



East Branch Connectivity

The East Branch is a one million acre forested watershed with critical habitat for Atlantic salmon and brook trout.

Project: East Branch Penobscot River Connectivity Project, Penobscot River Watershed

Tributary: Originating at the base of Mount Katahdin the East Branch (including its larger tributaries such as the Seboeis and Wassataquoit Streams) spans 1 million acres in the upper Penobscot above Millinocket, Maine. The watershed contains several hundred miles of streams and extensive critical habitat for Atlantic salmon and brook trout. Historically, river herring were found in the East Branch below impassable falls.

Before



Problem: Currently, fish passage is impaired due to a network of approximately 400 road crossings (largely culverts) on the industrial timber land base. The land managers and owners often have the resources to properly install road crossings but do not necessarily understand the biological needs of fish and other aquatic organisms. Numerous studies have identified how culverts and dams can disrupt ecological processes, including hydrology, passage of large woody debris and movement of fish. Recent studies in the Penobscot have documented that 40% of all culverts act as severe barriers to fish passage.

After





Solution: In the summer of 2011, road crossing surveys were conducted by field interns from ASF, USFWS and the Nature Conservancy using established barrier inventory and monitoring protocols. Over the winter of 2012, the culvert data was analyzed and prioritized by their condition. A series of GIS maps that combined culvert results with critical Atlantic salmon, brook trout, and river herring habitat and other data were produced. During the summer of 2012, ASF and USFWS met with much of the industrial land base to present the data, held a workshop for foresters, and in October completed three demonstration restoration projects. In each of these projects, an undersized culvert was removed and replaced with an economical waste block bridge.



Anticipated Results: The goal of the project is to accelerate the pace of removing high priority barriers to fish passage in the drainage. An important component of the project has been the utilization of integrated optimization GIS models to allow managers to prioritize barrier removal scenarios. The industrial landowners and managers have expressed an interest in improving their road crossing by integrating the biological and technical information provided by this project into their management plans.



Partners: United States Fish and Wildlife Service Coastal Program, Natural Resource Conservation Service, Sewall Company, Elliotsville Plantation, Inc., Quimby Family Foundation, National Fish and Wildlife Foundation, and The Nature Conservancy.

Total Project Costs: \$130,000
Project Completion: October 2012