

East Branch Ausable River -- Restoration with Onsite Materials Keene Valley, NY -- Tropical Storm Irene Flood Devastated Area

Building: flood resiliency, river health, sustainable agricultural land, tourism, recreation & local economy

Made possible by Conservation Funds & Grants from: USFWS, Trout Unlimited, NFWF, FAF, NYS aid to localities
Trout Unlimited & USFWS restore .5 mi for \$134K (\$47/Linear Foot)
Compare to USACoE's 2010 Project bid of \$2.4M (\$845/Linear Foot)
Town of Keene to establish a recreational park at site



BEFORE
RESTORATION:

245 ft wide
sediment choked,
braided channel
post Tropical
Storm Irene (June
2012)

AFTER RESTORATION:
Stream narrowed to 90 ft
wide single channel,
3 months & 3 floods post
construction (Nov 2012)





BEFORE
RESTORATION:

185 ft wide stream,
barren, braided
channel post-Irene



AFTER RESTORATION:

Narrowed stream,
boulder studded riffle
(acting as grade control
and fish habitat)
Nov 2012



BEFORE RESTORATION:

145 foot wide, barren,
1,100 ft of collapsing bank,
losing 15,000 cu yds of
prime farm soil per year



Toe Wood Structure - layered, tangled wood at the base of the bank up to bankfull elevation covered with soil on the top for fish habitat and bank stabilization.



AFTER RESTORATION:

Deeper, narrower stream with
underbank Toe Wood Structure
providing habitat and protecting
farmland (Nov 2012). After 3
over bankfull events.

East Branch Ausable River 2012 Restoration: TU & USFWS (Partners and Fisheries Programs)



BEFORE RESTORATION:
Upstream view – wide shallow, barren, warm. Rapidly eroding farm field, 6 ft bank by 750 ft long



AFTER RESTORATION:
Downstream view, same bend, angler works underbank toe wood structure (Sept 2012)



BEFORE RESTORATION:

Unstable stream, flood deposited gravel, trees uprooted



AFTER RESTORATION:

Rootwads with trunks in reconstructed bank, restored boulder studded riffle, bank on left not yet restored.



A channel block being constructed at the top of one of the braided cutoff channels to return the stream to a single channel during normal flows.

The long absent eastern brook trout returned to the Toe Wood 4 days into construction. Representative picture – not taken at site.



For More Information please contact:

John Braico
NYS Trout Unlimited
jbraico@aol.com

Carl Schwartz
U.S. Fish and Wildlife Service
Carl_Schwartz@fws.gov