

Stony Brook Habitat Enhancement Project

Location: Montville, CTDOT property,
Interstate 395 Rest Area

Completed: September 1999

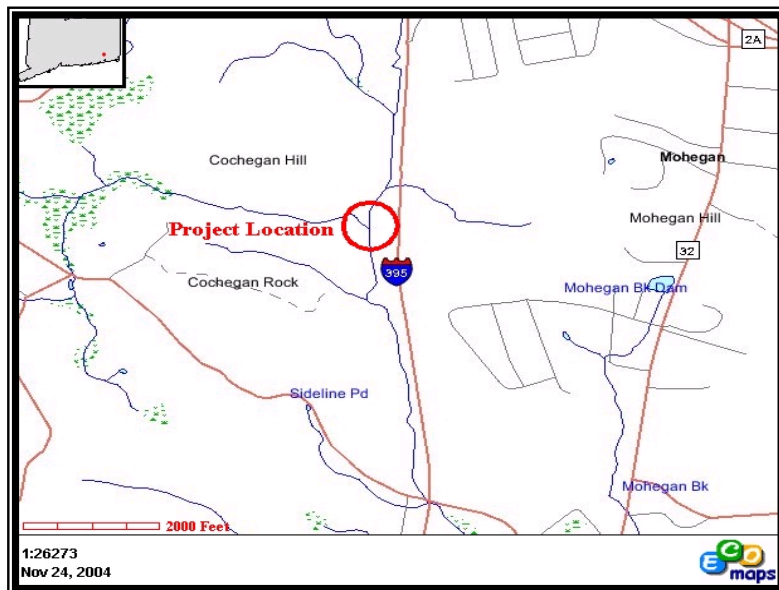
Partners:

Department of Environmental Protection
Inland Fisheries Division
Inland Water Resources Division
Planning & Standards Division

Cost: \$15,800

Engineering and Design:

Milone and MacBroom, Inc.



Project Manager/Contact Information:

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Problem/Need

An approximate 1,600 ft. length of Stony Brook adjacent to the Interstate 395 rest area in the Town of Montville had been relocated and channelized during highway construction. Modifications resulted in the creation of a wide trapezoidal channel with steep, earthen side slopes, high width-depth ratio and very shallow waters. Channelization resulted in degraded instream habitat for resident fish resources especially during the summer, early fall low flow period.

Restoration Actions

The design of the project consisted of installing a diversity of instream habitat structures to enhance habitat conditions for the resident fish community, including random boulders, wing and rootwad deflectors, LUNKERS, cross logs, and tree drops. Intermittent sections of stream habitat were enhanced within an 840 ft. stretch of Stony Brook. The specific aquatic resource benefits of the project were to: (1) enhance instream habitat for the coldwater fish community, (2) restore a low flow meandering channel to improve fish habitat, and (3) demonstrate technologies and methods for fish and aquatic habitat restoration, and (4) monitor population response of the trout community before and after enhancement. Monitoring surveys revealed that habitat enhancements led to the creation of more suitable habitat for larger (age 2) brown and brook trout based upon observable increases in both species subsequent to post enhancement efforts.



Installation of logs to create log/rock wing deflector.

Log/rock wing deflector after completion. This habitat structure is designed to create a narrow and sinuous channel.



Installation of cross-log habitat structure designed to create pool habitats above and below the structure.

Cross-log habitat structure after installation.





Installation of pre-fabricated LUNKER structures designed to create undercut streambank cover for fish.



View of LUNKERS after installation. Structures have been incorporated into the streambank underneath the water surface.