

*BACKGROUND INFORMATION IN SUPPORT OF BLACK BEAR
HYDRO PARTNERS, LLC'S APPLICATION FOR LIHI
CERTIFICATION OF ITS MILFORD HYDROELECTRIC
PROJECT
(MAY 2013)*

The Penobscot River Restoration Trust and its public and private partners are working to undo more than two centuries of damage that too many dams have inflicted upon the Penobscot River. Removing the lower two dams and bypassing a third opens up nearly 1000 miles of habitat for endangered Atlantic salmon, sturgeon, river herring and eight other species of sea-run fish in Maine. As fish passage is improved at four remaining dams and energy increased at others, these ecological benefits will be realized while maintaining or even increasing energy production. By reconnecting the river to the sea, the Penobscot Project promises large-scale ecological, cultural, recreational and economic benefits throughout New England's second largest watershed. (Penobscot River Restoration Trust, May 2013)

Black Bear Hydro Partners, LLC's (BBHP) Milford Hydroelectric Project is an integral component of the Penobscot River Restoration Agreement. The overall intent of the Agreement is to provide significant enhancements to the Penobscot River's environmental resources, and lowering and minimizing the influence of BBHP's hydroelectric projects on those resources while maintaining the levels of clean, renewable hydropower generation from the river.

In support of the application for certification as low impact hydropower facilities, BBHP is providing the following background information that was adapted from the Penobscot River Restoration Trust's website (May 2013).

The Penobscot River Restoration Project is one of the largest, most creative river restoration projects in our nation's history. In an unprecedented collaboration, hydropower companies Black Bear Hydro Partners, LLC and PPL Corporation, the Penobscot Indian Nation, seven conservation groups, and state and federal agencies, are working together to restore 11 species of sea-run fish to the Penobscot River, while maintaining energy production. Successful implementation of the project will revive not only native fisheries but social, cultural and economic traditions of New England's second largest river- the Penobscot.

The Penobscot River Restoration Trust is the non-profit organization charged with implementing the core aspects of the restoration effort, including purchase and removal of the two lowermost dams on the Penobscot River, Veazie and Great Works, and purchase and decommissioning of a third dam, Howland Dam, where a fish bypass will be constructed. Members of the Trust include the Penobscot Indian Nation, American Rivers, Atlantic Salmon Federation, Maine Audubon, Natural Resources Council of Maine, Trout Unlimited, and The Nature Conservancy. The tribe

and each conservation organization is represented on the board of directors, along with three additional board members.

Unprecedented Collaboration

Partners in the Penobscot River Restoration Project, including the Penobscot Indian Nation, American Rivers, Atlantic Salmon Federation, Maine Audubon, Natural Resources Council of Maine, and Trout Unlimited, working with the U.S. Department of Interior, the State of Maine, and the dam owners (Black Bear Hydro Partners, LLC and PPL Corporation), negotiated a final agreement that will redefine the Penobscot River over the coming years. The Nature Conservancy joined as a full partner in 2006.

The agreement, filed with the Federal Energy Regulatory Commission (FERC) in June of 2005 lays out a roadmap for restoring the river that will:

- Restore self sustaining populations of native sea-run fish, such as the endangered Atlantic salmon, through improved access to nearly 1,000 miles of historic habitat;
- Renew opportunities for the Penobscot Indian Nation to exercise sustenance fishing rights;
- Create new opportunities for tourism, business and communities;
- Resolve longstanding disputes and avoid future uncertainties over the regulation of the river.

This unprecedented and innovative agreement provides for:

- The Penobscot River Restoration Trust (PRRT) the option to purchase three dams from PPL Corporation, and subsequently remove the two lowermost dams on the river: Veazie and Great Works;
- The PRRT, after obtaining the approval of the U.S Fish and Wildlife Service, to decommission and pursue construction of a state-of-the-art fish bypass around the third dam, Howland, that will, if found feasible maintain the impoundment;
- Black Bear Hydro Partners, LLC has already increased generation at three existing dams, and has the opportunity to add generating capacity at five more existing dams which would result in maintaining essentially all of the current energy generation;
- Black Bear Hydro Partners, LLC continues to make improvements to fish passage measures at the remaining dams.

The final agreement was signed by PPL Corporation (and subsequently assigned in pertinent part to Black Bear Hydro Partners, LLC); the U.S. Department of Interior's Bureaus of Fish and Wildlife, and Indian Affairs, and the National Park Service; four State of Maine natural resource agencies – the State Planning Office, the Department of Natural Resources, the Department of

Inland Fisheries and Wildlife, and the Atlantic Salmon Commission; the Penobscot Indian Nation; American Rivers; Atlantic Salmon Federation; Maine Audubon; Natural Resources Council of Maine; Trout Unlimited; and the Penobscot River Restoration Trust – a Maine non-profit corporation established in May 2005 to implement the restoration project.

The Penobscot River Restoration Trust was established for the purpose of implementing the core aspects of the restoration effort, particularly the purchase and removal of the Veazie (underway and scheduled for completion in 2013) and Great Works (removal completed in 2012) Dams, and bypass or, if necessary, removal of the Howland Dam. The Trust's board of directors is comprised of members of the conservation groups and the Penobscot Indian Nation.

Public Input

Opportunities for public involvement will occur at many points in the project, not only as required by law and regulation but also through the efforts of various parties to work together with organizations, local businesses, citizens, governments and all interested people.

Since October of 2003, hundreds of people in the region have attended meetings to learn more, have their questions answered, and share their thoughts, concerns and enthusiasm for the Penobscot River Restoration Project. Thousands more have learned about the project through staff participation and our display table at events and festivals held within the project area and around the state.

The parties to the agreement kicked off community-wide discussions with two large public meetings, one near each end of the project area – in Orono in November 2003 and Howland in early December of 2003. Project representatives also have discussed the project at town council meetings including Bradley, Veazie, Howland, Eddington, and Brewer, and made presentations to and discussed the project with scores of other groups and individuals. Discussions have been very productive, yielding many ideas that will improve project implementation, by anticipating and addressing concerns as appropriate, and finding approaches that will maximize ecological, economic, cultural and other benefits of a restored river. The Penobscot River Restoration Trust will continue meeting with towns affected by these projects to identify, and address potential issues, and provide insight into the changes that can be expected on the river.

In December of 2007, the Penobscot River Restoration Trust held formal public scoping sessions as part of the permitting process required with project implementation. The public will have multiple opportunities to comment as we proceed with the federal and state regulatory process for the project.

Wide-Ranging Benefits

The Penobscot River is New England's second largest river draining 8,570 square miles, or about one-third of Maine. For thousands of years sea-run fish migrations defined this river, which once provided a seamless connection of life between the Gulf of Maine and terrestrial and aquatic ecosystems deep inland. The Penobscot River Restoration Project's reconfiguration of dams will have a wide range of benefits to fish and wildlife populations, water quality and communities along the river.

Fisheries:

Our rivers and streams once provided a seamless connection of life between the Gulf of Maine and terrestrial and aquatic ecosystems deep inland. For thousands of years fish freely traveled up and down the river. These tremendous migrations once defined the Penobscot.

- Historically, the Penobscot River held Maine's largest populations of Atlantic salmon and other sea-run fish, with annual salmon runs estimated at 50,000-70,000 adults prior to 1830.
- Today the Penobscot has limited native populations of Atlantic and shortnose sturgeon, Atlantic salmon, American shad, alewives, blueback herring, American eels, smelt, striped bass, tomcod, and sea lamprey.
- Now, populations of many of these fish are at or near all time lows due to migratory barriers, over-harvest, severe water pollution, and habitat degradation caused by log drives and dams.

While many of these problems have been addressed, multiple dams on the river continue to impede safe upstream and downstream passage for sea-run fish. The Penobscot River Restoration Project is the first project to provide an essential ingredient for the successful restoration of Atlantic salmon and the ten other species of native sea-run fish in the Penobscot – their ability to reach vast quantities of productive spawning and rearing habitat. Specifically:

- This project will reestablish the river's historic connection to the ocean, dramatically improving access to nearly 1,000 miles of river habitat.
- Several species including striped bass, both species of Sturgeon and rainbow smelt will regain their entire historical habitat.
- This project will improve access to hundreds of miles of river and dozens of lakes and ponds that historically provided habitat for shad, alewife, blueback herring and American eel.
- Federal biologists believe alewife runs could increase from a few thousand to several million, and American shad from near zero to 1.5 million annually.

Maine harbors the nation's last remaining truly wild Atlantic salmon. Scientists say this project is the single-most significant step to take to recover Maine's salmon population.

- The National Academy of Sciences report, Atlantic salmon in Maine, released in January of 2005 stated that the highest priority for restoring the endangered Atlantic salmon is dam removal. The report went on to say "the recent agreement to remove two Penobscot River dams is encouraging."
- Sixty to seventy percent of all United States Atlantic salmon spawn in the Penobscot, but only 3 percent of the river's historic spawning habitat lies below its lowermost dam – Veazie.
- This project will allow Atlantic salmon to regain half of their historical habitat in the river with just one dam passage, which has a new fish lift under construction.
- Federal biologists predict that, over time, yearly Atlantic salmon runs could increase from less than 1,000 today to the 10,000-12,000 range.

Ecosystem and Wildlife:

The Penobscot River Restoration Project goes far beyond restoring migratory fish. The benefits extend to the whole ecosystem and the Gulf of Maine. Removal of the Great Works and Veazie Dams will restore natural functions of the lower river. For example:

- Nutrients derived from sea-run fish will reach farther up river, and the natural flushing of sediments will reach Penobscot Bay, restoring a natural cycle to the river.
- The restoration of sea-run fish to the river will enhance the supply of food sources for a wide variety of fish and wildlife inhabiting the Gulf of Maine including: important commercial species such as cod, haddock, pollock, halibut, and tuna; important recreational species such as striped bass and bluefish; and species that are threatened or federally protected such as bald eagles, seals, and whales.
- Burgeoning fish populations will provide new feeding opportunities for aquatic birds and mammals such as kingfishers, river otters, osprey, and bald eagles. Waterfowl, such as the Barrows goldeneye, should find plenty of winter food in open waters. Sea-run fish are also less likely than resident fish to be contaminated.
- Newly created habitat will support aquatic insects, mussels, amphibians, and turtles.

Tribal Cultural and Tradition:

The Penobscot River Restoration Project will restore the Penobscot Indian Nation's ability to obtain sustenance and cultural identity from the river that bears their name.

- The river has been the homeland to the Penobscots for over 10,000 years.
- For over 100 years, the Penobscot Indian Nation has been deprived of the opportunity to exercise their tribal fishing rights because the river is virtually devoid of its native sea-run fisheries above Veazie Dam.

- The Penobscots have a traditional and sacred practice of sustenance fishing, but have harvested only two salmon since 1980 in deference to the fragility of salmon populations.
- This project will bring a free-flowing Penobscot River and its fisheries back to the Penobscot Indian reservation.

Community and Economic:

There have been tremendous improvements in the Penobscot River over the past 30 years largely due to the reduction of industrial pollution, resulting in greatly improved water quality. This partnership seeks to continue building on the significant improvement in water quality to enhance the overall health of the river. A once-again free-flowing Penobscot with rebounding fisheries will create new opportunities for communities along the river.

- Over time, a restored river could contribute to the revitalization of social, recreational, and business opportunities along the Penobscot benefiting local citizens, local businesses, guides, outfitters, and recreational and commercial fisherman.
- The Maine Department of Economic and Community Development (DECD) has been charged by Governor Baldacci to take an active role in the economic development portion of the project.
- An effort will be made to secure \$3-5 million to increase local economic development capabilities, build a regional economic development collaborative, and fund river-related economic development activities.
- Following the announcement of the project in October 2003, Senator Olympia Snowe (R-ME) secured \$30,000 from the Department of Commerce (DOC) for community asset information gathering in the affected communities.
- The Town of Veazie led a community initiative in which they received a \$10,000 Community Development Block Grant from the Department of Housing and Urban Development (HUD) for use in preliminary economic planning exercises.
- The Veazie Salmon Club-- the nation's first salmon club-- was once known for its tradition of sending the first salmon caught each year to the U.S. President. President George Bush in 1992 was the last President to participate in this tradition, which was suspended due to declining wild Atlantic salmon populations.
- Many new and improved recreational opportunities – including canoeing, kayaking, fishing, river festivals, and wildlife watching – could become possible on the Penobscot bringing an influx of recreational enthusiasts and their dollars.
- Shad festivals, for example, generate substantial revenue each spring in river communities along the Susquehanna River in Connecticut and the Hudson River in New York.

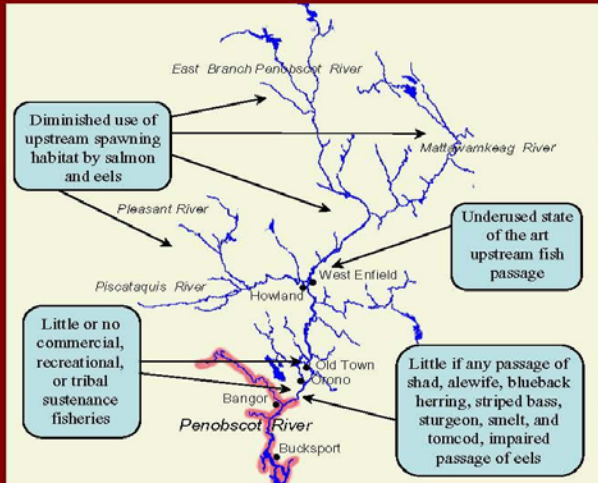
Power Generation:

Relicensing and pending appeals for various hydropower dams along the Penobscot have been lingering for decades, costing untold amounts of time, money, and environmental damage. The

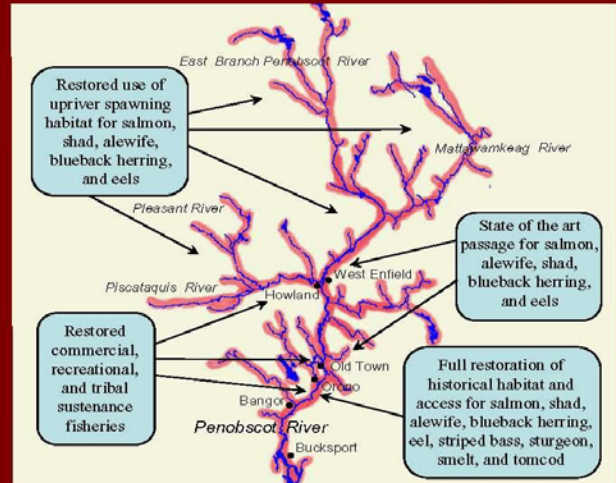
disputes are not purely environmental – they run to the very core of relationships among the various parties – jurisdictional disputes between the State and the Penobscot Indian Nation, fish passage disputes between all parties, the company and State's challenge to federal authority to protect fisheries, and more. The Penobscot River Restoration Project established common ground among these interests in the following ways:

- Black Bear Hydro Partners, LLC (BBHP) expects to maintain essentially all power production. In fact, as a result of the agreement, BBHP has already increased energy generation at Stillwater, Medway and West Enfield through headpond increases and has enhanced energy production through expansions at three remaining projects (including the additional generating units at the Milford Project) with the support of the Agreement signatories.
- The conservation groups and Penobscot Indian Nation support the generation increases in this area, as part of the overall improved balance of energy, fisheries, and wildlife.
- This allows BBHP to focus on efficient energy production at its remaining generation sites.
- BBHP also has a predictable way to meet its fish passage obligations on the Penobscot River.

Penobscot River Restoration Project Before and After Habitat Access



**Existing Access for
Sea-Run Fish**



**Significantly Improved
Access for Sea-Run Fish to
Nearly 1,000 Miles**

Penobscot River Basin

- The Penobscot River is New England's second largest river system and drains an area of 8,570 square miles from the Maine/Quebec border to Penobscot bay near the Town of Bucksport.
- Upstream storage dams on the West and East Branches control a large portion of flows in the drainage area
- All Black Bear Hydro Partners, LLC's Penobscot River hydroelectric projects operate in a run-of-river mode.

