



# Restoring Habitat for Eastern Brook Trout- Smith Creek, VA

## PROJECT DESCRIPTION

Historic cattle grazing and agricultural practices over the last 225 years have eliminated the majority of riparian vegetation in the study area causing increased water temperatures and extensive sedimentation in both the pools and riffle habitats in the headwaters of Smith Creek. These land use changes have extirpated brook trout and greatly reduced populations of native gravel spawning fishes, native mussels and American eel in the study area.

The Smith Creek headwaters restoration will restore riparian and upland pastures to bottomland and upland forests in an area with several spring habitats that provide critical spawning, rearing and late summer temperature refuge habitats for brook trout. The restored habitat will connect to a small isolated brook trout population found upstream on protected National Forest land (Mountain Run).



*Schull Property: Before cattle exclusion, Winter 2006  
(Courtesy James Madison University)*

## PROJECT STATISTICS

*Location: Rockingham County, VA*

*Initiated: 2005*

*Estimated Year of Completion: 2011*

*Congressional District: VA06*

*Watershed Status: Extirpated*

*Landownership Status: Private*

## ACCOMPLISHMENTS

- Approximately 4 mi. stream restored
- 65 ac. riparian forest restored (12,651 trees)
- 251 head of cattle fenced out of 3mi. of stream
- Brook trout found using stream year-round
- Natural reproduction of brook trout identified the first year
- Tagged fish identified to have moved 2.5 miles upstream connecting Smith Creek to Mountain Run



*Rainbow Hill Farms Property: receding flood waters after tree planting, Summer 2006 (Courtesy James Madison University)*

## PARTNERS

- *U.S. Forest Service*
- *Fish America Foundation*
- *Virginia Department of Game and Inland Fisheries*
- *Rainbow Hill Farms*
- *James Madison University*
- *U.S. Fish and Wildlife Service*
- *Virginia Polytechnic Institute*
- *Canaan Valley Institute*
- *Massanutten Chapter of Trout Unlimited*
- *National Fish and Wildlife Foundation*

### For more information contact:

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