RI River & Stream Continuity Project
Road Crossings as Potential Barriers to Fish and Wildlife Movement

Background
Long linear ecosystems, rivers and streams are vulnerable to fragmentation. Human activities can disrupt river and stream habitats. The most familiar human-caused barriers in stream systems are dams.

A sub-standard culvert

In 2006, a partnership began in RI using information, assessment approaches and standards already developed through a similar project in Massachusetts. With assistance from Trout Unlimited (TU), and the Wood-Pawcatuck Watershed Association WPWA), the USDA-NRCS and the RI Resource Conservation and Development Council (RIRC&D) are coordinating an effort to create river and stream crossing standards and continuing a volunteer inventory program for culverts and other crossing structures. The objective is to more effectively identify and address barriers to fish movement and river and stream continuity.

Stream Crossing Inventory
Currently, TU and WPWA volunteers have inventoried over 800 stream crossings in the Upper and Lower Wood, Queens, Beaver, Upper Pawcatuck, Clear, and Millers River watersheds, and continue to survey the Branch and Pawcatuck River watersheds. Through this inventory, the greatest barriers to fish and wildlife movement can be identified for their restoration potential. Information is being compiled about fish and wildlife passage requirements, culvert design standards, and methodologies for evaluating barriers to fish and wildlife passage. This information will be used to develop design standards for culverts and other stream crossing barriers, and where possible, implement restoration projects.

There are over 4,300 road and railroad crossings affecting RI streams.
Restoring Habitat: Focus on Native Brook Trout

There is great potential for re-connecting many miles of river and stream systems in RI, benefitting migratory fish species (salmon, river herring, shad) and also resident freshwater fish and wildlife populations (trout and freshwater mussels, crayfish).

We hope to expand with more partners to continue assessment of streams in watersheds throughout RI. NRCS has provided training to Trout Unlimited volunteers who are an integral and essential part of surveying stream crossings.

Data collection forms developed by the Massachusetts Riverways Program have served as a template for the Rhode Island Stream Continuity project. Information collected consists of GPS coordinates, road/railway characteristics including vital information on traffic volume, stream characteristics, and structure measurements including data on the type and condition of the crossing.

Data from these crossings are entered into the MA Road Stream Crossing online database provided to RI by the UMass Department of Natural Resources Conservation. Find more information at: www.streamcontinuity.org

Project Partners

USDA-NRCS
RI RC&D Area Council, Inc.
Trout Unlimited-Narragansett & Northern RI Chapters
Wood Pawcatuck Watershed Association
UMass-Department of Natural Resources Conservation

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