Based on site visits and consultation with Carl Schwartz of USFWS -- Cynthia Browning, BKWA – Updated 7/8/17

## (1) KRAUSS/MEYER or CAMBRIDGE LANTERN – Jackson/Shushan – 2017

This is a section of the river downstream of Eagleville Covered Bridge but upstream of Battenkill River Sports. In 2011 we installed structures both upstream (Atwater, Woody Hill) and along the Meyers' land that we revisit with this project, but landowner Nancy Clark Krauss, was not interested in having work done along her property at that time. She is now interested. There would be several log/rock structures installed along her section, along with a rebuilt bank shelf, and then we would also go downstream to Meyers to rebuild and reinforcement some of the structures from 2011.

This project will result in the addition of up to 60 to 70 feet of added cover and shelter from the structures installed along the Krauss banks on the outside of the river bend. These structures plus with extensions of the log/rock vanes along the Meyers property will combine to generate significant improvements in river dynamics that will sustain the improved trout habitat into the future.

Landowner permission from Krauss and both the Meyers has been obtained. There are public fishing rights here along both sides. The permit application has been submitted. Materials are being ordered. The contractors are reserved.

## **Structures:**

One bank full bench structure over 30 feet long, one 30 foot long bank protection structure in several sections, extend and repair about six log/rock vane structures, and extend and repair one big rock vane from 2011. Plant trees/bushes.

## **Materials:**

Approximately: 6 whole trees, 11 logs, 24 tree rootwads, 24 slate, 44 boulders.

- (1) 1 Bank Bench Stabilization Structure over 30 feet long with varying structures along that
  - 6 whole trees, 30' long, 14" dbh
  - 7 tree rootwads, 20' 24' long, 18" dbh
  - 10 boulders at least 3' to 4' in one dimension
- (2) 1 Bank Stabilization Structure using wood and stone three sections adding up to about 30 feet of structures with wood and stone installed around existing trees
  - 3 tree rootwads 20' to 24' long, 18" dbh
  - 3 logs 20' long, 18" dbh
  - 8 boulders at least 3' to 4' in one dimension
- (3) 1 Big Rock Vane rebuild
  - 8 Slate at least 4' in one dimension
  - 4 Boulders at least 3' in one dimension
- (4) 6 Log/Rock Vane Repairs

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Each Repair: 1 log 30'long, 24" dbh total 6
2 tree rootwads 20' long, 20" dbh " 12
3 boulders at least 3' in one dimension " 18
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- 2 slate at least 3' in one dimension " 12
- (5) 1 Access Repair Downstream -- dimensions not as critical here on the materials 2 Logs, 2 Tree rootwads, 2 Boulders, 2 Slate

## **Cost Estimate:**

BKWA planning, permitting, ordering materials, management \$1,000
BKWA insurance cost allocation\$200
Excavator & operator \$8,000
Site preparation, in-river construction & site restoration – probably about one week
to ten days work.
Grapple skidder \$4,000
On site delivery of tree & stone materials to excavator probably about one week.
Big slate
Loaded & delivered.
Tree rootwads
Harvested, loaded, & delivered.
Whole trees\$2,445
Harvested, loaded, & delivered.
Logs\$1,300
Harvested, loaded, & delivered.
Big boulders
Loaded & delivered.
Total Cambridge Lantern Project Costs Estimate: \$28,685

**Funding:** \*\*\*Confirmation of funding needed.\*\*\*

Adirondack Trout Unlimited – up to \$15,000 pledged?

Clearwater Trout Unlimited – up to \$15,000 pledged? -- \$10,000 advanced to BKWA already.

Alliance membership funds as needed and as possible.

**Schedule:** Project is scheduled to begin the week of Monday, August 21st, 2017.