

Fact Sheet 2016: For more information visit: www.penobscotriver.org

The Penobscot River Restoration Project (Penobscot Project) has been an unprecedented collaborative effort that has rebalanced fisheries restoration and hydropower production in Maine’s largest watershed. The project has been widely acclaimed as one of the nation’s most innovative river restoration projects, and likely offers the last best chance to save native Atlantic salmon from extinction.

The project originated in 1999, when PPL Corporation purchased dams in the Penobscot River watershed. PPL, along with the U.S. Department of Interior, the Penobscot Indian Nation, the State of Maine, and several conservation groups, decided to explore the development of a comprehensive solution to a large number of issues involving hydropower relicensing, migratory fish passage, and ecological restoration on the Penobscot River. This commitment formed the basis for the Penobscot River Restoration Project¹.

THE PLAN: IMPROVE ACCESS TO 2000 MILES OF THE PENOBSCOT RIVER

In June 2004, after five years of negotiations, the Penobscot River Restoration Trust² signed a collaborative settlement agreement that put forth a far-reaching blueprint for a win-win, public-private effort to rebalance hydropower and sea-run fisheries on the Penobscot River. The Penobscot River Restoration Project implementation is now complete. With broad and deep public and private support, the project achieved the following steps to vastly improve access for Atlantic salmon and other sea-run fish to nearly 2000 miles of their historic river habitat:

- The Trust purchased and removed the two dams closest to the sea:
 - The Great Works Dam was decommissioned and removed in 2012
 - The Veazie Dam was decommissioned and removed in 2013
- The Trust also purchased and decommissioned the dam at Howland and constructed a stream-like fish bypass channel around it, completed in 2016.
- PPL increased hydropower production at six other sites, resulting in at least as much total hydropower production as before the dam removals.
- PPL improved fish passage at four dams along the river.

In addition, on an ongoing basis, communities are exploring economic and local development activities related to the river’s restoration, scientists and regulators are monitoring to document project outcomes, and some partners are working on additional improvements to fish passage in tributaries.

PROJECT BENEFITS The Penobscot River and its tributaries flow from near Mount Katahdin in the North Woods through the heart of Maine to Penobscot Bay. It is the largest river system within Maine, and the second largest in New England, draining 8,570 square miles—more than 1/4 of the state. The river acts as a valuable connection between people, land, fresh water, and the sea, delivering critical ecological benefits, and new and improved recreational, economic, and cultural opportunities. The benefits of the model cooperative conservation project are numerous:

- Provides unobstructed access to 100% of historic habitat for “lower river” fish species such as Atlantic and shortnose sturgeon and striped bass.
- Significantly improves access to nearly 2000 miles of historic river habitat for endangered Atlantic salmon and other “upper river” species of native sea-run fish.

¹ **Key Partners in the Penobscot River Restoration Project** include: PPL Corporation, Black Bear Hydro, LLC, the US Department of Interior’s Bureau of Fish and Wildlife Service, Bureau of Indian Affairs, and the National Park Service; National Oceanic and Atmospheric Administration; State of Maine’s Department of Marine Resources, Department of Inland Fisheries and Wildlife, and State Planning Office; the Penobscot Indian Nation; and the Penobscot River Restoration Trust and its Members. Since the signing of the Agreement, additional parties have joined the Project as partners, funders, or supporters.

² **The Penobscot River Restoration Trust** is a not-for-profit corporation established for the purpose of implementing core aspects of the Penobscot River Restoration Project, including the purchase and removal of the Veazie and Great Works dams, and bypass of the Howland Dam. The Members of the Penobscot Trust are: the Penobscot Indian Nation, American Rivers, Atlantic Salmon Federation, Maine Audubon, Natural Resources Council of Maine, The Nature Conservancy, and Trout Unlimited.

- Restores ecological systems that benefit native plants and animals along the river, estuary, and Gulf of Maine.
- Leads to a cleaner, healthier, more resilient river.
- Revitalizes the Penobscot Indian Nation's culture and traditions.
- Offers new opportunities for economic and community development in riverside communities.
- Enhances outdoor recreation such as fishing, paddling, and wildlife watching.
- Maintains hydropower generation.
- Resolves a number of longstanding issues and avoids future uncertainties over the regulation of the river.

The river has been home to the Penobscot Indians for more than 10,000 years. A restored river helps to strengthen and reinforce the Tribe's cultural heritage and identity. A restored river better connects the Penobscot Nation's homeland to the Atlantic Ocean and serves as an important migration and trade route, that brings sea-run fish to the nation, makes fish consumption safer, and renews opportunities for historic traditions.

The Penobscot Project's benefits extend to the whole watershed ecosystem and the Gulf of Maine. The project restores vital ecological links between the Gulf of Maine and the Penobscot River—one of the largest sources of freshwater to the Gulf. Native sea-run fish populations including alewife, American eel, American Shad, Atlantic salmon, Atlantic sturgeon, blueback herring, rainbow smelt, sea lamprey, shortnose sturgeon, striped bass, and tomcod are expected to rebound, fueling large-scale restoration of the Penobscot ecosystem and benefiting its diverse wildlife. Sizeable populations of native fish will provide dependable food for fish-eating birds and mammals such as kingfishers, river otters, osprey, and Bald Eagles. Over time, the increase in historic herring populations (alewife, blueback, and shad) could help to restore commercial ocean ground fisheries, as well.

Recreational fishing opportunities have begun to return and will expand. Removing dams in a strategic way has transformed impoundments to free-flowing river waters, improving water quality and increasing the abundance of aquatic insects that are needed for fish and migratory songbirds to thrive. New whitewater rapids in the area have created new canoeing and kayaking opportunities, including the new Penobscot River Whitewater National races. Boaters can now travel downriver, from Old Town to Penobscot Bay, without portages around dams. More and more diverse species of wildlife can now be spotted along places where the river flows freely, and angling opportunities are diversifying over time.

For centuries, the river has supported livelihoods and traditional recreation for residents of riverside communities. A restored river may create new opportunities for community development and revitalized economies. Festivals in communities along the river can create jobs and attract visitors; new and diverse outdoor recreation options can offer residents and visitors alike occasions to enjoy and explore the river; and a healthier river can inspire a renewed sense of pride and appreciation for this irreplaceable resource.

In the first two years after the Penobscot Project completed its dam removals, signs of fishery and community renewal are already evident. Sea-run fish are heading into newly accessible habitat. Where there were once no American shad, now there are more than 8,000, and river herring increased from zero to two million! Anglers now catch shad in places that were inaccessible to this excellent gamefish for a century. Sturgeon are reaching their breeding grounds past where Veazie Dam once stood. The Penobscot Nation has hosted two national whitewater races on the newly free-flowing lower river, bringing several hundred racers; and the race is slated again for 2017.

ENERGY

PPL has invested in hydropower generation at other dams in the area, resulting in a net increase in the amount of energy that is now generated. Though three dams were decommissioned, energy production was increased at several dams within the area (West Enfield, Medway, Milford, Stillwater, and Orono) to make up for the lost energy.

In 2009, PPL Maine sold the majority of their hydropower assets in the Penobscot River Basin, except for the dams that the Penobscot Trust later purchased, to Black Bear Hydro Partners, LLC. In 2014, Brookfield Renewables bought the dams and assumed the obligations under the Penobscot Agreement.