

Penobscot River Restoration Project: A Model for Sustainable Freshwater Management

Fresh water is the most threatened natural resource on Earth. Even in water-rich Maine, we've altered our lakes and rivers until they sustain nowhere near the abundance of life that they once did. But there is hope.

In the country's most ambitious river restoration project, The Nature Conservancy is working with partners to restore access to 1,000 miles of the Penobscot River for eleven migratory fish species. The plan is both simple and visionary - buy three dams, remove two, and by-pass the third.

"The Nature Conservancy is proud to be part of this innovative and unprecedented project," said Mike Tetreault, state director of The Nature Conservancy in Maine. "The benefits of this work will be felt -- in countless ways and for hundreds of miles -- by people and wildlife alike."

The project is attracting attention around the world, as well. At RiverSymposium, a global freshwater summit in Australia, the project generated excitement as a model for sustainable freshwater management in the developing world. Colin Apse, the Conservancy's deputy director of freshwater science for the eastern United States, attended the event for The Nature Conservancy, and describes why the project is stirring conversation.

Q: What can the Penobscot project teach us about the apparent conflict between hydropower generation and ecological protection in the developing world?

Apse: When we try to reconcile the soaring energy needs of developing countries with the realities of climate change, it becomes immediately clear that hydropower is going to be part of our future. What we are doing on the Penobscot is exactly what we need to be doing proactively in places like Africa and China: We need to find ways for hydropower to work with the ecology of the region.

Q: Working across the eastern United States, you are involved in dozens of restoration projects. What's special about this one?

Apse: The scale of this project is hard to ignore: We're restoring the second-largest river in the Northeast, the last vestige of habitat for the vast majority of Atlantic salmon remaining on the East Coast of the United States. And with the hydropower company increasing production at existing dams on tributaries to ensure that energy generation remains close to the same, the project is a real win-win. Dam removals can be contentious, but here all parties came together to find a way to make it work.

Q. What are some of the results you are looking for?

Apse: We're hoping to see improvements for fish in the river, but also for species like cod that feed on these fish when they travel to and from Penobscot Bay. We're also hoping that nutrients coming in and going out will make for more productive estuaries. As the climate changes, it will become increasingly important to integrate our freshwater and marine work in this way. I hope this project inspires energy planners to place dams in locations that are least disruptive to key processes, like migration, and to operate them in ways that maintain all of nature's key services. The best thing you can do to make an ecosystem more resilient is to keep it together.



Colin Apse