

**APPLICATION REVIEW FOR
LOW IMPACT HYDROPOWER INSTITUTE
CERTIFICATION
of the
BLACK BEAR HYDRO PARTNERS
ORONO HYDROELECTRIC PROJECT NO. 2710**



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Application Reviewer: Patricia McIlvaine

**APPLICATION REVIEW FOR LOW IMPACT HYDROPOWER
INSTITUTE CERTIFICATION**

BLACK BEAR HYDRO PARTNERS

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APPLICATION REVIEW FOR LOW IMPACT HYDROPOWER INSTITUTE CERTIFICATION

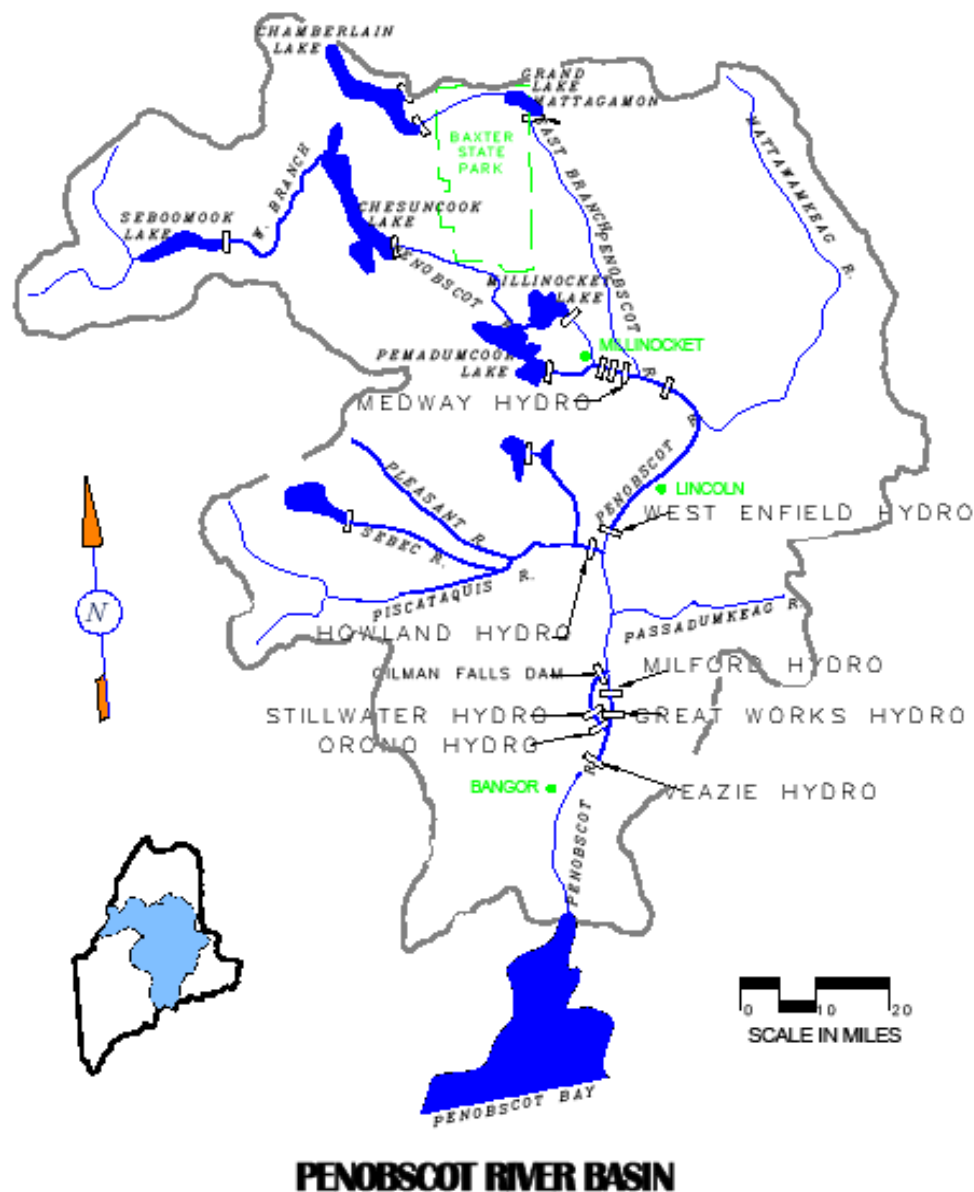
BLACK BEAR HYDRO PARTNERS LLC ORONO PROJECT NO. 2710

1.0 INTRODUCTION AND OVERVIEW

This report reviews the application submitted by Black Bear Hydro Partners, LLC ("BBHP" or "Applicant") to the Low Impact Hydropower Institute (LIHI) for Low Impact Hydropower Certification for the Orono Project. The Orono Project, located on the Stillwater Branch of the Penobscot River ("River") in Old Town, Penobscot County, Maine, is currently licensed by the Federal Energy Regulatory Commission (FERC) as Project Number 2710. The Penobscot River Basin ("Basin") is New England's second largest river system with a drainage area of 8,570 square miles extending from its West Branch near Penobscot Lake, upstream of Seboomook Lake, near the Maine/Quebec border and its East Branch at East Branch Pond near the headwaters of the Allagash River with the main stem emptying into Penobscot Bay near the Town of Bucksport. Upstream storage dams on both the West and East Branches control a large portion of flows within the drainage area. The Basin includes the East and West Branches of the Penobscot River, the Piscataquis River, the Sebec River, the Pleasant River, the Mattawamkeag River, the Passadumkeag River, the Stillwater Branch and the main stem of the Penobscot River, as illustrated on Figure 1. The Orono Project is located on Stillwater Branch of the Penobscot River less than 1,000 feet upstream where the Branch enters the Penobscot River, and is downstream of the Stillwater Dam. The Mattawamkeag River remains free-flowing, while there are a total of 20 run-of river dams located on the other Basin waterways.

BBHP currently owns and operates five run-of river hydroelectric generating facilities (Orono, Medway, West Enfield, Milford and Stillwater) in the Penobscot River Basin (See Figure 1), which were all purchased from PPL Maine, LLC. The FERC license for the Orono project transferred ownership on September 17, 2009. The Orono Project is part of the Lower Penobscot River Basin Multiparty Settlement Agreement which is discussed further under *1.2 Regulatory History*.

Figure 1
Penobscot River Basin and BBHP Hydroelectric Project Locations



Notes:

1. BBHP owns and operates the Stillwater, West Enfield, Milford, Medway and Orono Projects
2. Under the June 2004 Settlement Agreement, the ownership of the Veazie, Great Works and Howland Projects were sold to the Penobscot River Restoration Trust (PRRT). The PRRT has surrendered each Project license, with the intent of removing the Veazie and Great Works Dams, and either constructing a fish bypass at the Howland Dam, or removal of the dam.

1.1 Project and Site Characteristics

The Orono site was first developed for hydropower in 1898, and in the ensuing decades went in and out of operation. The project stopped operating in 1996 due to catastrophic failure of the facility's wood-staved penstocks which caused the project to be shut down. After the FERC issued a new license for the Orono Project on December 8, 2005, the Project was refurbished and thereafter began commercial operation of the first two units on January 11, 2009, and the other two units on March 3, 2009. The redevelopment of the Project only included refurbishment of the existing generating equipment to bring it back to the capacity permitted in its original FERC license, thus is not considered to be "new generation" in this LIHI review.

The Orono Project consists of the following facilities: (1) a 1,178-foot-long by 15-foot-high concrete gravity dam with a 320-foot-long spillway topped with 2.4-foot-high flashboards; (2) three new 10-foot-diameter penstocks; (3) a 40-foot-wide, 94-foot-long and 27-foot-high surge tank; (4) a powerhouse with four existing generating units with a total installed generating capacity of 2.332 MW; and (5) three existing 325-foot-long transmission lines.

The Project's impoundment is approximately 2.3 miles long, with a surface area of 175 acres at the normal full pond of 72.4 feet above mean sea level (msl) and an estimated gross storage capacity of 1,300 acre-feet. The current project boundary encloses the dam, the reservoir up to the 73.0-foot msl elevation. Land area occupied by the non-reservoir features described above is estimated at 1.2 acres. Approximately 111.5 acres of land is contained in a 200-foot zone extending around the impoundment. BBHP owns a very small portion of this area.

1.2 Regulatory History

Past Licensing

As identified in the current FERC license for the project (issued December 8, 2005), the Orono Project was operated under a FERC license issued to Bangor Hydro-Electric Company (Bangor Hydro) in 1977, with a retroactive effective date of 1950. This license was set to expire in 1993. By an order issued on September 25, 1985, the license expiration date was accelerated, effective

the date of the Order. From 1985 to 2005, the project was operated under an annual license. The Orono license was transferred to Penobscot Hydro LLC, which later became PPL Maine, LLC, (PPL Maine) in October 2000. The Orono Project was subsequently purchased by BBHP and the license transferred on September 17, 2009.

Settlement Agreement

Relicensing and pending appeals for several of the hydropower projects owned by PPL Maine in the Penobscot River Basin, including the Orono Project, occurred over a number of years, from 1998 through 2003. After extensive studies, consultations and legal challenges, the discussions culminated in the signing of the Lower Penobscot River Basin Comprehensive Settlement Accord, which included a number of agreements, including the Lower Penobscot River Multiparty Settlement Agreement. The Settlement Agreement was jointly entered into and signed on June 25, 2004, by:

- PPL Maine, PPL Great Works, PPL Generation (the owners of Orono at this time)
- the Penobscot River Restoration Trust (PRRT)
- Penobscot Indian Nation (PIN)
- United States Department of Interior, acting through the Fish and Wildlife Service (USF&WS), Bureau of Indian Affairs (BIA) and the National Park Service (NPS)
- Maine State Planning Office
- Maine Atlantic Salmon Commission (MASC)
- Maine Department of Inland Fish and Wildlife (MIF&W)
- Maine Department of Marine Resources (MDMR)
- American Rivers, Inc
- Atlantic Salmon Federation
- Maine Audubon Society
- Natural Resources Council of Maine (NRCM), and
- Trout Unlimited (TU).

The Nature Conservancy joined the partnership in 2006. BBHP assumed applicable responsibilities from PPL in 2009 with the FERC license transfer of the Project. The National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NOAA Fisheries) could not technically be a party to the settlement nor issue Section 18 prescriptions as they did

not file a Request for Rehearing during the initial Orono relicensing process, but gained the legal status to participate in licensing proceedings at a later date (see below).

The Settlement Agreement provided the Penobscot River Restoration Trust (PRRT), a non-profit organization, with a 5-year option to acquire the Veazie, Howland and Great Works Projects, which was exercised on January 6, 2009. Members of the PRRT are the PIN, American Rivers, Atlantic Salmon Federation, Maine Audubon, NRCM, TU and the Nature Conservancy. Although the option to purchase these facilities was exercised in January 2009, final closing on the property transfer is still pending, although it is expected to occur imminently, per discussion with Ms. Laura Rose Day of PRRT on December 6, 2010. The Settlement Agreement states that "the closing on the transfer of title of all property under license cannot occur until the FERC has issued an order accepting surrender of all three licenses, it is final and non-appealable, and all other agencies have filed the permits required to perform the proposal." Upon closing, the PRRT would:

- decommission and remove the Veazie and Great Works dams
- decommission the Howland hydropower units, and
- either alter the Howland dam by constructing a state-of-the-art fish bypass that would substantially or entirely maintain existing dam structure and impoundment, if USF&WS determines this to be a feasible option to achieve acceptable fish passage, or remove the dam.

PRRT has surrendered each Project's license and FERC approved the surrender of the licenses on June 16, 2010, although the Order addresses PPL Maine, and not PRRT, as the transfer had not yet taken place when the Order was issued. The Maine Department of Environmental Protection (MDEP) issued permits under the Maine Waterway Development and Conservation Act, and Water Quality Certificates under Section 401 of the Clean Water Act, in mid-July 2010 for the removal of the Veazie and Great Works dams and option of construction of the fish bypass channel at the Howland Project. The final required permit, from the US Army Corps of Engineers, was obtained in late October 2010.

Incorporated into the Settlement Agreement is maintenance of approximately 90% of the current power production owned by BBHP in the river basin through enhancements at other hydropower facilities in the basin, including the Orono Project. As discussed further below, BBHP has received approval and has already increased generation at three other Projects in the Basin through one-foot headpond increases, and has the opportunity to add generating capacity at the Orono, Stillwater and Medway Projects, as well as at the Ellsworth Project, located outside the Basin. The applicant reports intentions to add potential future capacity of 5.3 MW from installation of generating equipment in another, new powerhouse at the Orono Project, however this is not part of this LIHI certification application.

Current License

On June 25, 2004 PPL Maine filed an application with FERC for a new license for the redevelopment and operation of the Orono project.

On December 15, 2004, the MDEP issued a Water Quality Certificate (WQC) under Section 401 of the Clean Water Act, adopting the applicable provisions of the Settlement Agreement and other requirements including water levels and flows, upstream and downstream fish passage, a contingent mitigation fund, recreation facilities, limits of approval, and compliance with all applicable laws.

NOAA Fisheries filed a Motion to Intervene on this licensing proceeding, which was granted by FERC on December 1, 2005. This allowed NOAA Fisheries to officially participate in the licensing proceedings. The PPL Maine application also included the request by the signatories of the Settlement Agreement for FERC to approve project specific amendments to implement the initial phase of the Settlement Agreement. FERC approved a new 40-year license in their Order dated December 8, 2005

Following numerous comment letters issued by involved resource agencies, FERC also incorporated the provisions of the Contingent Mitigation Fund (Attachment B of the Settlement Agreement) into the license via incorporation of the WQC in the Order. As elaborated in their letter dated September 15, 2005 to FERC, NOAA Fisheries stressed that the Contingent

Mitigation Fund is important to the licensing of the Orono Project as it provides the mechanism by which impacts from the facility would be mitigated should the Veazie and Greet Works dam removals and bypass or removal of the Howland dam not occur. NOAA fisheries contends these mitigation contingencies allows for their finding of no impacts to the Essential Fish Habitat for the Atlantic Salmon. Section 305(b)(2) of the Magnuson-Stevens Fishery Conservation and Management Act requires protection of such Essential Fish Habitat as part of NOAA Fisheries fish protection prescriptions.

Under the Contingent Mitigation Fund, the contributions due to the effects of redeveloping the Orono Project on the bypassed reach would be \$1,000 per year (adjusted annually in accordance with the Consumer Price Index) for the term of the license. The disposition of the monies would be determined upon mutual agreement among the Penobscot Indian Nation, Bureau of Indian Affairs, USF&WS, NOAA Fisheries, and the state of Maine agencies for replacing the fish and wildlife habitat lost or degraded by habitat effects, compensating for loss or degradation of fish and wildlife habitat due to habitat effects by means other than replacement, and supporting efforts directed at restoring to the Penobscot River fisheries and the habitat on which these fisheries rely.

A review of the FERC database indicated that since the amended license issuance in 2005, only two extensions, and no temporary license condition variances or condition deviations have been requested or reported for environmental or recreational issues related to this Project. A one year extension was requested for installation of the upstream eel passage (approved by FERC on March 22, 2007) and an extension request submitted in December 2008, and approved by FERC on January 14, 2009, extended the installation deadline of the downstream fish passage facility from December 2008 to June 1, 2009. All resource agencies were supportive of both extensions.

Based on the limited number of requests, and lack of license deviations, it appears that BBHP has demonstrated conscientious attention to the environmentally related issues associated with the Orono Project's FERC License, WQC and Settlement Agreement. Resource agencies consulted also provided similar opinion on BBHP's attention to their compliance requirements.

Discussion of the FERC license, WQC and Settlement Agreement environmental, cultural and recreational requirements are discussed in the various Criteria discussion sections of this report.

1.3 Public Comment

Three comment letters were received by the LIHI on BBHP's application for certification for the Orono Project. The Penobscot Nation Department of Natural Resources and Trout Unlimited stated clear support for LIHI certification of the Project. The letter from the PRRT offers positive comments regarding the environmental benefits of the Settlement Agreement, and the part that the Orono Project plays in the overall program, although it does not specifically address their position on certification of the Orono Project. Subsequent discussions with Laura Rose Day on December 6, 2010, clarified that the PRRT, by policy, does not provide such specific endorsements regarding individual hydropower projects. In addition, she stated that she does not believe she has sufficient complete knowledge of the LIHI criteria to offer such a focused opinion. Copies of the comment letters are contained in Appendix A.

Per communication with Mr. Scott Hall of BBHP, letters were requested, but not received from the resource agencies regarding compliance with their latest recommendations for specified LIHI criteria, namely A.1, B.1, C.1, D.4, E.1 and E.5. As noted elsewhere in this report, it does not appear that the lack of letters was due to concerns on part of the agencies, as those consulted are supportive of BBHP's compliance activities.

2.0 CRITERIA ASSESSMENT

The Low Impact Hydropower Institute certifies those hydropower facilities that meet its eight criteria:

2.1 Criteria A - River Flows:

***Goal:** The facility (dam and powerhouse) should provide river flows that are healthy for fish, wildlife, and water quality, including seasonal flow fluctuations where appropriate.*

***Standard:** For instream flows, a certified facility must comply with resource agency recommendations issued after December 31, 1986, for flows. If there were no qualifying resource agency recommendations, the applicant can meet one of two alternative standards: (1) meet the flow levels required using the Aquatic Base Flow methodology or the “good” habitat flow level under the Montana-Tennant methodology; or (2) present a letter from a resource agency prepared for the application confirming the flows at the facility are adequately protective of fish, wildlife, and water quality.*

BBHP's Orono project is in compliance with resource agency recommendations issued after December 31, 1986 regarding flow conditions for fish and wildlife protection at the Project. A minimum flow of 200 cubic feet per second (cfs), maintenance of headpond levels to ensure flow release, and development of a plan for ensuring compliance are mandated for the Orono bypass reach in the WQC, and also adopted in the FERC license under Article 401. The Operation and Flow Monitoring Plan, following consultation with applicable resource agencies, was filed with FERC on June 8, 2006. No changes were recommended by any resource agency except the MDEP, whose comments were incorporated into the final Plan. Compliance with the headpond limits is monitored via multiple readings each day from a staff gauge, coupled with the fact that flows to Orono's impoundment are controlled by flows released from upstream BBHP projects (with a 12 hour flow travel time from West Enfield to Orono). Minimum flow is released through calculated flashboard openings. This Plan was approved by FERC, after follow-up consultation with the MDEP, in their Order dated October 30, 2006.

Review of FERC's database and consultation with Mr. Scott Hall of BBHP, indicated that there have been no deviations from the Projects' minimum flow requirements since the project restarted operations in January 2009. When consulted in the course of this review, Mr. Dana Murch of the MDEP did not indicate any concerns regarding compliance with flows requirements at the Project.

A. Flows – The Facility is in Compliance with Resource Agency Recommendations issued after December 31, 1986, as specified in the FERC license, WQC and Settlement Agreement, regarding flow conditions for fish and wildlife protection, mitigation and enhancement for both bypass reaches. FACILITY PASSES.

2.2 Criteria B - Water Quality:

Goal: *Water quality in the river is protected.*

Standard: *The water quality criterion has two parts. First, a facility must demonstrate that it is in compliance with state water quality standards, either through producing a recent (after 1986) Clean Water Act Section 401 certification, or demonstrating compliance with state water quality standards (typically by presenting a letter prepared for the application from the state confirming the facility is meeting water quality standards). Second, a facility must demonstrate that it has not contributed to a state finding that the river has impaired water quality under Clean Water Act Section 303(d) (relating to water quality limited streams).*

The Orono Project was issued a WQC by MDEP on December 15, 2004, which was incorporated into the FERC license. Based on review of the environmental assessment prepared for the Project, the run-of-river mode of operation, and through incorporation of conditions of the Settlement Agreement, the MDEP determined that Project operation as proposed, would result in affected waters remaining suitable for designated uses and meeting applicable water quality standards. The waters of the Stillwater Branch and the section of the Penobscot River affected by the Orono Project, including the impoundments, are classified as Class B. Class B waters are

considered unimpaired, and suitable for designated uses of drinking water supply after treatment, fishing, recreation in and on the water, and as habitat for fish and other aquatic life, in addition to use as process and cooling water supply and hydropower generation. Water quality sampling was conducted by Bangor Hydro in the course of application preparation, and the MDEP. The MDEP also conducted modeling to assess water quality conditions of the Penobscot River. The modeling and sampling all indicate that the Project waters attain standards for Class B waters.

The WQC included specific requirements for flow, headpond levels, fish passage and recreational features, which are addressed under the specific criteria sections of this report. No water quality monitoring is required. An amended WQC acknowledging compliance of upstream eel passage requirements of the WQC was issued June 17, 2008. No other conditions were changed. When consulted, Mr. Dana Murch of the MDEP did not indicate any concerns regarding water quality at the Project.

B. Water Quality – The Facility is in Compliance with all conditions issued pursuant to a Clean Water Act §401 in the Facility area and in the downstream reach. The reach of the Stillwater Branch upstream, at and downstream of the facility is identified by the state as meeting water quality standards (including narrative and numeric criteria and designated uses) pursuant to Section 303(d) of the Clean Water Act. - FACILITY PASSES

2.3 Criteria C - Fish Passage and Protection:

Goal: *The facility provides effective fish passage for riverine, anadromous and catadromous fish, and also protects fish from entrainment.*

Standard: *For riverine, anadromous, and catadromous fish, a facility must be in compliance with recent (after 1986) mandatory prescriptions regarding fish passage (such as a Fish and Wildlife Service prescription for a fish ladder) as well as any recent resource agency recommendations regarding fish protection (e.g., a tailrace barrier). If anadromous or catadromous fish historically passed through the facility area but are no longer present, the applicant must show that the fish are not extirpated or extinct in the area because of the facility*

and that the facility has made a legally binding commitment to provide any future fish passage recommended by a resource agency.

When no recent fish passage prescription exists for anadromous or catadromous fish, and the fish are still present in the area, the facility must demonstrate either that there was a recent decision that fish passage is not necessary for a valid environmental reason, that existing fish passage survival rates at the facility are greater than 95% over 80% of the run, or provide a letter prepared for the application from the U.S. Fish and Wildlife Service or the National Marine Fisheries Service confirming the existing passage is appropriately protective.

If a Mandatory Fish Passage Prescription for Riverine fish has been issued for the Facility, the Applicant must demonstrate that the Facility is in Compliance with the Prescription. For riverine, anadromous and catadromous fish, a Facility must also be in compliance with recent Resource Agency Recommendations regarding fish protection.

Fish passage requirements for the Orono Project, incorporated into the FERC license, are based on a Section 18 Prescription under the Federal Power Act issued by NOAA Fisheries, a preliminary Section 18 prescription by USF&WS and provisions in the Settlement Agreement. In a letter dated September 15, 2005, NOAA Fisheries confirmed, in essence, that its fishway prescription is consistent with the intent of the USF&WS's prescription, which is contained in Attachment A of the Settlement Agreement. NOAA Fisheries felt reserving their prescriptive authority to be consistent with the Settlement Agreement. This position was confirmed through consultation with Mr. Jeff Murphy, of NOAA Fisheries on December 19, 2010. Thus, the FERC license reserves prescription authority for both agencies. Under the WQC, MDEP additionally reserves its prescription rights under Section 18.

The following summarizes the current fish protection, upstream and downstream fish passage requirements at the Orono Project; the status of compliance is summarized in a separate discussion that follows. The fish passage requirements vary, based on the outcome of the actions that take place relative to Veazie, Great Works and Howland dams. As the PRRT has exercised the option to purchase these three projects and will close on the transfer imminently, only the

provisions relevant to the Orono Project that are triggered by their sale have been analyzed as part of this LIHI certification process, and incorporated herein. Requirements relative to other actions associated with these other dams, such as their removal or if they are not acquired, are identified in the FERC license Order dated December 8, 2005.

Upstream Anadromous Fish Passage - No upstream fish passage is required at the Orono Project until the Veazie and Great Works dams are removed and the Howland dam is removed or the bypass constructed. At that time, BBHP must file an amendment with FERC to authorize the installation and operation of a fish trapping facility.

Upstream Catadromous (Eel) Passage - BBHP was required to review with and obtain approval from applicable signatories to the Settlement Agreement for the design, construction schedule and O&M of upstream eel passage prior to the third eel migration period following signature of the Settlement Agreement, which was approximately May 2007.

Downstream Diadromous Fish Passage and Protection - BBHP was required to take the following actions related to downstream passage at the Orono Project:

- consult with applicable resource agencies and Settlement Agreement signatories on all facets of the downstream fish passage facilities design, constructions and testing;
- provide downstream passage for all target species within 3 years after the license was issued (i.e. December 2008). Target species include Atlantic salmon, American shad, alewife, blueback herring and American eel;
- operate downstream passage facilities whenever generation occurs during downstream migration periods;
- install trashracks with 1-inch clear openings at the turbine intake and construct a gated surface and bottom bypass discharging up to 70 cfs during the downstream migration period. The design, installation schedule and O&M Plan for these features must be filed with FERC within 6 months of the license (about June 2006); and
- if shown to be necessary by effectiveness studies, implement nightly shutdowns for downstream eel passage for a two week period during their migration period no sooner

than the expiration of the "safe harbor period" specified within the Settlement Agreement (i.e. ten years after the installed fish passage measures have been approved as "effective")

For all Upstream and Downstream Fish Passage Facilities - BBHP was required to prepare a plan(s) for monitoring the effectiveness the fish passage facilities; have the plan(s) reviewed and approved by applicable signatories to the Settlement Agreement and filed with FERC within 12 months of when the design drawings were due to FERC. The results of the studies resulting from plan implementation were to provide a basis for recommending expected future structural or operational changes at the project, resulting from probable generation expansion identified in the Settlement Agreement. If changes were found necessary to protect fisheries, BBHP was required to consult with the designated agencies to develop recommended measure for amelioration and file the recommendations to FERC for approval.

The following subsections summarize the status of compliance, to date, with the various passage requirements.

Upstream Anadromous Fish Passage - As the triggering actions for these requirements have not yet occurred, no licensing action has been taken relative to these requirements.

Upstream Catadromous (Eel) Passage - All requirements to date have been completed:

- On January 29, 2007, with concurrence of the resource agencies, a one year extension was sought from FERC for installation of the upstream eel passage, changing the installation dated form the 2007 migratory season to the 2008 migratory season. This extension was supported by the resource agencies and approved by FERC.
- Design/location drawings and the O&M Plan were filed with FERC on December 6, 2007, following agency review and comment. Reviewing agencies had no recommended changes. FERC and MDEP approved the design drawings and O&M plan on March 5, 2008 and January 16, 2008, respectively.
- The fish passage (effectiveness) assessment plan was filed with FERC on May 27, 2008 following agency consultation. All agencies concurred with the plan; a recommendation

made by NOAA Fisheries and USF&WS was incorporated. The plan was approved by MDEP on June 17, 2008 and by FERC on October 16, 2008.

- Following FERC's approval, the eel passage facility's initial installation occurred in late July of 2008. As FERC's March 22, 2007 Order conditioned installation "each May based on suitable river conditions," additional consultation was not required even though river conditions did not permit installation until high flows receded in July 2008.
- The first monitoring report for the upstream eel passage was submitted March 11, 2010 for year 2009. All agencies agreed with the report findings that no changes for the eel passage were necessary.

Downstream Diadromous Fish Passage and Protection - All requirements to date have been completed, although the results of the effectiveness studies are still under review as noted below:

- Preliminary passage designs were submitted in June 2008, and with final versions filed with FERC on September 24, 2008, following lengthy consultation with the agencies. Reviewing agencies had no recommended changes to the design drawings and O&M Plan. A recommendation made by NOAA Fisheries for access for agency sampling of migrants as agreed to be implemented in the future, as denoted in FERC's Order dated November 6, 2008 approving the design and O&M Plan.
- An extension was requested on December 4, 2008 (see Appendix B for a copy) for a one year delay of the installation of the downstream fish passage due to the lengthy consultation period for the design and subsequent poor fall weather and river conditions. Temporary measures were proposed to provide a downstream passage. This letter includes documentation of agency support for the revised schedule. The extension to 2009 for downstream passage installation was approved by FERC on January 14, 2009.
- The fish passage (effectiveness) study plan was filed with FERC on August 5, 2009 following agency consultation. The plan focused on juvenile salmon as eel passage as recommended by the agencies during a consultation meeting June 3, 2009. All agencies offering comment concurred with the plan with no changes, with the exception of the USF&WS. USF&WS offered six recommendations for plan changes. Consultation with Mr. Scott Hall of BBHP confirmed that all of the recommendations made by the USF&WS were incorporated into the 2010 effectiveness study. Consultation with Mr.

Fred Seavey, of USF&WS, confirmed he was satisfied with the protocols used in these tests. By FERC approval of the plan, BBHP will issue an annual report on the results of effectiveness studies of downstream passage by December 31 of each year.

- Replacement trash rakes having one-inch clear spacing was installed in January 2009. The fish passage was installed on June 1, 2009.
- The smolt effectiveness study report was issued for agency comment on November 23, 2010. Submission of the final report to FERC is scheduled for December 31, 2010. The USF&WS, NOAA Fisheries and MDMR declined to issue preliminary comment on the draft report when contacted as part of this LIHI review.

Based on the review of documents and consultation with resource agencies, BBHP is in compliance with all fish passage requirements to date at the Orono Project. Upstream eel passage facilities were deemed to be effective. While the downstream passage facilities have not yet been confirmed to provide safe and efficient passage, all studies required to date have been completed in compliance with technical and schedule license requirements and agency recommendations. Also, as noted in BBHP's transmittal email dated November 23, 2010 (see Appendix B), they are committed to make structure modifications and study plan refinements, if found necessary by resource agencies, and will repeat the effectiveness studies in 2011, in compliance with resource agency recommendations, the FERC license, WQC and Settlement Agreement. Future operational changes at the Project may necessitate modifications to these downstream facilities. Also, there is a legally binding commitment (via the FERC license and Settlement Agreement) to install upstream anadromous fish passage at this facility upon certain triggering actions. Agencies contacted are generally supportive of BBHP's compliance activities, although MDMR's representative did state that additional enhancement measures could still be implemented, although these were not adopted into the Settlement Agreement.

C. Fish Passage and Protection – Mandatory Fish Passage Prescriptions for fish entrainment protection, and upstream and downstream passage of anadromous and catadromous fish, but not riverine fisheries, were issued by Resource Agencies after December 31, 1986. The Facility is in compliance with current Resource Agency

Recommendations for fish entrainment protection and fish passage requirements.

FACILITY PASSES.

2.4 Criteria D - Watershed Protection:

***Goal:** Sufficient action has been taken to protect, mitigate and enhance environmental conditions in the watershed.*

***Standard:** A certified facility must be in compliance with resource agency recommendations and FERC license terms regarding watershed protection, mitigation or enhancement. These may cover issues such as shoreline buffer zones, wildlife habitat protection, wetlands protection, erosion control, etc. The Watershed Protection Criterion was substantially revised in 2004. The revised criterion is designed to reward projects with an extra three years of certification that have: a buffer zone extending 200 feet from the high water mark; or, an approved watershed enhancement fund that could achieve within the project's watershed the ecological and recreational equivalent of land protection in D.I., and has the agreement of appropriate stakeholders and state and federal resource agencies. A Facility can pass this criterion, but not receive extra years of certification, if it is in compliance with both state and federal resource agencies' recommendations in a license-approved shoreland management plan regarding protection, mitigation or enhancement of shorelands surrounding the project.*

The Orono Projects does not have a conservation buffer zone, watershed enhancement fund, watershed land protection plan nor a shoreland management plan. The FERC boundary for the Project primarily contains only the land necessary for operation and maintenance of the project facilities. The area surrounding the Project land is relatively developed.

Most state and federal agencies which typically require development of such watershed protection requirements, such as the USF&WS, NPS, MIF&W, were all signatories to the Settlement Agreement. According to Mr. Steve Timpano, of MIF&W, during these negotiations, these agencies did not determine that such land protection instruments were required for the project. The Maine Department of Conservation (MDOC) is another state agency that typically

reviews hydropower projects and provides recommendations regarding the need for a shoreland management plan, if recreational access is a need in the area. The MDOC was not party to the Settlement Agreement process. Discussion with Ms. Katherine Eickenberg of the MDOC, confirmed that such land protection measures were not found to be required at the Orono Project. Article 403 of the FERC license does require that forested riparian habitat areas at the Project be maintained in an undisturbed condition to protect bald eagle habitat. If project activities require disturbance or modification of such habitat areas, consultation with the USF&WS and MIF&W is required, and approval must be sought from FERC. To date, such activities have not occurred per communications with Mr. Scott Hall of BBHP and Mr. Steve Timpano of MIF&W.

Article 407 requirements dealing with "Use and Occupancy" of project lands also offer some watershed protection as allowable uses "must be consistent with the purposes of protecting and enhancing the scenic, recreational and other environmental values of the project". Finally, activities at the Project that may cause land disturbance are subject to standard requirements for erosion and sedimentation control, and state regulated setback requirements.

D. Watershed Protection – The Project is not required to have a designated buffer conservation zone, approved watershed enhancement fund, watershed land protection plan nor a shoreland management plan under the Settlement Agreement which was signed by appropriate stakeholders and state and federal resource agencies. The facility is in compliance with license Articles related to habitat preservation and land uses around the project which are consistent with protecting environmental values of the project. - FACILITY PASSES.

2.5 Criteria E - Threatened and Endangered Species Protection:

Goal: *The facility does not negatively impact state or federal threatened or endangered species.*

Standard: *For threatened and endangered species present in the facility area, the facility owner/operator must either demonstrate that the facility does not negatively affect the species, or*

demonstrate compliance with the species recovery plan and any requirements for authority to “take” (damage) the species under federal or state laws.

Impacts to both state and federally listed protected species were investigated by PPL Maine during their application for redevelopment of the Orono Project. The Environmental Assessment (EA) prepared for the project and issued for review by FERC on August 19, 2005, does not specifically discuss state-listed species. Consultation with Mr. Steve Timpano of MIF&W, confirmed that no state listed species are expected to be negatively impacted by the operation of the Orono Project.

The EA found that the bald eagle was the only federally listed species in the project area. During consultation in 2005, the USF&WS stated that the nesting population of bald eagle in the Lower Penobscot Basin in 2004 was about 325 pair. USF&WS noted it is not unusual to see eagles foraging in the Orono Project area year-round. As a result, Article 403 of the license required consultation with MIF&W and USF&WS if activities at the Project modify or disturb such habitat at the Project. To date, such activities have not occurred per communication with Mr. Scott Hall of BBHP. Likewise, the MIF&W did not identify any such concerns. Since license issuance, the Bald Eagle, was de-listed federally in 2007, and in 2009 in the State of Maine, but is still protected by the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act.

Two currently endangered fish species - shortnose sturgeon and the Gulf of Maine Distinct Population Segment (DPS) of Atlantic salmon - are found in areas further downstream. The Gulf of Maine DPS of Atlantic salmon was listed in 2009. The 2005 EA states that other studies have shown that the upstream limit of the shortnose sturgeon population range for all northeast rivers supporting sturgeon, except the Connecticut River, is at the first dam on the river. The EA reported that most likely upstream extent of this species in the Penobscot River is at the Veazie Dam which is the first obstacle to fish passage, about six miles downstream of the Orono Project. Information presented in the Environmental Assessment prepared in 2010 for the removal of the Veazie and Great Works Dams, indicated that shortnose sturgeon use the Penobscot River downstream of the Veazie Dam for feeding and overwintering, but no spawning by this species

in the Penobscot River has been documented to date. The Atlantic salmon is found downstream of the former site of the Bangor dam, about 9 miles downstream of the Orono Project.

In the 2010 EA, the USF&WS noted that redeveloping the Orono Project as part of the Settlement Agreement would result in improved conditions for fish and enhanced fish runs. This reports also states that operation of the Orono Project, as run-of-river, would not affect habitat conditions in the area below the Veazie Dam, thus negative impacts to shortnose sturgeon and Atlantic salmon are not expected.

Both MIF&W and USF&WS are signatories to the Settlement Agreement. The only provisions within the Settlement Agreement directly pertaining to federal or state endangered and threatened species is that the USF&WS agrees to negotiate with the project owner for an appropriate instrument under the Endangered Species Act regulations, such as but not limited to, an incidental take permit or a Candidate Conservation Agreement with Assurances, that recognizes the benefits to Atlantic salmon resulting from implementation of the numerous provisions of the Settlement Agreement.

A Recovery Plan for the Gulf of Maine DPS Atlantic salmon was issued in 2005, but is currently under revision according to Mr. Jeff Murphy of NOAA Fisheries. A Final Recovery Plan for Shortnose sturgeon was issued in December 1998, by NOAA Fisheries. While this species is currently not found at the Orono Project, the river restoration activities of the Settlement Agreement for the lower Penobscot River Basin, including removal of certain downstream dams and installation of upstream fish passage at others, appears to be in conformance with the Recovery Plan.

Because the Penobscot run of Atlantic salmon was added in 2009 to Gulf of Maine DPS listed as endangered, and shortnose sturgeon would potentially have access to these waters upon removal of the downstream dams, BBHP is working with the USF&WS and NOAA Fisheries to develop a species protection plan(s), for both species, for BBHP's Orono and Stillwater Projects. Emails between Mr. Scott Hall of BBHP and Mr. Jeff Murphy of NOAA Fisheries, and between Mr. Murphy and P. McIlvaine, confirming this ongoing plan development, are included in Appendix

C of this report. The initial sections of the plan have been drafted by BBHP and are currently under agency review. The complete draft plan(s) are expected to be issued for agency review and comment shortly, with the final plan(s) finalization within the first quarter of 2011. As the plans are still in draft form this time, when consulted, Mr. Murphy could not confirm that the draft Species Protection Plan(s) are in conformance with the yet to be updated Recovery Plan.

E. Threatened and Endangered Species Protection – There are two endangered species (Atlantic salmon and shortnose sturgeon) listed under the federal Endangered Species Act that are not currently present in the vicinity of the Facility but may become present upon removal of a downstream dam. The applicant is working in consultation with federal agencies in the development of a species protection plan for both species. FACILITY PASSES

2.6 Criteria F - Cultural Resource Protection:

Goal: *The facility does not inappropriately impact cultural resources.*

Standard: *Cultural resources must be protected either through compliance with FERC license provisions, or, if the project is not FERC regulated, through development of a plan approved by the relevant state, federal, or tribal agency.*

According to FERC's Order dated December 8, 2010, the Maine Historical Preservation Commission, State Historic Preservation Officer (SHPO), in its letter dated March 14, 2004, reported that there are no known properties in the Orono Project area of prehistoric, historic, architectural or archaeological significance that would be adversely affected by project licensing. As noted in the EA, PPL Maine also consulted with the Penobscot Tribal Historic Preservation Officer (THPO) regarding the project licensing, and confirmed at that time that there were no cultural, historic or archaeological issues. Comments issued on the EA on behalf of the PIN, the applicant and other Conservation Interests, supported the EA findings on this issue. To address the potential for new discovery of culturally significant resources, Article 405 of the FERC license requires BBHP to consult with the SHPO and THPO if any archaeological or cultural sites are

discovered during ground-disturbing or land-clearing activities. No such activities have occurred to date per communication with Mr. Scott Hall of BBHP. Recent consultation with Ms. Bonnie Newsom, THPO for the PIN, confirmed that she was involved in the settlement process and is very satisfied with the consultation conducted by Mr. Scott Hall, who has been with this Project since ownership by Bangor Hydro. She has no doubt that should any issues arise in the future that the PIN's concerns would be honored and resolved.

F. Cultural Resources – The Facility is in Compliance with all requirements regarding Cultural Resource protection, mitigation or enhancement included in the FERC license - FACILITY PASSES.

2.7 Criteria G - Recreation:

***Goal:** The facility provides free access to the water and accommodates recreational activities on the public's river.*

***Standard:** A certified facility must be in compliance with terms of its FERC license or exemption related to recreational access, accommodation and facilities. If not FERC-regulated, a facility must be in compliance with similar requirements as recommended by resource agencies. A certified facility must also provide the public access to water without fee or charge.*

Per Article 404 of the license, and Condition 3 of the WQC, BBHP is required to implement the Recreation Plan submitted to FERC as part of the license application. That plan includes the maintenance of a portage trail around the project, having an upstream take-out point and downstream put-in location, and that documentation of implementation of the Plan shall be filed with FERC. In their letter dated June 1, 2006, FERC confirmed that PPL Maine was in compliance with the requirements of Article 404. A FERC Environmental Inspection on September 15, 2009 confirmed that these recreational features are well maintained and possess clearly marked signage to facilitate public use.

BBHP provides free public access to this trail, the reservoir and downstream reaches without fees or charges. BBHP is also working with the Town of Orono on a voluntary basis to develop a City sponsored loop trail that would include property owned by BBHP at the Orono project.

G. Recreation – The Facility is in Compliance with all requirements regarding Recreation protection, mitigation or enhancement included in the FERC license and allows access to the reservoir and downstream reaches without fees or charges - FACILITY PASSES

2.8 Criteria H - Facilities Recommended for Removal:

***Goal:** To avoid encouraging the retention of facilities which have been considered for removal due to their environmental impacts.*

***Standard:** If a resource agency has recommended removal of a dam associated with the facility, certification is not allowed.*

No resource agency has recommended removal of the dam associated with the Orono Project.

H. Facilities Recommended for Removal – There are no Resource Agency Recommendations for removal of the dam associated with the Facility - FACILITY PASSES.

3.0 RECOMMENDATION

This application review was conducted by Patricia McIlvaine, Project Manager with Wright-Pierce. This review of BBHP Hydro LLC's application for certification of the Orono Project as a "low impact hydropower facility" under the criteria established by the LIHI consisted of the following:

- review of information submitted by the applicant both in the initial application package and in response to document requests and questions raised by me;
- review of additional documents obtained from the FERC on-line database and BBHP's website available for public review; and
- consultation with the resource agency and non-governmental personnel listed in Section 4.0 of this report.

I believe that the Orono Project is in compliance with all of the criteria required for LIHI certification. BBHP's commitment to ensuring compliance with all environmental, recreational and cultural resource obligations specified in the FERC license, WQC and Settlement Agreement is apparent from review of the numerous documents and reports prepared by BBHP. All resource agency and non-governmental organizations reached through telephone consultation provided consistent positive opinions about BBHP's cooperation through the license compliance activities.

In summary, I recommend that the Orono Project be certified as a "low impact hydropower facility" under the criteria established by the LIHI. However, due to the ongoing development of certain aspects of their environmental protection measures, I recommend that this certification contain the following conditions:

- This certification review is based on the presumption that the final transfer to the PRRT of the Great Works, Veazie and Howland Projects will occur, and the fish passage protection provisions associated with that aspect of the Settlement Agreement will be implemented. Should the transfer not take place, and if LIHI certification is still desired, then re-analysis of the Orono Project against LIHI certification criteria, incorporating the alternative fish passage provisions must be requested / performed.

- As the requirement for upstream fish passage will be triggered upon final closure on transfer of the Great Works, Veazie and Howland Projects to the PRRT, which is expected to occur within the term of LIHI certification, future annual status of compliance reports to LIHI must include appropriate documentation to demonstrate compliance with these requirements, in addition to other standard status reporting requirements.
- BBHP shall provide LIHI evidence of resource agency and FERC approval of their final 2010 fish passage study, including all resource agency comments received. LIHI certification is contingent upon continued implementation of required structure and study plan modifications, as well as timely re-testing of these passage facilities in 2011, in compliance with resource agency requests, demonstrating that safe and effective passage is occurring. LIHI shall be provided a copy of all filings made pursuant to the 2011 studies.
- BBHP shall provide LIHI evidence of the agencies' approval of the Species Protection Plan currently under development for the Atlantic salmon and shortnose sturgeon. Also, LIHI shall be provided a copy of any documentation required of BBHP for agency submission, confirming that required compliance activities under the Plan for the Orono project are being met.

LIHI would reserve authority to suspend or revoke certification if any of the conditions are not successfully satisfied.

This certification does not include modifications to the Orono Project associated with the planned development of a second powerhouse and generation capacity additions. Should such modifications receive FERC approval within the term of this LIHI certification, such changes would require submission of a new application for certification of the Orono Project in order to assess compliance of the augmented project with LIHI certification criteria.

4.0 RECORD OF COMMUNICATIONS

This section documents the contacts made with resource agencies, other interested parties and the applicant during the review of this application. A summary of the comments is included. Contact was made primarily with the key resource agencies as questions or clarifications needed to complete the application review involved these agencies. While BBHP provided a contact for each organization involved in the Settlement negotiations, many were not consulted as there were no questions involving their area of expertise. Key email communications are contained in Appendix C.

Communications Made

Date of Communication	Telephone calls on 11/22 and 24/10 and emails 12/6, 7 and 8, 2010
Application Reviewer	Patricia McIlvaine
Person Contacted	Mr. Scott Hall Black Bear Hydro Partners
Telephone and email address	207-827-5364; shall@blackbearhydro.com
The purpose of the November telephone calls 2010 was to inform Mr. Hall that if he desired review of the Orono Project by LIHI at this time, that the application cannot reference certification of the future generation expansion, as that new generation has not yet received regulatory approval. He re-submitted the application on 12/2/10. I contacted Mr. Scott Hall on a number of occasions via email to obtain additional documents applicable to the Orono Project to support the various responses included in the application. Emails were limited to requests and responses for licensing and agency documents to support the application.	

Date of Communication	Telephone call on 12/6/10
Application Reviewer	Patricia McIlvaine
Person Contacted	Laura Rose Day Penobscot River Restoration Trust
Telephone	207-430-0014
I contacted Ms. Day to discuss the comment letter that PRRT submitted to LIHI regarding the application made for the Orono Project as it did not specifically address whether or not PRRT believed the Project should be certified as a "low impact" hydro facility. She stated that the PRRT, by policy, does not provide such specific endorsements regarding specific hydropower	

projects. In addition, she stated that she does not believe she has sufficient complete knowledge of the LIHI criteria to offer such a focused opinion. She does however support the overall river basin restoration project due to its many environmental benefits.

Date of Communication	Telephone calls 12/2/10 and 12/6/10
Application Reviewer	Patricia McIlvaine
Persons Contacted	Steve Timpano ME Dept of Inland Fish & Wildlife
Telephone	207-287-5258
<p>Mr. Timpano stated that BBHP has been very cooperative with the resource agencies in complying with the requirements of their license and Settlement Agreement. Activities are progressing on schedule with no new issues arising. He stated that MDIF&W and Maine Department of Conservation (MDOC) are the state agencies that typically would require development of land protection measures such as a shoreland management plan for Projects where it was determined that public access was required for hunting or angling activities, or where habitat preservation for protected species was determined to be necessary. None of these were determined necessary for the Orono Project. Sufficient public access to the impoundment and river was already available. He stated that MDOC did not participate in the Settlement negotiations, and suggested contacting Katherine Eickenberg to confirm the reason the MDOC was not involved. Regarding protected species, Mr. Timpano confirmed that no state listed endangered or threatened species are expected to be negatively impacted by the operation of the Orono Project, which is why the EA appears to be "silent" on the issue. While Mr. Timpano stated that at the time of the Settlement Agreement, currently listed mussels and dragon flies were not recognized as species of concern, he did not identify impacts to them as a concern for the Orono Project. He confirmed that the bald eagle was delisted in 2009 in the State of Maine, but is still protected by the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. The bald eagle is still known to feed in the area but is not known to nest near the Project. The entire area however is still listed as essential nesting habitat for the eagle, but that standard Project activities would not negatively affected the use of the project area by eagles.</p>	

Date of Communication	Telephone call on 12/2/10
Application Reviewer	Patricia McIlvaine
Person Contacted	Ms. Katherine Eickenberg Maine Department of Conservation
Telephone	207-287-4963
<p>Ms. Eickenberg confirmed that neither she nor any of the current staff at the MDOC were at the MDOC during the Settlement Agreement negotiations for the Penobscot projects. She did state that if the other participating Maine agencies believed that such land management protection</p>	

requirements were important at the Orono Project, than the MDOC likely would have been involved, given the high profile of the overall Penobscot River restoration project. The participation of the Maine State Planning Office, MIF&W and NPS in the negotiations, likely supported the decision made at that time that the MDOC would have been involved in the settlement discussions, if any issues critical to the agency needed to be addressed. Issues typically of concern to the MDOC include those previously identified by Mr. Steve Timpano. She also stated that land protection measures are typically not incorporated at projects that have small impoundments, and especially where the project owner has limited land ownership and the surrounding area has existing development.

Date of Communication	Telephone call on 12/2/10 and 12/20/10 Email on 12/09/10
Application Reviewer	Patricia McIlvaine
Person Contacted	Fred Seavey USF&WS
Telephone and email address	207-866-3344; fred_seavey@fws.gov
In response to my initial call, Mr. Seavey confirmed that USF&WS did not issue a final Section 18 fish passage prescription for Orono; only a preliminary one was issued which was incorporated into the Settlement Agreement. However compliance with the requirements identified in the Settlement Agreement would satisfy USF&WS's primary concerns. So far, he is content with the compliance activities undertaken by BBHP at the Orono project which were dictated by the Settlement Agreement. He feels BBHP is generally responsive to their requests and has been good to work with. Regarding my 12/09/10 email, he did state that his primary concerns associated with the downstream fish passage effectiveness study protocols were addressed. BBHP did agree to conduct radio-tagging of a sub-sample of smolts to assess their path of passage, and the testing was done as close to his recommended flow conditions as possible. He has not yet completed his review of the study results on the testing completed this year. He commented that no upstream fish passage was deemed required for the Orono and Stillwater Projects as part of the compromise reached during settlement negotiations. It was determined that as the Stillwater Branch receives 8 to 30% of the river flow, that it was more beneficial for overall fish restoration of the river basin to concentrate the upstream passage for the main stem of the river via state-of-the-art upstream passage at the Milford Project.	

Date of Communication	Telephone calls on 12/2/10 and 12/6/10 Email on 12/09/10 and 1/4/11; responses on 12/14/10 and 1/4/11
Application Reviewer	Patricia McIlvaine
Person Contacted	Mr. Jeff Murphy NOAA National Marine Fisheries
Telephone and email address	207-866-7379 jeff.murphy@noaa.gov
While I did not receive a telephone call response, the email responses I received on 12/14/10 and 1/4/11 are attached in Appendix C. As appropriate, key aspects of those communications have been incorporated into the criteria sections of the report.	

Date of Communication	Telephone calls on 12/20/10 and 1/4/11
Application Reviewer	Patricia McIlvaine
Person Contacted	Dana Murch MDEP
Telephone	207-287-7784
Mr. Murch and I discussed his opinion on the overall compliance activities conducted by BBHP. Mr. Murch stated that working with Mr. Scott Hall, who worked for PP&L, and now BBHP, on the Penobscot Projects, has been refreshing in that his approach to compliance is to "do things properly". BBHP activities on eel passage have far exceeded those of any other Project owners in Maine. When I asked if he would share his thoughts on the recent downstream fish passage effectiveness study, he stated that he plans on supporting any position taken by the ME Department of Marine Resources, as his specific expertise is not on fish passage. Mr. Murch did report that he is not aware of any minimum flow deviations or water quality issues at the Project.	

Date of Communication	Telephone call on 1/4/11
Application Reviewer	Patricia McIlvaine
Person Contacted	Ms. Bonnie Newsom PIN Tribal Historic Preservation Officer
Telephone and email address	207-817-7332
Ms. Newsom stated she was party to the Settlement Agreement and has worked with Mr. Scott Hall on the Penobscot Projects since they were owned by Bangor Hydro. She stated she is very satisfied with all of the past and current consultation conducted by Mr. Hall regarding tribal cultural resources. She stated she has no doubt that should any issues arise in the future, that the PIN's concerns would be honored and resolved by BBHP.	

Date of Communication	Telephone calls on 12/20, 22, and 29/10 and 1/7/11
Application Reviewer	Patricia McIlvaine
Person Contacted	Mr. Patrick Keliher Mr. Norm Dube Maine Department of Marine Resources
Telephone	207-941-4453
<p>Mr. Dube returned my calls to Mr. Patrick Keliher. Mr. Dube stated he was not prepared to offer any comments on the Department's review of the draft smolt effectiveness study report, as the review comments have not been approved by Department Management. When asked about BBHP's overall compliance activities, Mr. Dube stated that all required activities have been completed to date in accordance with the license and Settlement Agreement, although that is not to say that additional activities or protection measures could not be employed to even further enhance fisheries protection.</p>	

APPENDIX A

COMMENT LETTERS RECEIVED BY LIHI

Patricia B. McIlvaine

From: Fred Ayer [fayer@lowimpacthydro.org]
Sent: Monday, August 02, 2010 7:20 AM
To: pbm@wright-pierce.com
Subject: Fwd: Certification of the Orono, Stillwater, and Medway Hydroelectric Project

Pat, Here it is. Cheers, Fred

----- Forwarded message -----

From: John Banks <John.Banks@penobscotnation.org>
Date: Fri, Jul 30, 2010 at 1:20 PM
Subject: Certification of the Orono, Stillwater, and Medway Hydroelectric Project
To: "info@lowimpacthydro.org" <info@lowimpacthydro.org>

Dear Mr.Ayer,

The Penobscot Nation Department of Natural Resources (PIN/DNR) has reviewed the three projects along with the certification criteria for low impact certification through your institution (LIHI).

It appears that the three projects meet all applicable criteria and I hereby express the support of PIN/DNR for the approval of LIHI certification for these three projects.

Thank you.

Sincerely,

John S.Banks
Director of Natural Resources
Penobscot Nation
12 Wabanaki Way
Indian Island, ME 04468
(207)817-7330
(207)356-5022 (cellular)
(207) 817-7466 (Fax)
john.banks@penobscotnation.org

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Fred Ayer
Executive Director
Low Impact Hydropower Institute
207-773-8190
fayer@lowimpacthydro.org

Patricia B. McIlvaine

From: Fred Ayer [fayer@lowimpacthydro.org]
Sent: Monday, August 02, 2010 7:14 AM
To: pbm@wright-pierce.com
Subject: Fwd: BBHP Application for Stillwater, Orono and Medway

Pat, Here's a comment letter and another will follow. Cheers, Fred

----- Forwarded message -----

From: **Laura Rose Day** <laura@penobscotriver.org>
Date: Sun, Aug 1, 2010 at 4:59 PM
Subject: BBHP Application for Stillwater, Orono and Medway
To: info@lowimpacthydro.org

July 31, 2010

Mr. Fred Ayer, Executive Director

Low Impact Hydropower Institute

34 Providence Street

Portland, ME

04103

RE: Pending Application for LIHI certification for the Stillwater (FERC No. 2712), Orono (FERC No. 2710) and Medway (FERC No. 2666) Projects

Dear Fred,

The Penobscot River Restoration Trust ("Penobscot Trust") appreciates the opportunity to submit the following comments on the Low Impact Hydropower Institute's ("LIHI") Pending Application for the proposed LIHI certification of the Pending Application for LIHI certification for the Stillwater (FERC No. 2712), Orono (FERC No. 2710) and Medway (FERC No. 2666) Projects.

The Penobscot Trust is a 501(c)(3) not-for-profit organization whose sole mission is to restore the Penobscot River ecosystem by implementing the historic Penobscot Agreement, a roadmap for

8/9/2010

innovative, public-private plan for river restoration. The Penobscot Trust's board includes representatives of the Penobscot Indian Nation and six conservation organizations (Atlantic Salmon Federation, Natural Resources Council of Maine, American Rivers, Trout Unlimited, Maine Audubon, and The Nature Conservancy) as well as three individual trustees.

The Agreement calls for the Trust to purchase three dams, remove the two lowermost dams, and bypass a third further inland. It also calls for fish passage improvements and conditions at several others dams, including the three that Black Bear Hydro has proposed for certification. Parties to the Penobscot Agreement include the Penobscot Indian Nation, PPL Corporation, the United States Department of the Interior (Bureau of Indian Affairs; National Park Service; and U.S. Fish and Wildlife Service); the State of Maine (State Planning Office, Inland Fisheries and Wildlife, and the Department of Marine Resources, and several conservation organizations (Atlantic Salmon Federation, Natural Resources Council of Maine, American Rivers, Trout Unlimited, Maine Audubon).

Black Bear Hydro Partners became a party to the Agreement when it purchased several of PPL's assets in 2009, assuming all obligation under the agreement. The Penobscot Trust has exercised its option and is preparing to close on three dams that remain in PPL's ownership – Veazie, Great Works and Howland. We will, therefore, cooperate and otherwise work BBHP in various capacities as we move forward to implement the project over the coming years.

The Stillwater, Orono and Medway Projects are integral to the Penobscot Agreement. In the context of the overall Penobscot Agreement, provisions governing these dams play an important role in achieving an improved balance between hydropower and fisheries on the Penobscot River. As a whole, the project will significantly decrease the cumulative impact of dams in the lower Penobscot River system on fish passage, contributing significantly to the Agreement's overall goal of significantly increasing migratory access to nearly 1000 miles of habitat for Atlantic salmon and ten other sea-run fish. We urge you to fully consider this tremendous ecological benefit as you consider BBHP's application.

Please note that the Penobscot Trust's primary focus is the role that hydropower projects, including the projects proposed for certification, play in restoring sea-run fisheries of the Penobscot River, particularly their role in the Penobscot Project. We recognize, however, that although it is far-reaching and historic in its contributions to the restoration of the Penobscot River's sea-run fisheries, the project not designed to address every issue in the entire Penobscot River system, and our comments do not relate to any appropriate fisheries objectives beyond the scope of the Penobscot Project.

Finally, in general and apart from this particular certification, one of the lessons of the Penobscot Project is how much can be accomplished by appropriately considering the impacts of facilities over time both at specific sites and the cumulative impacts of projects. We encourage LIHI to pursue continuous improvement of its criteria to ensure that LIHI certifications are applied to exemplary projects that truly play a long-term, exemplary role in protecting and restoring the full range of assets that rivers provide.

Thank you for the opportunity to provide input; I hope these comments are helpful to you. If you have any questions, please feel free to contact me at (207) 232-5976.

Sincerely,

Laura Rose Day

(207) 232 5976

laura@penobscotriver.org

--
Fred Ayer
Executive Director
Low Impact Hydropower Institute
207-773-8190
fayer@lowimpacthydro.org

8/9/2010



**P.O. Box 2613
Augusta, Maine 04338**

August 2, 2010

Mr. Fred Ayer, Executive Director
Low Impact Hydropower Institute
34 Providence Street
Portland, ME
04103

RE: Orono Hydroelectric Project
FERC No. P-2710

Dear Fred:

On behalf of Trout Unlimited (TU), I hereby submit the following comments on the Low Impact Hydropower Institute's ("LIHI") Pending Application for the proposed LIHI certification of Black Bear Hydro Partners' Orono hydroelectric project on the Stillwater branch of the Penobscot River in Orono, Maine.

As you know, TU is national organization whose mission is to conserve, protect and restore North America's trout and salmon and their habitat. To that end, TU's membership and staff has worked for more than 30 years to address the substantial impacts of hydroelectric developments on fish passage, in-stream flows and fish habitat. TU participated in the negotiations leading up to the Penobscot River Restoration Agreement, and TU was a signatory to the 2004 Multi Party Agreement (MPA) on the Penobscot.

At the time of the 2004 MPA, the Orono Project had been inoperable for about 8 years. As part of a balanced package intended to dramatically improve habitat and access to habitat for sea-run fish and to maintain hydropower generation on the Penobscot River, PPL-Maine received support for—and applied to FERC for and received—a new license to operate the Orono Project. PPL proceeded to put the Orono Project back into operation. Black Bear subsequently acquired the project and is currently operating it and planning for potential future increases in generation at the site.

TU believes that the Orono Project should qualify for certification by LIHI, and TU supports Black Bear's application. We offer the following comments on the Orono Project's compliance with LIHI's standards:

Flows: The Orono Project is operated as a run-of-river project.

Water Quality: The State of Maine has issued a 401 Water Quality Certificate and TU is unaware of any water quality problems caused by the existence or operation of the Orono Project.

Fish Passage: TU would not ordinarily support certification of a project that has not constructed and tested permanent upstream and downstream fish passage for native diadromous fish. However, in this case Black Bear's application is offered in the context of an agreement that although it does not provide immediate upstream and downstream passage for all species, was agreed to by state and federal fisheries agencies, the Penobscot Indian Nation, and several environmental groups, including TU. Importantly, the agreement (1) provides a framework for future fish passage at the Orono Project; and (2) provides a mechanism by which fish passage past the project (and the upstream Stillwater Project) is substantially enhanced through the removal of the Veazie and Great Works dams on the mainstem Penobscot River, which offers an alternative and preferable migration corridor. In this context, TU believes the passage provisions in LIHI's criteria are met.

Watershed Protection: The Orono Project meets LIHI's standards. TU notes that the project impoundment is small, located in an urban/suburban area and surrounded by a significant amount of development, and isolated on a river channel that is just one side of a large island.

Threatened and Endangered Species: Atlantic salmon, and, after the removal of the Veazie Dam, shortnose sturgeon, are present in the Penobscot River below the Orono Project, and a portion of the river's population of Atlantic salmon smolts passes through the project each spring. TU notes the correspondence with Jeff Murphy of NOAA Fisheries that Black Bear which Black Bear has shared. This indicates that Black Bear is currently working with NOAA on a "Species Protection Plan" for Atlantic salmon at the Orono and Stillwater Projects. In order to ensure that Atlantic salmon are adequately considered in LIHI's certification, TU suggests that LIHI require that Black Bear complete consultation on the Species Protection Plan and implement any measures required by it as a condition of certification.

Recreation: The Orono Project has adequate public access and provisions for recreation on its small impoundment.

Facilities Recommended for Removal: To our knowledge, removal of the Orono Project has never been suggested by any agency. LIHI should be aware, however, that removal of the Veazie and Great Works Project has been recommended by multiple agencies, NGO's and the Penobscot Indian Nation, and that the hydropower improvements at the Orono Project are an integral part of the agreement that will result in their removal. TU asks LIHI to consider the Orono Project's contribution to achieving this benefit as part of its consideration.

Conclusion

Trout Unlimited supports Black Bear's application for certification of the Orono Project. In recognition of its relatively low environmental impact, and particularly in light of its contribution to the improvements in fish passage in the lower Penobscot River watershed, TU urges LIHI to approve Black Bear's application. As noted above, we believe that successful completion and implementation of the Species Protection Plan that is currently in development should be a condition of certification.

Thank you for this opportunity to comment.

Sincerely,

Jeff Reardon
New England Conservation Director
(207) 615 9200
jreardon@tu.org

APPENDIX B

KEY RESOURCE AGENCY DOCUMENTS REFERENCED IN THIS REVIEW REPORT

ORIGINAL

PPL Maine, LLC
Davenport Street
P.O. Box 276
Milford, ME 04461-0276
Tel. 207.827.2247 Fax. 207.827.4102



4 December 2008

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

**RE: REQUEST FOR EXTENSION OF TIME TO COMPLY WITH
DOWNSTREAM FISH PASSAGE REQUIREMENTS
ARTICLE (E) – ORONO HYDRO PROJECT (FERC NO. 2710)**

1048

Dear Ms. Bose:

By order dated 8 December 2005 (Orono) the Commission issued a new license, consistent with the Lower Penobscot River Multiparty Settlement Agreement (Agreement). Specifically, the above-referenced article included a requirement to provide for downstream fish passage measures at the Orono Hydroelectric project by the end of 2008. The purpose of this filing is to request an extension of time to complete all of the necessary downstream passage enhancements.

Background

By order dated 8 December 2005 (113 FERC 62,181), the Federal Energy Regulatory Commission (Commission or FERC) issued a new license for the Orono Hydroelectric project (FERC No. 2710). As described in Article E, the new license is subject to the fish passage prescriptions consistent with the Agreement and submitted by the U.S. Department of Interior and the U.S. Department of Commerce under Section 18 of the Federal Power Act for the Orono Project. The water quality certification issued by the Maine Department of Environmental Protection (MDEP) also contains a similar requirement for downstream fish passage (Condition 2.C.)

The new license calls for PPL Maine to design and install a downstream fish passage facility by the end of 2008. The license also calls for design drawings and an O&M plan to be prepared in consultation with state and federal resource agencies, and the Penobscot Indian Nation. The fish passage requirements also include the installation of trashracks with 1-inch clear opening at the turbine intakes.

Accordingly, back in June 2008 we forwarded the draft design plans with the expectation that we could finalize the design, obtain FERC/MDEP approval, and install the measures by late summer/early fall before river and weather conditions deteriorated. After

considerable consultation we were able to finalize the modified design and subsequently file the final version with FERC and the MDEP in late September. We received the initial FERC approval in November 2008 with the MDEP approval request still pending. In addition, pursuant to Article 302 of the Orono Project license, we will be to filing for approval of the construction details from FERC's New York Regional Office (required at least 60 days prior to construction) within the next week. At this point, also compounding the challenge of fabricating and installing the fishway in early winter was the significant rain events in November which resulted in our current high river flows. In order to complete installation we will need to have divers in the river and employ a very large crane to lift the components over the penstock. Obviously, with high river flows we can not subject divers and our crew to the safety hazards of ice and debris that come this late in the year.

As a result of the consultation and approval process, and deteriorating river/weather conditions we will obviously not be able to install the fishway by the end of 2008. However, as we recently discussed with the agencies and Penobscot Nation (PN), considering all downstream migration has ceased by this time of year, fortunately the operation and maintenance plan does not require that the facility operate after the end of the year in any event.

With all of that in mind, upon receipt of all pending approvals we plan to fabricate the various components (particularly the extension piece connecting the sluice opening to the area immediately adjacent to the trashracks) over the winter and install them as soon as possible this coming spring. In fact, since river flows typically recede enough to start on the downstream portion first, we hope to be able to install the sluice connecting the dam and the plunge pool, then move on to the installation of the extension. Ideally, conditions will allow installation of the sluice by April, but based on typical river flows in the Spring, it is more likely that all components of the facility will be installed in May-June.

In the interim, we do expect to install the other downstream fish passage measure this year. The one-inch clear space replacement trashracks have been fabricated and are now on-site. They will be installed this year and will therefore be "operational" once the plant is back on-line. In addition, the early spring high river flows result in most of the water spilling over the dam which provides passage during the smolt migration. As soon as river flow recedes we will be able to safely install the remaining downstream passage measures described above. Again, during the short period of time between when we are able to raise the flashboards, and then install the flume and extension (couple of weeks), we also plan to leave two hinged steel doors adjacent to the non-overflow intake structure in the down position to provide an avenue for any migrants to bypass the area. So, during installation, any fish will still have an opportunity to bypass the intakes, and will also have the physical deterrent of the new trashracks.

Consultation

As described above, PPL Maine has consulted with the fisheries agencies and PN regarding this request for an extension of time. All parties have confirmed their understanding of the circumstances and their agreement with our plans. For the

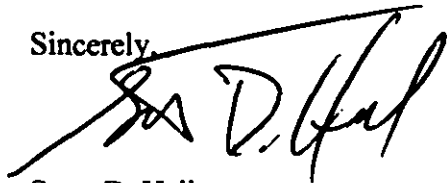
Commission's information we have attached copies of the respective emails confirming their consent.

Request for Extension of Time

Therefore, PPL Maine hereby requests that the Commission grant an extension of time to comply with the requirement to install the downstream fish passage measures recently approved by the Commission pursuant to Article (E) of the Orono Hydroelectric Project license (FERC No. 2710). As described above, PPL Maine will construct and install the downstream fishway and sluice as soon as river conditions permit in 2009 (ideally by April, but likely by May-June) with the downstream portion first and the upstream extension to follow.

Please contact me at (207) 827-5364 or shall@pplweb.com with any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Scott D. Hall", written over a horizontal line.

Scott D. Hall
Manager Environmental Services

Attachment

Xc: F. Seavey, USFWS
S. McDermott, NOAA Fisheries
J. Banks, PIN
N. Dube, MDMR
G. Wippelhauser, MDMR
R. Dill, MDIFW
D. Murch, MDEP

ATTACHMENT

Hall, Scott D

From: Hall, Scott D
Sent: Tuesday, November 25, 2008 10:47 AM
To: 'Sean McDermott'; 'Dube, Norm'; 'Wippelhauser, Gail'; 'John Banks'; 'Fred_Seavey@fws.gov'; 'Dill, Richard'
Cc: Timpano, Steve'; 'Murch, Dana P'
Subject: Orono Downstream Fish Passage Update

Good morning,

Now that I have been able to talk with each of you, I wanted to follow-up with the brief summary of the status of downstream passage at the Orono Hydroelectric Project.

As we have discussed in the past, by order dated 8 December 2005 (113 FERC 62,181), the Federal Energy Regulatory Commission (Commission or FERC) issued a new license for the Orono Hydroelectric project (FERC No. 2710). As described in Article E, the new license is subject to the fish passage prescriptions submitted by the U.S. Department of Interior (DOI) and the U.S. Department of Commerce (DOC) under Section 18 of the Federal Power Act for the Orono Project. The water quality certification issued by the Maine Department of Environmental Protection (MDEP) also contains a similar requirement for downstream fish passage (Condition 2.C.)

The new license calls for PPL Maine to design and install a downstream fish passage facility by the end of 2008. The license also calls for design drawings and an O&M plan to be prepared in consultation with state and federal resource agencies, and the Penobscot Indian Nation. The fish passage requirements also include the installation of trashracks with 1-inch clear opening at the turbine intakes.

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Based on my recent conversations with each of you it is my understanding that everyone is comfortable with our planned approach as described above. Therefore, please respond via email as soon as possible (ideally by the end of next week) with your concurrence. Upon receipt of your confirmation we will forward copies of the emails to FERC, along with a

formal request for an extension of time to complete installation of the remaining downstream passage measures at the Orono Project.

Please contact me (shall@pplweb.com or 827-5364) with any questions. Thanks again.

Scott

Scott D. Hall
Manager Environmental Services
PPL Maine, LLC
P.O. Box 276, Davenport Street
Milford, ME 04461
(207) 827-5364 (office)
(207) 827-4102 (fax)
(207) 461-3617 (cell)

Orono Downstream Fish Passage Update

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Hall, Scott D

From: John Banks [John.Banks@penobscotnation.org]
Sent: Tuesday, November 25, 2008 10:59 AM
To: Hall, Scott D
Cc: Kirk Francis
Subject: RE: Orono Downstream Fish Passage Update

Dear Scott,

Thank you for briefing me on PPL's plans to install downstream fish passage at the Orono Project.

The Penobscot Nation hereby concurs with your amended plan for installation of downstream fish passage facilities at the Orono project.

Sincerely,

John S. Banks
Director of Natural Resources
Penobscot Nation
12 Wabanaki Way
Indian Island, ME 04468
(207) 817-7330
(207) 358-5022 (cell)
(207) 817-7486 (fax)

From: Hall, Scott D [mailto:shall@pplweb.com]
Sent: Tuesday, November 25, 2008 10:47 AM
To: Sean McDermott; Dube, Norm; Wippelhauser, Gail; John Banks; Fred_Seavey@fws.gov; Dill, Richard
Cc: Timpano, Steve; Murch, Dana P
Subject: Orono Downstream Fish Passage Update

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Orono Downstream Fish Passage Update

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Based on my recent conversations with each of you it is my understanding that everyone is comfortable with our planned approach as described above. Therefore, please respond via email as soon as possible (ideally by the end of next week) with your concurrence. Upon receipt of your confirmation we will forward copies of the emails to FERC, along with a formal request for an extension of time to complete installation of the remaining downstream passage measures at the Orono Project.

Please contact me (shall@pplweb.com or 827-5364) with any questions. Thanks again.

Scott

Scott D. Hall
Manager Environmental Services
PPL Maine, LLC
P.O. Box 276, Davenport Street
Milford, ME 04461
(207) 827-5364 (office)
(207) 827-4102 (fax)
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Orono Downstream Fish Passage Update

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Hall, Scott D

From: Murch, Dana P [Dana.P.Murch@maine.gov]
Sent: Tuesday, November 25, 2008 1:01 PM
To: Hall, Scott D; Sean McDermott; Dube, Norm; Wippelhauser, Gail; John Banks; Fred_Seavey@fws.gov; Dill, Richard
Cc: Timpano, Steve
Subject: RE: Orono Downstream Fish Passage Update

Scott, DEP concurs with PPL Maine's approach to providing downstream fish passage at the Orono Project, as discussed below.

Dana Murch
 Maine DEP

From: Hall, Scott D [mailto:shall@pplweb.com]
Sent: Tuesday, November 25, 2008 10:47 AM
To: Sean McDermott; Dube, Norm; Wippelhauser, Gail; John Banks; Fred_Seavey@fws.gov; Dill, Richard
Cc: Timpano, Steve; Murch, Dana P
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Orono Downstream Fish Passage Update

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Please contact me (shall@ppiweb.com or 827-5364) with any questions. Thanks again.

Scott

Scott D. Hall
Manager Environmental Services
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Orono Downstream Fish Passage Update

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Hall, Scott D.

From: Wippelhauser, Gail [Gail.Wippelhauser@maine.gov]
Sent: Wednesday, November 26, 2008 2:46 PM
To: Hall, Scott D; Sean McDermott; Dube, Norm; John Banks; Fred_Seavey@fws.gov; Dill, Richard
Cc: Timpano, Steve; Murch, Dana P
Subject: RE: Orono Downstream Fish Passage Update

Scott:

DMR concurs with your planned approach for downstream fish passage at the Orono Project as described in the email below.
 Happy Thanksgiving!

Gail Wippelhauser
 Marine Resources Scientist
 Maine Department of Marine Resources
 #172 State House Station
 Augusta, ME 04333

Phone: 207-624-6349 Fax: 207-624-6501
 email: gail.wippelhauser@maine.gov

From: Hall, Scott D [mailto:shall@pplweb.com]
Sent: Tuesday, November 25, 2008 10:47 AM
To: Sean McDermott; Dube, Norm; Wippelhauser, Gail; John Banks; Fred_Seavey@fws.gov; Dill, Richard
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Orono Downstream Fish Passage Update

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Hall, Scott D.

From: Dill, Richard [Richard.Dill@maine.gov]
Sent: Monday, December 01, 2008 10:19 AM
To: Hall, Scott D
Subject: RE: Orono Downstream Fish Passage Update

Scott,

As we discussed via a phone conversation... MIFW has no concerns with PPL's request for a time extension to complete the Orono downstream fish passage.

Regards,
 Richard Dill
 Regional Fisheries Biologist
 Maine Inland Fisheries and Wildlife

From: Hall, Scott D [mailto:shall@pplweb.com]
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To: Sean McDermott; Dube, Norm; Wippelhauser, Gail; John Banks; Fred_Seavey@fws.gov; Dill, Richard
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Accordingly, back in June 2008 we forwarded the draft design plans with the expectation that we could finalize the design, obtain FERC/MDEP approval, and install the measures by late summer/early fall before river and weather conditions deteriorated. After considerable consultation we were able to finalize the modified design and subsequently file the final version with FERC and the MDEP in late September. We received the initial FERC approval (additional approval of construction details still needs to be obtained from FERC's New York Regional Office) this month with the MDEP approval request still pending. At this point, compounding the challenge of fabricating and installing the fishway in early winter was the significant rain events in early November which resulted in our current high river flows (with more rain forecast this week). In order to complete installation we will need to have divers in the river and employ a very large crane to lift the components over the penstock. Obviously, with high river flows we can not subject divers and our crew to the safety hazards of ice and debris that come this late in the year.

As a result of the consultation and approval process, and deteriorating river/weather conditions we will obviously not be able to install the fishway by the end of 2008. However, as we have all discussed, considering all downstream migration has ceased by this time of year, fortunately the operation and maintenance plan does not require that the facility operate after the end of the year in any event.

With all of that in mind, upon receipt of all pending approvals we plan to fabricate the various components (particularly the extension piece connecting the sluice opening to the area immediately adjacent to the trashracks) over the winter and install them as soon as possible this coming spring. In fact, since river flows should recede enough to start on the downstream portion first,

12/4/2008

Orono Downstream Fish Passage Update

Page 2 of 2

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In the interim, we do plan to install the other downstream fish passage measure this year. The one-inch clear space replacement trashracks have been fabricated and are now on-site. They will be installed this year and will therefore be "operational" once the plant is back on-line. In addition, the early spring high river flows result in most of the water spilling over the dam which provides passage during the smolt migration. As soon as river flow recedes we will be able to safely install the remaining downstream passage measures described above. Again, during the short period of time between when we are able to raise the flashboards, and then install the flume and extension (couple of weeks), we also plan to leave a couple of hinged steel doors adjacent to the non-overflow intake structure in the down position to provide an avenue for any migrants to bypass the area. So, during installation, any fish will still have an opportunity to bypass the intakes, and will also have the physical deterrent of the new trashracks for this brief period of time.

Based on my recent conversations with each of you it is my understanding that everyone is comfortable with our planned approach as described above. Therefore, please respond via email as soon as possible (ideally by the end of next week) with your concurrence. Upon receipt of your confirmation we will forward copies of the emails to FERC, along with a formal request for an extension of time to complete installation of the remaining downstream passage measures at the Orono Project.

Please contact me (shall@pplweb.com or 827-5364) with any questions. Thanks again.

Scott

Scott D. Hall
Manager Environmental Services
PPL Maine, LLC
P.O. Box 276, Davenport Street
Milford, ME 04461
(207) 827-5364 (office)
(207) 827-4102 (fax)
(207) 461-3617 (cell)

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12/4/2008

Orono Downstream Fish Passage Update

Page 1 of 3

Hall, Scott D

From: Sean McDermott [Sean.McDermott@Noaa.Gov]
Sent: Monday, December 01, 2008 11:28 AM
To: Hall, Scott D
Cc: Wippelhauser, Gail; Dube, Norm; John Banks; Fred_Seavey@fws.gov; Dill, Richard; Timpano, Steve; Murch, Dana P
Subject: Re: Orono Downstream Fish Passage Update

NMFS concurs as well.

-Sean

Wippelhauser, Gail wrote:

Scott:

DMR concurs with your planned approach for downstream fish passage at the Orono Project as described in the email below. Happy Thanksgiving!

Gail Wippelhauser
 Marine Resources Scientist
 Maine Department of Marine Resources
 #172 State House Station
 Augusta, ME 04333

Phone: 207-624-6349 Fax: 207-624-6501
 email: gail.wippelhauser@maine.gov

From: Hall, Scott D [<mailto:shall@pplweb.com>]
Sent: Tuesday, November 25, 2008 10:47 AM
To: Sean McDermott; Dube, Norm; Wippelhauser, Gail; John Banks; Fred_Seavey@fws.gov; Dill, Richard
Cc: Timpano, Steve; Murch, Dana P
Subject: Orono Downstream Fish Passage Update

Good morning,

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12/4/2008

Orono Downstream Fish Passage Update

Page 2 of 3

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Please contact me (shall@pplweb.com or 827-5364) with any questions. Thanks again.

Scott

Scott D. Hall
Manager Environmental Services
PPL Maine, LLC
P.O. Box 276, Davenport Street
Milford, ME 04461
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12/4/2008

Orono Downstream Fish Passage Update

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Sean McDermott
Fisheries Biologist
National Marine Fisheries Service
55 Great Republic Drive
Gloucester, MA 01930
978-281-9113 Fax 978-281-9301

Orono Downstream Fish Passage Update

Page 1 of 2

Hall, Scott D

From: Dube, Norm [Norm.Dube@maine.gov]
Sent: Monday, December 01, 2008 1:24 PM
To: Hall, Scott D
Subject: RE: Orono Downstream Fish Passage Update

Scott,

As indicated by Gail, we concur with the approach as described below.

Norm

><(((° ><(((° ><(((° ><(((° ><(((°

Norman R. Dubé
 Fisheries Scientist
 Maine Dept. of Marine Resources
 Bureau of Sea Run Fisheries and Habitat
 650 State St., Bangor, ME 04401

Tel: (207) 941-4453
 Mobile: (207) 557-9194
 Fax: (207) 941-4443

visit our website at:

<http://www.maine.gov/dmr/searunfish/index.shtml>

From: Hall, Scott D [mailto:shall@ppiweb.com]
Sent: Tuesday, November 25, 2008 10:47 AM
To: Sean McDermott; Dube, Norm; Wippelhauser, Gail; John Banks; Fred_Seavey@fws.gov; Dill, Richard
Cc: Timpano, Steve; Murch, Dana P
Subject: Orono Downstream Fish Passage Update

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Orono Downstream Fish Passage Update

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Please contact me (shall@pplweb.com or 827-5364) with any questions. Thanks again.

Scott

Scott D. Hall
Manager Environmental Services
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Milford, ME 04461
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12/4/2008



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Maine Field Office – Ecological Services
1168 Main Street
Old Town, ME 04468
(207) 827-5938 Fax: (207) 827-6099



In Reply Refer To:
FWS/Region5/ES/MEFO

December 4, 2008

Scot D. Hall
Manager of Environmental Services
PPL Maine, LLC
P.O. Box 276
Milford, Maine 04461

SUBMITTED ELECTRONICALLY

RE: Orono Project (FERC No. 2710)
Schedule for Implementing the Downstream Fishway Design

Dear Mr. Hall:

The U.S. Fish and Wildlife Service (Service) has reviewed your November 25, 2008 update on the schedule for installing the downstream fishway facility at the Orono Project (FERC No. 2710). The facility has four basic components: 1) a 1-inch clear spacing trashrack on the intake; 2) a fishway entrance that conveys bypass flow from the intake to the bypass gate; 3) a flume that conveys water from the bypass gate to a plunge pool; and 4) a 70 cfs bypass flow. We understand that the facility cannot be fully installed by the time the plant is re-started because of safety and logistical concerns, especially when installing the fishway entrance. You have committed to installing the facility as soon as possible after the flashboards are installed at the site, to installing the 1-inch trashrack prior to re-starting the plant, and to bypassing additional water after the flashboards are in place but before the facility is fully operational.

We appreciate your willingness to expedite the installation as soon as possible in the spring and to provide interim measures to reduce the entrainment of fish. The date of flashboard installation can vary widely in Maine depending on flow conditions, ranging from mid-April to early June. However, the start of the downstream migration period for Atlantic salmon is early April, which creates a situation where the plant could be operating without a fully functioning downstream fishway well into the smolt migration period.



Scott D. Hall

2

As we discussed, it is your intent to complete the installation of the flume prior to April 1 if it can be done safely. We urge you to make this a high priority since it would allow the facility to bypass the prescribed flow at a location that is relatively close to the intake. A functioning flume will help to further minimize smolt entrainment until the facility can be completed later in the spring.

Thank you for the opportunity to comment on the revised schedule. If you have any questions regarding these comments, please contact me at (207) 827-5938 extension 16 or at the above address.

Sincerely,

/s/ Frederic G. Seavey

Frederic G. Seavey
Fish and Wildlife Biologist

cc: A. Tittler, DOI/SOL
B. Rizzo, RO/EN
S. McDermott and J. Murphy, NOAA-Fisheries
D. Murch, MDEP
G. Wipfelhauser, MDMR
S. Timpano, MDIFW
Reading File

ES: FSeavey:12/04/08:(207) 827-5938

From: Scott Hall
To: ["gail.wippelhauser@maine.gov"](mailto:gail.wippelhauser@maine.gov); ["Dube, Norm"](#); ["Kramer, Gordon"](#); ["John Banks"](#); ["Sean McDermott"](#); ["Jeff.Murphy@noaa.Gov"](#); ["Fred_Seavey@fws.gov"](#); ["fred.seavey@gmail.com"](#)
Cc: ["Steve Shepard"](#); ["Murch, Dana P"](#)
Subject: Orono Project - Downstream Fish Passage Evaluation for ATS Smolts (draft report)
Date: Tuesday, November 23, 2010 3:54:00 PM
Attachments: [Orono_down_rep_Nov2010.pdf](#)

Good Afternoon,

Pursuant to the previously approved "Downstream Fish Passage Study Plan" for the Orono Hydroelectric Project bypass fishway, we have attached the draft "Downstream Fish Passage Evaluation for Atlantic Salmon Smolts", draft prepared - November, 2010, for your review and comment.

As you will remember, this evaluation was performed during 2010 to assess the existing downstream bypass facility at the Orono Project. While we expect the configuration of passage facilities to change in the future at Orono as a result of the applications for energy enhancements related to the Penobscot River Restoration Agreement, we do expect to continue to refine methods, etc. for evaluations and therefore repeat the study efforts again in 2011. As a result, we also plan to prepare a similar report for the 2011 evaluation which will also include the 2010 results.

In conformance with the requirements in the study plan please reply to this email with any comments within 30 days (December December 23, 2010), at which time we will finalize the report and file with FERC and the Maine DEP by December 31, 2010.

In the meantime, please call with any questions. Thanks again for your time and assistance.

And, enjoy the Thanksgiving holiday with your families.

Scott

Scott D. Hall

Vice President - Environmental & Business Services

Black Bear Hydro Partners, LLC

Davenport Street, PO Box 276

Milford, ME 04461

207-827-5364 - p

207-461-3617 - m

207-827-4102 – f

APPENDIX C

KEY EMAIL COMMUNICATIONS

Patricia B. McIlvaine

From: Jeff Murphy [Jeff.Murphy@noaa.gov]
Sent: Tuesday, January 04, 2011 5:18 PM
To: Patricia B. McIlvaine
Subject: Re: Species Protection Plans for Orono and Stillwater Project

Hello Pat - I expect a new recovery plan for Atlantic salmon to be issued this spring. As the new plan has yet to be issued, I cannot confirm whether the Orono and Stillwater Species Protection Plans will be consistent with the recovery plan. Also, I have not yet received a complete draft of the Species Protection Plan. Thanks, Jeff.

> Mr. Murphy

>

> As I need to be very careful in not making any assumptions when conducting
> my assessments of projects seeking LIHI certification, I would like to
> confirm the following with you:

>

> a) Is the November 2005 Final Recovery Plan for the Gulf of Maine DPS
> Atlantic Salmon the most current version?

>

> b) Will the Species Protection Plan being developed for the Orono and
> Stillwater Projects be in compliance with the current Recovery Plan for
> the Gulf of Maine DPS Atlantic Salmon?

>

> Thanks for your continued support.

>

> Pat McIlvaine

>

>

>

Pat McIlvaine | Project Manager

>

> Wright-Pierce | Water, Wastewater & Infrastructure Engineers
> www.wright-pierce.com

>

> 99 Main Street | Topsham, ME 04086

> Tel 207.725.8721 x.3785 | Fax 207.729.8414

>

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Jeff Murphy
NOAA's National Marine Fisheries Service
17 Godfrey Drive - Suite One
Orono, Maine 04967
Tel: 207-866-7379
Fax: 207-866-7342
Email: Jeff.Murphy@noaa.gov

Patricia B. McIlvaine

From: Jeff Murphy [jeff.murphy@noaa.gov]
Sent: Tuesday, December 14, 2010 1:04 PM
To: Patricia B. McIlvaine
Cc: 'fred_seavey@fws.gov'
Subject: Re: Question son Orono and Stillwater Hydro projects
Attachments: Orono.doc; Stillwater.doc

Hello Pat - Please see my responses below. Thanks, Jeff.

On 12/9/2010 3:31 PM, Patricia B. McIlvaine wrote:

Gentleman

As I have mentioned to both of you in my brief telephone conversations with you, I am the independent reviewer for the Low Impact Hydropower Institute (LIHI) for the three hydropower projects on the Penobscot River for which Black Bear Hydro LLC (BBHP) is seeking LIHI certification as a "low impact" facility. The three Projects are Stillwater, Orono and Medway. All three are incorporated into the Lower Penobscot Multiparty Settlement Agreement dated June 2004. While I may have some additional questions as my review progresses, the following are my current questions, primarily related to Orono and Stillwater. To facilitate your response, I have attached the current licenses for both Orono and Stillwater.

1) Please confirm whether or not your agency has officially issued a FPA Section 18 Mandatory Fish Prescription for the Orono Project. The FERC license for Orono dated 12/08/05 states in Paragraph (E), that the license is subject to the prescriptions submitted by both USDI and USDC under FPA Section 18 as defined in Appendices B and C respectively. However Article 402 also also states that this FPA Section 18 prescription authority is "reserved" for both USDI and USDC. As it does not seem typical to both include a mandatory prescription for fishways and reserve the authority to do so, I wanted to obtain your opinion/thoughts as to why both instruments have been included.

Yes, NMFS filed a Section 18 fishway prescription at Orono. See attached for explanation of reservation language.

2) I have the same question on Stillwater...basically please confirm whether or not your agency has officially issued a FPA Section 18 Mandatory Fish Prescription for this Project. The FERC License amendment dated 04/18/05 discussion includes reference to fishway prescriptions from both USDI and USDC, and FERC includes fish way "requirements" in Articles 405, 406 and 408, but Article 409 specifically reserves prescription authority for USDI. Again, I wanted to obtain your opinion/thoughts on the official position on whether or not a Section 18 prescription has been issued.

Yes, NMFS filed a Section 18 fishway prescription at Stillwater. See attached letter for explanation of reservation language.

3) I understand that BBHP is working with both agencies on a species protection plan for the Atlantic Salmon and shortnose sturgeon, that addresses both Projects, and that a draft of the plan is expected to be issued to you for review and comment this month. Is there a target date or official deadline by which this plan is expected to, or must be, finalized and approved? To date, has there been cooperation on the part of BBHP in this activity?

BBHP is working on developing a species protection plan for Atlantic salmon and shortnose sturgeon.

12/14/2010

BBHP filed a preliminary draft of the species protection plan last month. Its my understanding that BBHP plans to have a draft of the plan this month.

4) Have either of you had an opportunity to review the draft report submitted by BBHP on their 2010 Downstream Fish Passage effectiveness testing for smolt? If so, can you share with me your thoughts on the findings?

I have quickly reviewed the report. NMFS will file formal comments next month.

5) This question is specific to Fred: You provided a series of recommendations on the Study Plan to test the efficiency of the downstream fish passage facility in a letter dated July 8, 2009. (see attached) It does not appear that all of your recommendations were adopted in the final study plan. Does the final plan that was used cause you any concern about the validity of the study that was performed?

If it is easier for you to respond by telephone my direct line is 207-798-3785. .

Thank you for your time.

Pat McIlvaine

Pat McIlvaine | Project Manager

Wright-Pierce | Water, Wastewater & Infrastructure Engineers
www.wright-pierce.com

99 Main Street | Topsham, ME 04086
Tel 207.725.8721 x.3785 | Fax 207.729.8414

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J

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Jeff Murphy
NOAA's National Marine Fisheries Service
Protected Resources Division
Maine Field Station
17 Godfrey Drive - Suite 1
Orono, Maine 04473
Ph: 207-866-7379
Fax: 207-866-7342
Email: Jeff.Murphy@noaa.gov



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
One Blackburn Drive
Gloucester, MA 01930-2298

September 15, 2005

Magalie R. Salas, Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, D.C. 20426

Re: August 19, 2005 Environmental Assessment for the Orono Project No. 2710

Dear Ms. Salas:

The National Marine Fisheries Service (NOAA Fisheries) is writing to comment on the August 19, 2005 Environmental Assessment (EA) for the Orono Project (No. 2710) issued by the Federal Energy Regulatory Commission (FERC). A draft EA was not issued by FERC in this proceeding; therefore, this is the first opportunity for NOAA Fisheries to comment on FERC staff recommendations contained in the EA.

1.0 Department of Commerce Preliminary Fishway Prescription

On April 20, 2005, the Department of Commerce, through NOAA Fisheries, filed its preliminary fishway prescription with the FERC pursuant to Section 18 of the Federal Power Act for the Orono Project (P-2710) on the Penobscot River, Maine. The preliminary prescriptions were consistent with the actions of the Lower Penobscot River Basin Multiparty Settlement Agreement (MPA) submitted to the Commission on June 25, 2004 and NOAA Fisheries' 1995 prescription.

Consistent with the Mandatory Conditions Review Process (MCRP), NOAA Fisheries has solicited comments on our preliminary fishway prescription. No comments were received.

Also under the MCRP, NOAA Fisheries initiated discussions with the Department of the Interior (DOI) and the applicant, PPL Maine, LLC (PPL Maine) to ensure consistency between the agencies' preliminary prescriptions. NOAA Fisheries' preliminary prescription as filed on April 20, 2005 was fundamentally identical to that filed by DOI. However, NOAA Fisheries provided details in the prescription outlining fish passage provisions from Attachment A of the MPA. Both agencies included similar language for reservation of authority pursuant to Section 18 of the Federal Power Act in their respective fishway prescriptions.



Language provided by NOAA Fisheries stated that:

“The Department hereby reserves its authority under §18 of the FPA to prescribe such fishways as may be necessary and consistent with Attachment A of the Lower Penobscot River Multiparty Settlement Agreement during the term of the license. This specifically includes authority to prescribe a fish trap, as specified in Attachment A to the Agreement, upon acquisition of the Veazie, Great Works, and Howland Projects.”

The DOI indicated their reservation of authority to be “...not inconsistent with the Agreement...” The distinction between the Lower Penobscot River Multiparty Settlement Agreement and Attachment A of the Penobscot River Multiparty Settlement Agreement is important to NOAA Fisheries’ interests. Attachment A of the MPA specifically outlines fish passage measures whereas the MPA itself outlines a broader scope of actions. We have routinely and consistently explained this distinction to FERC, PPL Maine, and the other partners involved in the Agreement. As a result of these discussions, no party has voiced objection. More importantly, the reservation of authority language proposed by NOAA Fisheries satisfies the objectives of all involved and does not interfere with the MPA. NOAA Fisheries notified FERC of this resolution in both its preliminary prescription dated November 29, 2004, and final prescription dated March 21, 2005 for Veazie (P-2403), Stillwater (P-2712), and Milford (P-2534). In its errata notice dated May 16, 2005, the FERC modified the reservation authority to maintain this distinction. The FERC Environmental Assessment for the Orono Project references the Settlement Agreement (see Section IV(D)2 *Section 18 Fishway Prescription*, page 13) and does not specifically identify Attachment A. NOAA Fisheries again maintains that its reservation of authority be limited only to Attachment A of the MPA.

In comment to FERC’s staff recommendations within the EA, NOAA Fisheries disagrees with the recommendation to exclude from the Orono license an article requiring upstream anadromous fish passage measures as outlined in our preliminary prescription and consistent with Attachment A of the MPA. Inclusion of a license article requiring the licensee to install the specified fish passage (contingent on other actions of the agreement) is important to NOAA Fisheries to ensure fish passage needs are met by the licensee. In our preliminary prescription, the exact nature and design of fish passage is dependent on whether or not the option to purchase and remove designated dams is exercised as outlined under the MPA. As you know, the actions at one facility (e.g., Orono) are inextricably linked to recent, past, and future actions at other Penobscot River hydro electric facilities (e.g., Veazie, Great Works, etc.). The EA for Orono acknowledges many past actions and is willing to anticipate future actions in reaching many of its conclusions. For example, the EA concludes on page 36 that the long-term effects of impingement and entrainment is expected to be minor “...given the largely beneficial effects of the Settlement on the restoration goals of the basin.” Given that FERC staff was willing to consider future actions holistically in other sections of the document, and given that contingent alternatives for dam removal are both known and

easily analyzed, FERC's staff recommendation is, at a minimum, internally inconsistent within the EA itself.

The FERC staff recommendation to not include upstream fish passage in a license article, based on future actions, is also inconsistent with past orders in the Penobscot River. This same contingency was recently accepted by FERC in adopting amended license articles with equally contingent upstream fish passage measures in Settlement-related actions for the Milford Project, Project No. 2534 (*see* Article 408), and the Veazie Project, Project No. 2403 (*see* Article 408). In each case, FERC agreed to include these revised fishway articles exactly as requested notwithstanding the fact that for both projects DOC and DOI reserved authority to prescribe fishways. Upstream anadromous fish passage, contingent on future actions, should be included as a license article, consistent with previous FERC findings. In addition to those articles recommended by FERC staff in the EA, FERC should include an article in the Orono license requiring upstream fish passage for anadromous species as outlined in our preliminary prescription.

The preliminary fishway prescription provided on April 20, 2005 is substantively similar to the preliminary fishway prescription originally provided by NOAA Fisheries in 1995. Differences between the two relate directly to continued efforts of DOI and the U.S. Fish and Wildlife Service (USFWS) in negotiating the MPA with PPL Maine and parties to the MPA. NOAA Fisheries relies on an extensive administrative record developed by DOI, hereby incorporated by reference, to fully support the prescribed fish passage measures under the Federal Power Act.

The Department of Commerce, through NOAA Fisheries, hereby modifies its preliminary prescription submitted on April 20, 2005 in a manner that maintains consistency with fish passage requirements outlined in Attachment A of the MPA. We reaffirm the preliminary prescription as our modified prescription without change.

2.0 Endangered Species Act

Section 7(a)(2) of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531-1543), requires each federal agency, in consultation with the Secretaries of the Interior and Commerce, to insure that any action authorized, funded, or carried out by such agency is not likely to jeopardize the continued existence of endangered or threatened species or result in the destruction or adverse modification of the critical habitat of such species. FERC issuance of a new license to the Orono Project is considered a federal action under Section 7 of the ESA.

The Gulf of Maine Distinct Population Segment (DPS) of Atlantic salmon (*Salmo salar*) was jointly listed as endangered under the ESA by NOAA Fisheries and the USFWS in November 2000. The Atlantic salmon DPS encompasses all naturally reproducing remnant populations of Atlantic salmon from the Kennebec River downstream of the former Edwards Dam site, northward to the mouth of the St. Croix River. The DPS includes populations of Atlantic salmon in the Dennys, East Machias, Machias, Pleasant, Narraguagus, Ducktrap, Sheepscot Rivers, and Cove Brook. Cove Brook is a tributary to the lower Penobscot River. The best available information indicates that listed Cove

Brook Atlantic salmon occur in the Penobscot River downstream of the former site of the Bangor Dam.

The shortnose sturgeon (*Acipenser brevirostrum*) is also a federally listed endangered species of interest in this licensing. According to the 1998 Recovery Plan for shortnose sturgeon, a population of this federally endangered fish is recognized to exist in the Penobscot River (NMFS 1998). On June 30, 1978, one shortnose sturgeon was captured at Northport, Maine in Penobscot Bay. This capture indicates that a contemporary shortnose sturgeon population likely exists in the Penobscot River, as this capture occurred within the life span of a shortnose sturgeon. Additionally, archeological data suggesting that sturgeon from the Penobscot River were used by native peoples provide support for the conclusion that shortnose sturgeon historically occurred in this system. While recent (1994 and 1995) directed studies to document whether shortnose sturgeon are present in this river system have been unsuccessful, the habitat in the Penobscot River is consistent with the preferred habitat of shortnose sturgeon documented in other river systems. In addition, NOAA Fisheries fishery biologists observed sturgeon leaping out of the Penobscot River in the Brewer/Bangor area in the spring and summer of 2004. The size of the fish suggests that these were shortnose sturgeon. Based on the best available information, NOAA Fisheries holds the position that shortnose sturgeon are present in the river. The extent of this species' range in the Penobscot is likely from the lower estuary to the area downstream of the Veazie Dam.

Section 7 consultation under the ESA is only required when a federal action may affect threatened or endangered species or critical habitat. In the EA for the Orono Project, FERC made the preliminary determination that redeveloping and operating the Orono Project, as proposed by PPL Maine and in accordance with the Settlement, would not affect the Gulf of Maine DPS of Atlantic salmon or shortnose sturgeon. The Commission states that operation of the project in a run-of-river mode will not affect habitat conditions for either species in the lower Penobscot drainage below the Veazie dam. This finding is supported by the EA, and NOAA Fisheries has no additional information that supports a different conclusion. Therefore, Section 7 consultation for listed Atlantic salmon or shortnose sturgeon is not necessary for the issuance of a new license to the Orono Project.

3.0 Essential Fish Habitat

The Magnuson-Stevens Fishery Conservation and Management Act (MSA) requires federal agencies to consult with one another on projects such as this. Insofar as a project involves essential fish habitat (EFH), as this project does, this process is guided by the requirements of our EFH regulation at 50 CFR 600.905, which mandates the preparation of EFH assessments and generally outlines each agency's obligations in this consultation procedure.

As noted in the EA, the Penobscot River and its tributaries have been designated EFH for Atlantic salmon. PPL Maine analyzed the effects of relicensing and refurbishing the Orono project on essential fish habitat and filed that analysis with FERC (December 15, 2004). PPL Maine's analysis was prepared after discussions with NOAA Fisheries, US

Fish and Wildlife, and PIN. PPL Maine's analysis indicates that relicensing of the Orono Project and the requested modifications to the West Enfield, Stillwater, Medway, Milford, and Veazie Projects¹ are part of an overall Penobscot River restoration project that would ultimately result in cumulative improvements to designated EFH for Atlantic salmon, as well as improve access for Atlantic salmon to areas designated EFH not directly involved with these projects. PPL's conclusions were based on actions proposed under the MPA, including dam removal and, in particular, the contingent mitigation fund (CMF).

FERC staff adopted and concurred with PPL Maine's conclusion, but, unfortunately, did not discuss the specifics upon which PPL's conclusion was based. That is, FERC staff concluded in its determination of impacts on EFH that "...licensing the project, as proposed by PPL Maine, in accordance with the Settlement [MPA], would not adversely affect EFH." (page 18). Yet FERC staff specifically did not include the CMF provisions, even though the CMF is a component of the MPA and a critical underpinning of that ultimate conclusion. Further, FERC staff stated that no consultation is required with NOAA Fisheries.

NOAA Fisheries notes that FERC staff recommended to exclude from the Orono license an article requiring PPL Maine to contribute \$1,000 per annum, for the term of the project license, to the CMF. However, the CMF as established in the MPA will be used to help offset impacts associated with redevelopment of the Orono Project, in the event that the option to purchase and remove the designated dams is not exercised or is terminated. Without this fund in place and as a requirement of the project license, NOAA Fisheries can not agree with FERC's conclusions of no significant impact on EFH for Atlantic salmon, and reinitiation of consultation would be required, as this would constitute a change in the conditions and impacts upon which the EFH analysis was based.

The above referenced staff recommendation is also inconsistent with Settlement-related licensing actions recently approved by FERC on April 18, 2005 for the Medway Project, Project No. 2666 (*see* new Article 410), the Stillwater Project, Project No. 2712 (*see* new Article 414), and the West Enfield Project, Project No. 2600 (*see* new Article 47). In these licensing actions, the identical requirement for PPL Maine to fund the CMF in the specified amount was approved by FERC and incorporated as license articles. And in each order that modified and approved these license amendments and others, FERC wrote:

Granting these amendments is in the public interest because the amendments are components of a comprehensive settlement agreement which will contribute to the fishery restoration program in the Penobscot Basin and provide for the generation

¹ See Orders Modifying and Approving Amendment of License 111 FERC ¶62,061, 111 FERC ¶62,062, 111 FERC ¶62,063, 111 FERC ¶62,064, 111 FERC ¶62,065.

of significant amounts of electric power at the hydroelectric projects covered by the agreement.

The concerns regarding the CMF raised by staff in the Orono EA -- that the Settlement does not provide specificity on the use of these funds -- was not raised by FERC staff in the EA that was completed for these other projects. Although NOAA Fisheries did not specifically mention this fund in our previous comments or prescription, it was an integral mitigation measure to offset impacts associated with the Orono project in the event that upstream fish passage is not installed. To ensure project related impacts are minimized and/or offset to the greatest extent practicable, and in support of the overall goals of the Lower Penobscot River Basin Multiparty Settlement Agreement, NOAA Fisheries recommends pursuant to Section 305(b)(4)(A) of the MSA that FERC reconsider the staff recommendation and include the CMF in a license article for the Orono Project.

Please note that Section 305(b)(4)(B) of the MSA requires FERC to provide NOAA Fisheries with a detailed written response to these EFH Conservation Recommendations, including a description of measures adopted by FERC for avoiding, mitigating, or offsetting the impact of the project on EFH. In the case of a response that is inconsistent with NOAA Fisheries' recommendations, Section 305(b)(4)(B) of the MSA also indicates that FERC must explain its reasons for not following the recommendations. Included in such reasoning would be the scientific justification for any disagreements with NOAA Fisheries over the anticipated effects of the proposed action and the measures needed to avoid, minimize, mitigate, or offset such effects pursuant to 50 CFR 600.920(k).

Please also note that a distinct and further EFH consultation must be reinitiated pursuant to 50 CFR 600.920(l) if new information becomes available or the project is revised in such a manner that affects the basis for the above EFH Conservation Recommendations.

4.0 Motion to Intervene

NOAA Fisheries timely filed a motion to intervene pursuant to rule 214 on July 15, 2004 in response to FERC's *Notice of Application Tendered for Filing with the Commission, Soliciting Additional Study Requests, Waiving Three Stage Consultation, and Establishing an Expedited Schedule for Relicensing and Deadline for Submission of Final Amendments* of July 9, 2004 for the Orono project. No comments were received in opposition to this motion and, therefore, NOAA Fisheries should be recognized as an intervenor in this matter. The list of interveners in the EA (page 10) for the Orono project did not include NOAA Fisheries. NOAA Fisheries requests that this oversight be corrected by adding our agency to the list of interveners and the service list.

5.0 General Comments

In the EA for the Orono Project, FERC concludes that spillage flows will likely provide additional habitat for fish species in the bypassed reach of river below the Orono Dam. Based upon monthly flow duration curves, flows in the Stillwater Branch of the Penobscot River are expected to exceed the project's maximum hydraulic capacity

between 70 and 100 percent of the time during March through June. NOAA Fisheries agrees that under most circumstances, spillage flows at the Orono Dam would provide additional habitat for fish species in the bypass reach. However, FERC should acknowledge that high spillage flows could create unsuitable habitat conditions for fish present in the bypass reach through excessive current velocities. Eggs, larvae, and juvenile lifestages of fish are especially vulnerable to excessive velocities which can lead to injury and death.

The EA acknowledges that some number of migratory and resident fish species may be killed as a result of turbine entrainment at the Orono Project. The EA states that "This long-term effect is expected to be minor, given the largely beneficial effects of the Settlement on the restoration goals of the basin." NOAA Fisheries maintains that the long-term effect is expected to be minor, given expectations of high downstream fish passage effectiveness and the largely beneficial effects of the Settlement on the restoration of the basin.

If you have any questions concerning this filing, please contact Peter Colosi (978-281-9332) or Mary Colligan (978-281-9116).

Sincerely,

Patricia A. Kurkul
Regional Administrator

cc: Service List

Scott Hall

From: Jeff Murphy [Jeff.Murphy@noaa.gov]
Sent: Tuesday, May 25, 2010 8:37 AM
To: Scott Hall
Cc: Fred_Seavey@fws.gov; Steve Shepard; Gordon Russell
Subject: Re: Species Protection Plan Development - Black Bear Hydro Partners, LLC

Scott - I can confirm that BBHP has initiated the process to develop a Species Protection Plan for Atlantic salmon at the Orono, Stillwater, and Medway projects.

I'm presently available to meet on June 3, 4, 8, and 10. Thanks, Jeff.

On 5/24/2010 2:26 PM, Scott Hall wrote:

Fred and Jeff,

As we recently discussed, Black Bear Hydro Partners, LLC (BBHP) plans to submit applications to the Low Impact Hydro Institute for certification of the Orono, Stillwater and Medway hydroelectric projects. For purposes of documenting our recent and on-going work with you to develop a species protection plan (SPP) for BBHP's hydroelectric projects we would appreciate it if you could simply reply to this email confirming that we are in the process of working with you to develop the SPP.

On a related note, we would also like to check with you on your availability to meet again to discuss and finalize the outline for the SPP that we have been working on. So, please also let me know what you have for availability over the next couple of weeks to get together for an hour or two as necessary to complete this next step. Again, once we finalize the outline we will continue preparation of the initial draft SPP for discussion.

Thanks for providing the confirmation requested above. Talk to you soon.

Scott

Scott D. Hall

Manager of Environmental Services

Black Bear Hydro Partners, LLC

Davenport Street, PO Box 276