

Hop River Habitat Restoration Project

Location: Columbia/Coventry
Public and private property

Implemented: September 2002

Partners:

Department of Environmental Protection
Inland Fisheries Division
Inland Water Resources Division
Wildlife Division (WHAMM)
CT Department of Transportation

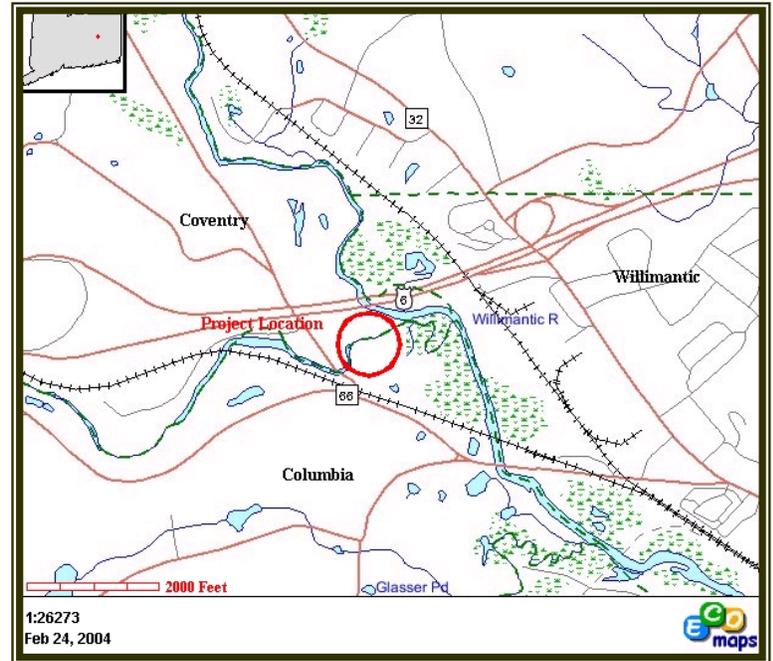
Cost: \$156,100

Engineering and Design:

The Bioengineering Group, Inc.
Survey work by Karl Acimovic, P.E.

Project Manager/Contact Information:

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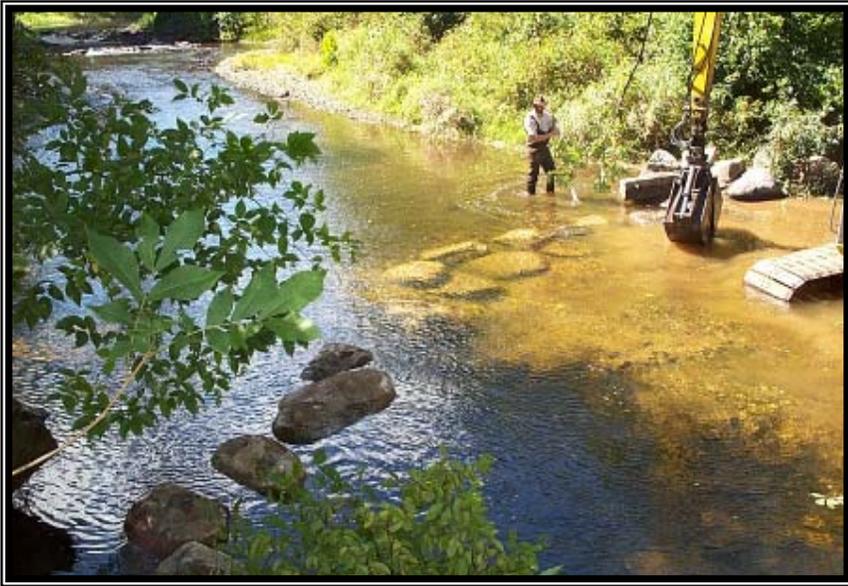


Problem/Need

Stream channelization and relocation upstream of the project area occurred in the early 1970's due to the construction of the Route 6 bypass. These river channel alterations in concert with increased watershed development helped accelerate streambank instability and erosion and sedimentation within a 1,100-ft. stretch of the lower Hop River. Goals of the project were to stabilize streambanks, stem the introduction of sediment into the river and restore and enhance instream fish habitats.

Restoration Actions

This is a comprehensive streambank stabilization, river channel and fish habitat restoration project utilizing soft armourment, bioengineering techniques and fluvial geomorphic principles. Approximately 600 linear feet of streambank were stabilized with a rock toe, triple layer coir fascine, erosion control fabric and livestake plantings. Pool habitats at two meanders were restored through excavation. A total of three vortex rock weirs were constructed to concentrate the stream's thalweg towards the center of the channel, away from eroding streambanks and to help maintain restored pool habitats. Eleven tree rootwad and boulder structures were installed to deflect stream flow away from streambanks and to provide valuable overhead cover for fish. Random boulder placement and several tree drops were installed in the lower section of the Hop River below the newly stabilized streambanks to enhance instream fish habitats.



Construction of a boulder vortex rock weir structure to concentrate flow toward the center of channel and away from streambanks.



Excavation of sediment to restore pool habitat for fish.



Installation of tree and rootwad to deflect flow away from bank, provide for overhead fish habitat, and scour instream habitat.



Installation of triple layer coir fascine to stabilize toe of slope.



Wetland vegetation planted in coir fascine.



Erosion and bank instability prior to restoration activities.



Restoration of streambank and growth of vegetation one year after project completion.