

Lake Champlain Aquatic Habitat Connectivity

Fish Passage in the Winooski Watershed

Crossett Brook a tributary to the Winooski River, Duxbury, Vermont
Longitude: -72.78930 Latitude: 44.30790



Before



After

Left: A view of the Crossett Brook box culvert. **Right:** After retrofit with rock weirs and baffles.

Site description: Crossett Brook, and its tributaries flow eastward from Crossett Hill in Duxbury, VT and then turns north, continuing into the Winooski River. The lower waters support a wild rainbow, brown trout community, while the upper reaches contains native brook trout.

Problems / history: Brook trout habitat connectivity is disrupted by this barrier because it is undersized and perched, creating a height barrier for fish passage.

Objective and Method: The objective is to improve habitat along a half mile of Crossett Brook and its tributaries to provide stable habitat for native brook trout. The Service would work with the FWR and the Town of Duxbury to design, permit, and help retrofit the box culvert to create fish passage. Oversight of the project would insure habitat goals are met.

Partners and Funding: Funding and support for this project came from the Friends of the Winooski River, Town of Duxbury, VT ANR and the US Fish and Wildlife Service.

<u>Cost:</u>	<u>USFWS</u>	<u>FWR</u>	<u>TOTAL</u>
	\$23,843 (IK-\$2,000)	\$15,524 (IK-\$2,000)	\$43,367

Fish and AOP Passage: Before culvert replacement began fish biologists from the US Fish and Wildlife Service captured and marked fish downstream from the culvert with a fin clip. After the project was completed, biologists returned and collected fish above the new structure and found fish that had a fin clip proving passage through the culvert.

Pre-construction: 4-August
26 Brook Trout collected
Adipose clipped
Capture/Release within 100ft downstream

Post-construction: 16-August
6 Brook Trout collected
1 Adipose clipped: 60 mm
Fish captured within 100ft upstream