Big Brook Culvert Replacement & NRCS Multi-state RCPP Grant

Colin Lawson

New England Project Coordinator colin.lawson@tu.org

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Northeast Coldwater Habitat Program







Stream Connectivity & Habitat Development

- Culvert Assessment & Restoration
- Instream Habitat Restoration
- Stream Bank Stabilization

- Project Design & Engineering
- Post Restoration Monitoring
- Dam Removal

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Staff Overview

Colin Lawson: New England Restoration Coordinator

Focusing on eastern MA, NH & southern ME

> Erin Rodgers: Western NE Restoration Coordinator

Focusing on western MA and southern VT

Joel DeStasio: New England Field Manager

Working primarily on Large Wood Habitat Projects across the NE area

> Jeff Tenley: Stream Restoration Specialist ~ Engineering Services

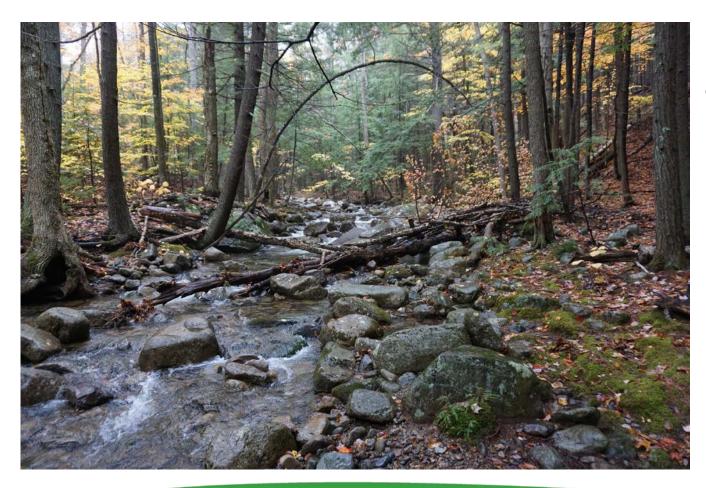
Working on Projects across New England and New York

Other NE Staff: Tracy Brown (western Connecticut & Upstate NY), and Jeff Reardon (ME)





Excellent Coldwater Tributary to the Swift River Overview



Reconnecting close to 2.2 miles of coldwater stream channel.





Passaconaway Road & Big Brook Road Crossing



Granite slab stone culvert

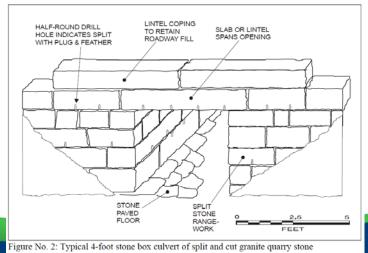
- Crossing Dimensions: 9 ft wide by 8 ft high
- Some of the granite header stones are 26 ft long



Completely Impassable Crossing

2.5 ft perch & 8 ft deep scour hole downstream.





What is the Regional Conservation Partnership Program (RCPP)

"Through RCPP, NRCS seeks to co-invest with partners to implement projects that demonstrate innovative solutions to conservation challenges and provide measurable improvements and outcomes tied to resource concerns at a <u>landscape scale</u>."



In our case **CONSERVATION PRACTICE STANDARD: CPS 395** ~ Stream Habitat Improvement and Management <u>Definition</u>: Improve, restore, or maintain the ecological functions of a stream and its adjacent floodplain and riparian area.

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Making a difference in our streams:

- Making a significant difference at a <u>landscape scale</u>
 - Creates <u>coldwater refugia</u>
 - Protects <u>habitat diversity</u>
 - Improves <u>flood resiliency</u>
 - Invites species diversity





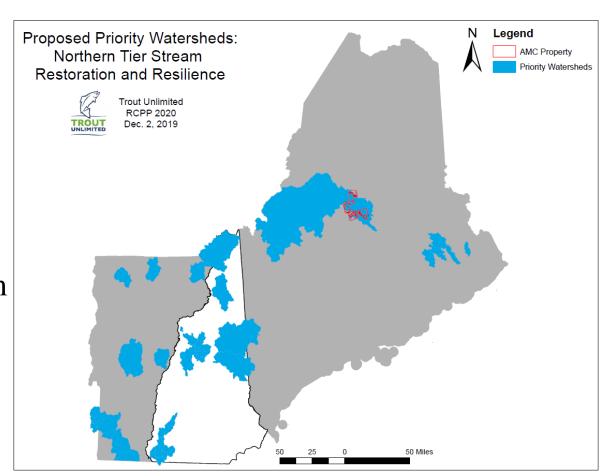


Primary Resource Concerns:

- Aquatic Habitat
- Climate Resilience

Primary Goal / Objective:

1. Our goal is to substantially improve in-stream habitat in high priority brook trout and endangered Atlantic salmon watersheds in the northern tier New England states.



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Project ~ Northern Tier Forests



1.8 Million Dollar Grant ~ Deliverables:

- 75 Miles of instream restoration across ME, NH & VT
- 200 Acres of invasive species management

TU's grant responsibilities:

- site assessments
- project planning
- partner outreach
- project monitoring
- project implementation











Equipment Used:

- Gas powered chainsaws
- Hand operated grip hoist (i.e. large come-along)
- Various hand tools (e.g. axes, rock bars, etc.)

Adding Large-Wood to Streams



Weeks after installation



One year after installation



Adding Large-Wood to Streams



Day of installation



Four years after installation



Adding Large-Wood to Streams



Day of installation



Four years after installation







Colin Lawson

colin.lawson@tu.org

603-228-2200

Joel DeStasio

joel.destasio@tu.org

603-228-2200

Avalanche Brook, Somewhere in the White Mountain National Forest near Waterville Valley, NH ~ that's all I can say...© Photo: TU

