouth bass and brown trout would be adversely affected by any restructuring or recontouring below the dam.

The existing license for the project, in article 31, contains a requirement for passing a minimum flow of 2,725 cfs from the project, including 500 cfs from the project dam. The licensee proposes that the revised project be operated in a run-of-river mode with no releases from the dam. Because of the uncertainty about the practicality and the potential success of the licensee's proposal to restructure habitat below the dam, it would be appropriate to continue the requirement for a minimum flow over the spillway until further studies can refine or verify the acceptability of

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either the licensee's proposed mitigation or a minimum flow over the dam. Tailrace flows would spread out over much of the habitat below the dam, and a release of 500 cfs into the spillway would provide additional protection for habitat immediately below the dam. Article 31 should be revised to require run-of-river operation, and the requirement for the 500 cfs release over the dam should be retained. The licensee also should conduct follow-up studies below the dam to determine whether the 500 cfs release or the licensee's proposed habitat manipulations would better mitigate the project's effects.

The existing license, in article 29, also contains a requirement for the filing of functional design drawings of the upstream and downstream fish passage facilities previously proposed. The licensee has provided conceptual design drawings of the fish facilities now proposed, but should consult further with the fishery agencies in developing functional design drawings. Article 29 should remain in the license.

An additional mitigative measure recommended by the agencies and agreed to by the licensee was the provision of a salmon smolt stockout pond at the project. The pond would be constructed in a portion of the existing power canal, which the licensee would fill in at the end of the construction period. The pond would be used annually to stock salmon smolts as part of the Federal and state program to rebuild the salmon population in the Penobscot River. The licensee should further consult with the Federal and state fishery agencies on the final design of the stockout pond and should file this design with the Commission.

Unavoidable Adverse Impacts: Project construction would disturb large areas of existing fishery habitat below the dam and likely would prevent fish from using these areas during portions of the 2 year construction period. Project operation would change the pattern of flows below the dam, resulting in changes in the amount and type of salmon habitat in the area.

5. Terrestrial Resources

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Affected Environment: The Penobscot River Basin is heavily forested. Common tree species are sugar (*Acer saccharum*) and red maple (*A. rubrum*), American beech (*Fagus grandifolia*), yellow (*Betula alleghaniensis*) and paper birch (*B. papyrifera*), red spruce (*Picea rubens*), and white (*Pinus strobus*) and red pine (*P. resinosa*) (Bangor Hydro Electric Company, 1986a).

White-tailed deer (*Odocoileus virginiana*) is the most common big game species in the project area. Small game species are ruffed grouse (*Bonasa umbellus*), American woodcock (*Scolopax minor*), gray squirrel (*Sciurus carolinensis*), and snowshoe hare (*Lepus americanus*). Mammals associated with aquatic habitats are beaver (*Castor canadensis*), muskrat (*Ondatra zibethicus*), mink (*Mustela vison*), and river otter (*Lutra canadensis*). Waterfowl species are wood duck (*Aix sponsa*), black duck (*Anas rubripes*), common goldeneye (*Bucephala clangula*), and common merganser (*Mergus merganser*) (Bangor Hydro Electric Company, 1986a).

The bald eagle (*Haliaeetus leucocephalus*), a Federally listed endangered species, is a regular but uncommon winter visitor to the Penobscot River drainage (Todd, 1979). A pair of eagles use the area below the dam fairly regularly during the winter. Although an eagle nest is located about 3 miles upstream of the dam, nesting eagles are infrequently seen in the project area (letter from C.S. Todd, Research Associate, University of Maine, Orono, Maine, June 28, 1983).

Environmental Impacts and Recommendations: Increased human activity, traffic, and noise during the 2 year construction period would disrupt the normal activities of local wildlife populations. Less than 2 acres of woody and early successional vegetation would be disturbed by construction activities. The filling in and revegetating of the power canal would create about 5 acres of terrestrial habitat. Increased reservoir levels would have a minimal impact on wildlife habitat.

The presence of the cofferdam would limit eagle foraging in the river below the dam during the construction period. Eagles would be expected to use nearby areas until the cofferdam is removed.

Unavoidable Adverse Impacts: Local wildlife populations would experience a minor, short-term disturbance from the proposed construction activities.

6. Cultural Resources

Affected Environment: There are no sites or structures in the project area listed on or eligible for inclusion on the *National Register of Historic Places* (letter from Earle G. Shettleworth, Jr., State Historic Preservation Officer, Maine Historic Preservation Commission, Augusta, Maine, January 13, 1986).

Environmental Impacts and Recommendations: Project construction could adversely affect buried sites or other archeological or historic sites not previously identified in the project vicinity, but eligible for inclusion on the *National Register*. If the licensee encounters such sites during the

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development of project works or related facilities, article 33 of the license requires the licensee to halt construction in the vicinity of the sites and to consult a qualified archeologist and the Maine State Historic Preservation Officer about the eligibility of the sites and about any measures needed to avoid the sites or to mitigate effects to the sites.

Unavoidable Adverse Impacts: None.

B. Cumulative Impact Analysis

1. Penobscot River Basin

The Penobscot River Basin, flowing from Medway to Bangor, Maine, is located between the watersheds of the St. John River in the north, the St. Croix River in the east, and the Kennebec River in the west. The northwest boundary of the basin forms a part of the international boundary between the United States and Canada.

The Penobscot River Basin is the largest basin (8,570 square miles) in the state of Maine, about 125 miles long from north to south and about 115 miles wide. Numerous lakes, streams, ponds and other natural features of the basin afford excellent recreational opportunities. Fish and game habitat attract large numbers of hunters and fishermen.

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2. Proposed and Existing Hydroelectric Development

At present, there are three pending applications for amendment to license in the Penobscot River Basin: the West Enfield Project, the Milford Project (FERC Project No. 2534), and the Orono Project (FERC Project No. 2710); and one application for relicense: the Mattaceunk Project (FERC Project No. 2520) (figure 4).

Within the basin there are 19 existing hydroelectric projects with major licenses, 1 project with a minor license, and 8 projects that have been exempted from licensing (figure 4).

3. Target Resources

The staff has determined that anadromous fish, whitewater boating, and the bald eagle are target resources that could be adversely affected by two or more proposed hydropower projects in the Penobscot River Basin. Staff based its selection of target resources on the relicense application for the Mattacuenk Project (FERC Project No. 2520) and the applications for amendment to license for Project Nos. 2710, 2534, and 2600, the written comments from all interested parties, and basinwide reports, plans, and studies (New England River Basin, 1981; Maine Department of Conservation and National Park Service, 1982). A discussion of the target resources follows.

As stated in Section 4, the existing West Enfield dam is located within an active anadromous fish zone where restoration efforts by Federal and state fish and wildlife agencies are beginning to restore the Atlantic salmon, American shad, and alewife populations. All of these species were present in large numbers in late 1800's. In 1873, an estimated 15,000 salmon were netted near Bangor, Maine, yet in the 1960's there were practically no anadromous fish in the basin (Bangor Hydro Electric Company, 1986a). Due to restoration efforts, the Penobscot River supported a run of more than 3,200 salmon in 1980 (New England River Basin Commission, 1981). No estimate is available on the current size of the shad and alewife runs.

The anadromous fish species in the Penobscot River are valuable for their contribution to both sport and commercial fisheries. Atlantic salmon and shad are important sport fish, while alewife are important commercial species, harvested primarily for use as lobster bait.

Whitewater boating occurs in the Penobscot River Basin, primarily between Telos Lake and the town of Medway on the East Branch Penobscot River and between Ripogenus Lake and Ambajejus Lake on the West Branch Penobscot River. Most of these river segments provide moderately difficult boating and some Class IV and V areas (the most challenging levels of difficulty). Class IV and V boating areas are extremely scarce in New England and throughout the United States. The scarcity of such river segments is indicative of their importance (New England River Basin Commission, 1981; Maine Department of Conservation and National Park Service, 1982).

It is estimated that 11 pairs of bald eagles nest in the Penobscot River Basin; three nests are known to be located on the mainstem river (Bangor Hydro Electric Company, 1986a), one of which is located 3 miles downstream of the project area and another is located 5 miles upstream. The bald eagle is important since it is not only the national bird but is an endangered species as well.

4. Environmental Impact to Target Resources

The existing fishway at the West Enfield Project does not adequately provide for fish passage at the project. The provision of adequate fish passage facilities at this project would make available to a greater number of fish, the spawning and nursery areas in the Mattawamkeag River drainage, in addition to similar areas in the upper Penobscot River (Maine Department of Inland Fisheries and Game and State of Maine Atlantic Sea Run

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Salmon Commission, 1967). The licensee proposes to improve the existing conditions for anadromous fish movement at the West Enfield Project by continuing to operate the project in a run-of-river mode, without using the bypassed reach, and by replacing the existing fishway with a new and improved fish passage facility. The net cumulative effect would be beneficial to the anadromous fish restoration program in the Penobscot River Basin and would supplement the commercial and recreational fishery. The licensee also proposes to add to the existing recreational fishing opportunities in the basin by providing fisherman access to the project area.

Whitewater boating would not be affected by the proposed amendment to license because no whitewater boating occurs

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on the mainstem Penobscot River. The nearest whitewater boating activities take place about 35 miles upstream on the East Branch Penobscot near the Mattaceunk Project (New England River Basin Commission, 1981; and Maine Department of Conservation 1982).

The nearest bald eagle nest to the project area is located 3 miles downstream. Bald eagles are known to feed in the project area, but would be unaffected by the proposed project (letter from Gordon Beckett, Supervisor, Ecological Services, U.S. Fish and Wildlife Service, Concord, New Hampshire, July 23, 1983).

For the reasons expressed above, the proposed West Enfield Project would not contribute to cumulative adverse impacts on anadromous fish, whitewater boating, or the bald eagle, which were identified by staff as target resources of the Penobscot River Basin.

C. Alternative of No Action

The impacts of the no-action alternative, which would be the construction and operation of the project as licensed in 1984, were assessed before that licensing action. The licensed project, like the proposed project, would enhance the passage of anadromous fish through the project area as a result of the construction of new fish passage facilities. The licensed project would result in fewer impacts on aquatic habitat during construction, but more severe impacts on aquatic habitat during operation, compared to the proposed project. The licensed project would not involve extensive construction activities in the bed of the Penobscot River, since the dam would not be reconstructed and a new tailrace would not be excavated from the riverbed below the dam. Operation of the licensed project would result in significant flow reductions in the 1,100 feet of river immediately below the dam. Most of the river flow would be diverted through the power canal and powerhouse, and under normal project conditions, only the required 500 cfs minimum flow would be passed over the dam. This would produce a long-term reduction in Atlantic salmon and resident fish habitat below the dam.

The licensed project also would keep project fish passage facilities out of service for a longer period of time during the construction period. Since the powerhouse would be constructed in the existing canal, the canal would be dewatered and the existing fishway would be unable to operate. The licensee proposed to assist SRSC in the trucking of salmon from the downstream Veazie Dam during the construction period, but this would not provide passage for other anadromous species attempting to migrate past the West Enfield Project.

The general impacts of the no-action alternative on geology and soils, water resources, and terrestrial and cultural resources would be similar to the impacts of the proposed action.

D. Recommended Alternative

Both the licensed and proposed projects would enhance the migration of anadromous fish, because both projects would provide for new fish passage facilities at the dam. The major difference between the two projects is the location of the powerhouses. For the proposed project, the powerhouse would be located at the dam and for the licensed project, the powerhouse would be located in the power canal, resulting in a bypassed reach of about 1,100 feet below the dam. Consequently, the proposed project, without a bypassed reach, would cause a less significant reduction in Atlantic salmon habitat below the dam. Based on this difference, the proposed project is the recommended alternative.

VI. Finding of No Significant Impact

Operating the proposed project would improve fish passage conditions, compared to existing conditions at the project. The improvement would benefit the anadromous fish restoration program in the Penobscot River Basin.

Project construction would disturb large areas of existing fishery habitat below the dam, and likely would preclude fish from using these areas during portions of the 2 year construction period. Project operation would change the patterns of flows below the dam, resulting in changes in the amount and type of salmon habitat in the area. Mitigative measures would, however, adequately protect the affected salmon habitat.

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Increases in erosion, sedimentation, and turbidity would be unavoidable during project construction. Construction activities would disturb local wildlife populations.

On the basis of this independent environmental analysis, amending the license for the project would not constitute a major Federal action significantly affecting the quality of the human environment.

VII. Literature Cited

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VIII. List of Preparers

Alan D. Mitchnick--EA Coordinator, Terrestrial Resources (Wildlife Biologist; M.S., Wildlife and Fisheries Sciences).

Angelo Colianni--Geology and Soils (Soil Conservationist; B.S., Agriculture [Range Management, Soil Science]).

Robert A. Crowley--Economic Analysis and Comprehensive Development (Civil Engineer; B.S., Engineering).

Peter S. Foote--Water Resources and Fish Resources (Fisheries Biologist; M.S., Fisheries Biology).

John Mitchell--EA Editor (Writer-editor; B.S., Social Science).

Brian Romanek--Cumulative Impact Analysis (Outdoor Recreation Planner; B.S., Recreation Resource Planning and Management).

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Martin Thorpe--Need for Power and Alternatives (Electrical Engineer; B.S.E.E).

1 Figures and attachments referenced in the text are omitted from this document due to reproduction requirements.

Safety and Design Assessment

West Enfield Project

FERC Project No. 2600 006--Maine

Dam Safety

Bangor Hydro Electric Company proposes to replace the existing 360 feet long timber crib dam with a concrete ogee ungated spillway 39 feet high surmounted by 6 feet high flashboards to reduce leakage, insure the

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integrity of project structures and better utilize river flows for power generation.

The New York Regional Office has classified the proposed dam as low hazard. The classification was down graded from high hazard to low hazard on September 25, 1985. The gated spillway would pass 40,000 cfs and the overflow spillway would pass 70,000 cfs which is adequate for this low hazard project.

Project Design

The amended project would use three radial gates to control the head on the generating plant and a reinforced concrete powerhouse integral with the dam.

Flow from the reservoir would enter a concrete intake and would be conveyed to the generating units via four 21 foot diameter penstocks approximately 15 feet long. Since the pit type units would not require draft tubes, the flow would be discharged directly into the excavated tailrace in the river. The proposed powerhouse would contain two units and be constructed to preclude flooding at flows less than the 100 year flood. The existing power canal would be backfilled to elevation 160 m.s.l. and would comprise the east abutment of the amended project works. The west abutment would be an earthfill dike.

Exhibits

The following portion of Exhibit A and Exhibit F drawings filed March 21, 1986 conform to the Commission's rules and regulations and should be included in the license:

Exhibit A. Table A1 pages 1 through 3 of additional information dated March 31, 1986.

Exhibit Drawing No.	FERC No.	Description	Superseding FERC No.
F-51A	2600-22	Site Layout	2600-5
F-3A	2600-23	General Arrangement	2600-6
F-4A	2600-24	Fishway Plan Profile and Section	2600-7
F-6A	2600-25	Electrical One Line Diagram	2600-8

OD-ORDER, 10 FERC ¶62,268, Bangor Hydro-Electric Company, Project No. 2600, (Mar. 31, 1980)

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Bangor Hydro-Electric Company, Project No. 2600

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[¶62,268]

Bangor Hydro-Electric Company, Project No. 2600**Order Approving Exhibit R****(Issued March 31, 1980)****William W. Lindsay, Director, Office of Electric Power Regulation.**

The Bangor Hydro-Electric Company (Licensee), Licensee for the Stanford Project, FERC No. 2600, filed on June 29, 1979, an Exhibit R (Recreational Use Plan) for Commission approval, ¹ pursuant to Article 32 of the license ².

Background

The Stanford Project is located on the Penobscot River, in the Towns of Enfield and Howland, Enobscot County, Maine. Licensee filed an application for major license for its constructed Stanford Project on June 17, 1966. The Exhibit R filed as part of the application, requested that a recreational use plan not be filed until such time as the waters at the project attained a State of Maine water quality classification "C". The "C" classification is the lowest class of water quality suitable for recreational uses other than swimming and potable water.

Article 32 of the license, issued February 3, 1970, 43 FPC 132, required that licensee file an Exhibit R for Commission approval when the quality of the water at the project attained the State of Maine water quality classification standard "C".

Licensee filed an application for approval of a change in land rights on February 24, 1975, and amended it on April 8, 1976. Licensee proposed to lease 2.33 acres of land within the project boundary to the Town of Enfield for development of a day use facility. The lease was approved by the Commission by an order issued on May 10, 1976, 55 FPC 2141; however, the parcel has not yet been developed.

On June 29, 1979, Licensee filed an Exhibit R for Commission approval, indicating that the water quality of the Penobscot River at the project had attained the State of Maine classification standard "C".

Discussion

The Exhibit R filing includes: (a) a copy of the order designated as Instrument No. 3 of the license, approving the lease of the 2.33-acre parcel of land to the Town of Enfield, Maine (Town), (b) a copy of Licensee's letter of consultation with the Heritage Conservation and Recreation Service (HCERS), (c) a copy of the Maine Department of Conservation's (MDC) letter to the Licensee, and (d) an Exhibit R drawing (FERC No. 2600-12) showing the location of the land leased to the Town. No further recreational development is proposed at the project.

Licensee's letter of consultation with HCERS resulted in a letter from MDC indicating concurrence with Licensee's recreation plan as depicted on the Exhibit R drawing. The Exhibit R drawing complies with the requirements of license Article 32 for Project No. 2600, and depicts facilities to provide for the recreational needs at the project. The Exhibit R drawing is approved by this order.

Environmental Impacts

Approval of the Exhibit R drawing is an administrative matter, and does not authorize construction or change in project operation. Accordingly, approval of the Exhibit R does not constitute a major Federal action significantly affecting the quality of the human environment.

It is ordered that:

OD-ORDER, 10 FERC ¶62,268, Bangor Hydro-Electric Company, Project No. 2600, (Mar. 31, 1980)
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(A) The Exhibit R drawing entitled "Recreation Plan, Stanford Hydro Project", FERC No. 2600-12, is approved.

(B) This order is final unless a petition appealing it to the Commission is filed within 30 days from the date of its issuance, as provided in §1.7(d) of the Commission's Regulations, 18 CFR 1.7(d) [as amended in Docket No. RM78-19 (August 14, 1978) and in Docket No. RM79-59 (July 23, 1979)].

– Footnotes –

¹ Authority to act on this matter is delegated to the Director, Office of Electric Power Regulation, under Section 3.5(g) of the Commission's Regulations, 18 CFR 3.5(g), as amended in Docket No. RM78-19

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(August 14, 1978, *FERC Statutes and regulations* ¶30.016) and in Docket No. RM79-59 (July 23, 1979, *FERC Statutes and Regulations* ¶30.068).

² *Article 32.* Licensee shall consult and cooperate with appropriate Federal, State and local agencies for 1) the full recreational utilization of project lands and waters and, 2) in regard to studies, surveys and planning activities for the improvement of water quality and for the conservation and development of fish and wildlife resources. At such time as the quality of the water of the river at the project attains State of Maine water quality classification standard "C", or at such other time as the Commission may order, Licensee shall file for Commission approval an Exhibit R conforming to the requirements of Sections 4.41 and 4.42 of the Commission's Regulations under the Federal Power Act.

ATTACHMENT C
NOTICE OF INTENT TO FILE AND ABUTTER LIST

BANGOR DAILY NEWS | WEDNESDAY, JUNE 2, 2004 | D5

Legal Notices

NOTICE OF INTENT TO FILE

MAINE WATER QUALITY CERTIFICATION AND WATERWAY DEVELOPMENT AND CONSERVATION ACT APPLICATIONS

Please take notice that PPL Maine, LLC and Bangor-Pacific Hydro Associates of Davenport Street, P.O. Box 276, Milford, Maine 04461, (207) 827-2247 are intending to file applications with the Maine Department of Environmental Protection for Water quality Certifications pursuant to the provisions of the Maine Waterway Development and Conservation Act and the Federal Clean Water Act, Section 401. The applications are for the following Projects and activities:

Milford Hydro Project, FERC No. 2534, Milford and Old Town, Maine: modifying the fish passage requirements to be consistent with the modified DOI/NMFS fishway prescription.

West Enfield Hydro Project, FERC No. 2600, Enfield and Howland, Maine: increasing the normal headpond elevation by 1 foot by increasing the height of the existing flashboards, and incorporation the installation of upstream eel passage facilities.

Medway Hydro Project, FERC No. 2666, Medway, Maine: increasing the normal headpond elevation by 1 foot by increasing the height of the existing flashboards.

Stillwater Hydro Project, FERC No. 2712, Old Town, Maine: increasing the normal headpond elevation by 1 foot by increasing the height of the existing flashboards; modifying the minimum bypass flow requirements; and modifying the fish passage requirements to be consistent with the modified DOI/NMFS fishway prescription.

Orono Hydro Project, FERC No. 2710, Orono, Maine: retire and rehabilitate the Project to operate at its existing capacity of 2.3 MW.

The applications will be filed on or about June 4, 2004 for inspection at the DEP's offices in Augusta during normal working hours. A copy of the applications may also be seen at the municipal offices in the above-referenced towns.

A request for a public hearing or a request that the Board of Environmental Protection assume jurisdiction over these applications must be received by the Department, in writing, no later than 20 days after the applications are found by the Department to be complete and are accepted for processing. Public comment on the applications will be accepted throughout the processing of the applications.

For Federally licensed, permitted, or funded activities in the Coastal Zone, review of these applications shall also constitute the State's consistency review in accordance with the Maine Coastal Program pursuant to Section 307 of the federal Coastal Zone Management Act.

Written public comments may be sent to the Department of Environmental Protection, Bureau of Land and Water Quality, 17 State House Station, Augusta, Maine 04333.

June 2, 2004

**WEST ENFIELD HYDROELECTRIC PROJECT
FERC PROJECT NO. 2600
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DOUGLAS & SHARI IRELAND
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GERALD MITCHELL
PO BOX 61
BATH, ME 04530

STERLING OSGOOD
305 WEST BROADWAY
LINCOLN, ME 04457

JOHN & LORI PHILLIPS
354 MOHAWK ROAD
ENFIELD, ME 04493

SUSAN D. PINKHAM
588 WEST BROADWAY
LINCOLN, ME 04457

ANDREW PLOURDE
49 VERDUGO STREEET
WEST SPRINGFIELD, MA 01089

RONALD & HEIDI PLOURDE
PO BOX 382
WEST ENFIELD, ME 04493

WILLIAM & MIEZIE PLUMMER
58 MOHAWK ROAD
ENFIELD, ME 04493

DAVID & WANDA POND
82 MOHAWK ROAD
ENFIELD, ME 04493

JAMES & MOLLY POND
470 MOHAWK ROAD
ENFIELD, ME 04493

MATHEW RIX
1 QUAMOHEGAN ROAD
SOUTH BERWICK, ME 03508

DARRELL SAVAGE
694 MOHAWK ROAD
LINCOLN, ME 04457

SUE, JANE & CONNIE SCANLON
SLIPPER RIDGE
LEE, ME 04455

JOHN & DONNA TOTZ
340 MOHAWK ROAD
ENFIELD, ME 04493

ANDREW AND LOIS SHAFFER
698 MOHAWK ROAD
LINCOLN, ME 04457

GIBERT & SOLANGE TREMBLAY
1382 MAIN ROAD
ENFIELD, ME 04493

RONALD SHELDON
450 MOHAWK ROAD
ENFIELD, ME 04493

CHRISTOPHER VOLL
28 PROSPECT AVENUE
ERIAL, NJ 08081

RUSSELL SIKORA
88 OAKWOOD AVENUE APT. 1
LYNN, MA 01902

RALPH WATTS
110 PENOBSCOT AVENUE
PO BOX 452
HOWLAND, ME 04448

GRACE SMITH
346 MOHAWK ROAD
ENFIELD, ME 04493

HERBERT WORSTER
710 MOHAWK ROAD
LINCOLN, ME 04457

APRIL ST. PETER
74 MOHAWK ROAD
ENFIELD, ME 04493

JOHN W. YORK
3 RUN-A-ROUND LANE
PO BOX 261
HOWLAND, ME 04448

PETER THERIAULT
PO BOX 133
DANFORTH, ME 04495

GARDINER LAND COMPANY
PO BOX 189
LINCOLN, ME 04457

RAYMOND THIBODEAU
HCR 66 BOX 180
HOWLAND, ME 04448

INTERNATIONAL PAPER COMPANY
9 GREEN STREET
AUGUSTA, ME 04330

BRUCE & WILMA THORTON
PO BOX 427
RAYMOND & JOSHUA TILTON
61 DODLIN ROAD EXTENSION
ENFIELD, ME 04493

GVGC, INC.
1886 MAIN ROAD
ENFIELD, ME 04493

JOSHUA AND RAYMOND TILTON
RR1 BOX 680
LINCOLN, ME 04457
WEST ENFIELD, ME 04493

TOWN OF LINCOLN
63 MAIN STREET
LINCOLN, ME 04457

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May 25, 2004

Exhibit F

Project Drawings

The existing Exhibit F for the West Enfield Project includes the following plans:

- F-1 General Site Plan (FERC 2600-27)
- F-2 Powerhouse Plan (FERC 2600-28)
- F-3 Elevation and Powerhouse Plan (FERC 2600-29)
- F-4 Elevation and Powerhouse Section (FERC 2600-30)
- F-5 Gated Spillway Section (FERC 2600-31)
- F-6 Ungated Spillway Section (FERC 2600-32)

The proposed project improvements and changes will affect limited structures as depicted on Exhibits F-4 and F-6 only. Revised F-4 and F-6 plans have been prepared which reflect changes to:

- F-4:
 - Revise normal headwater elevation
- F-6:
 - Revise normal headwater elevation
 - Revise flashboard detail

Because plans show details of project structures that are considered Critical Energy Infrastructure Information (CEII), and FERC regulations limit public distribution of such materials, the revised plan is being filed with FERC in a separate CEII volume. Procedures for obtaining access to CEII may be found at 18 CFR §388.133. Requests for access to CEII should be made to the Commission's CEII Coordinator.

Exhibit G

Project Maps

The existing Exhibit G for the West Enfield Project includes the following four plans:

- G-1 Project Map (south) (FERC No. 2700-26)
- G-2 Project Map (central) (FERC No. 2700-19)
- G-3 Project Map (north) (FERC No. 2700-20)
- G-4 Transmission System (FERC No. 2700-21)

The proposed project improvements and changes will not affect any existing project maps, and no revised maps are being submitted.

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