Shetucket River Habitat Enhancement Project

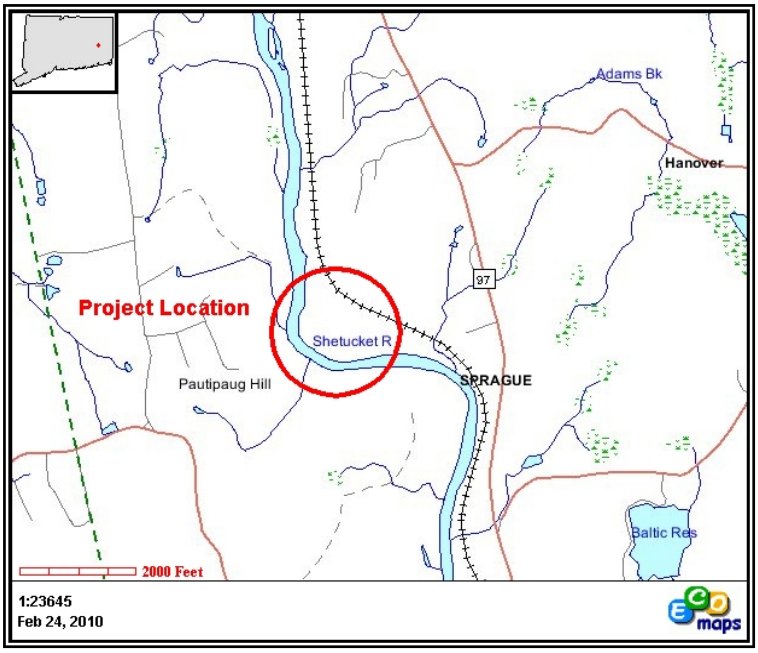
Location: Sprague, Salt Rock State Park

Completed: September 2009

Partners:
Department of Environmental Protection
Inland Fisheries Division
Wildlife Division, (WHAMM)
USDA
Natural Resources Conservation Service
U.S. Fish and Wildlife Service

Cost: $17,000

Engineering and Design:
Natural Resources Conservation Service



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Problem/Need
The Shetucket River below the Scotland Hydroelectric facility was determined as being deficient of Large Woody Habitat (LWH). LWH is typically defined by fisheries biologists as trees/logs with a minimum diameter of 4 inches and a minimum length of 6 feet that protrude or lay within a stream channel. Research has shown that large woody habitat is a very important natural component of a river's biological diversity and health. Large wood functions to create and enhance new instream fish habitats and also helps stabilize stream channels. In addition, wood helps collect organic materials such as leaves/twigs that provide an important food source for aquatic insects.

Enhancement Actions
The Shetucket River habitat enhancement project entailed the installation of three Constructed Log Jams and three Floating Log Covers placed along the east side of the Shetucket River adjacent to Salt Rock State Park property. The construction of a log jam involves the careful group placement of multiple trees (branches included) to form an interwoven complex of wood simulating the formation of natural log jams. Each structure was comprised of 8-10 hardwood trees. Log jams are secured in place with soil anchor devices and wire rope and will remain in place providing woody habitats for an estimated 15-20 year period. Floating log covers, which serve to provide overhead cover and velocity refugia are structures comprised of individual trees felled and anchored into the river at locations where there was no access for heavy equipment. They were installed in locations near larger boulders and bedrock outcrops significantly adding to the complexity of instream habitats.

Initial stages of log jam construction involving placement of cut hardwood trees.

Trees are secured in place with anchors and cable to complete constructed log jam (CLJ) comprised of several interwoven trees. Completed CLJ in above photo is placed parallel to streamflow.

Upstream view of stream habitat “before” CLJ placement.

Upstream view of stream habitat “after” CLJ placement.

Across stream view of CLJ installed perpendicular to streamflow.