

**Beaverdam Run Habitat Improvement and Sediment Reduction  
Final Report by Trout Unlimited  
January 31, 2018**

**Project Photos**



Beaverdam Run Site A: BEFORE



Beaverdam Run Site A: AFTER





Beaverdam Run Site B: BEFORE



Beaverdam Run Site B: AFTER

### **Project Summary**

A public meeting was held with the Kettle Creek Watershed Association on May 20, 2017 at the Kettle Creek Hose Company in Cross Fork, Pennsylvania, during which the project design and plans were discussed with member of the KCWA and general public. During the week of 18 September 2018, representatives from Kettle Creek Watershed Association, Clinton County Conservation District, Lock Haven University, and Trout Unlimited staff installed three log-framed cross vanes, four log-framed deflectors, two single log vanes, and seven root-wad deflectors along a 1,100-ft section of Beaverdam

Run. Addressing instream habitat and nonpoint source sediment pollution was a recommendation in the Beaverdam Run Coldwater Heritage Partnership Plan as incorporated in the comprehensive *Upper Kettle Creek Fish Habitat Conservation Plan Tributaries Addendum (2005)*. The purpose of these structures is to increase available brook trout habitat, stabilize 1,100 feet of Beaverdam Run, and reduce nonpoint source sediment pollution by approximately 820 lbs/year.

### **Outcomes**

The project outcomes were successfully met, with the exception of a change in the original number of structures estimated for the project. Due to a change in site conditions since the time of the design and available materials, the Trout Unlimited project coordinator made slight modifications to the design plan. Instead of constructing the modified mud sill, root-wad deflectors were used to stabilize the bank and increase complex woody habitat. The total number of structures built was 15 instead of the original 17 as shown on the design plan.

### **Project Sustainability**

The structures are made of logs and rocks and have proven to be very durable materials over time. These structures have a long track record of being built in Pennsylvania, some of which have lasted 30 plus years. Monitoring of the project will be conducted by visual assessments of the structures through a joint effort between Trout Unlimited and the Kettle Creek Watershed Association. If maintenance is needed on any of the structures, Trout Unlimited will work with the Kettle Creek Watershed Association to plan and implement activities necessary to address the problems and/or ensure structure longevity.

### **Next Phase or Future Plans**

At this time, there are no future plans or phases of this project. The project was completed on a section of Beaverdam Run that is listed as Class A in order to sustain that population. However, there have been some discussions regarding the expansion of habitat improvement upstream of this section on Beaverdam Run with the purpose of increasing the stream miles listed as Class A.

### **Services by Partners and Volunteers**

A total of ten individuals from the Kettle Creek Watershed Association, Clinton County Conservation District, and Lock Haven University provided labor assistance with the installation of structures for the project, which translates into approximately 150 hours of in-kind services for this project.

### **Accomplishments and Outputs**

A total of 15 structures were constructed to increase brook trout habitat, stabilize 1,100-ft of Beaverdam Run, and reduce approximately 820 lbs/year of nonpoint source sediment pollution.

Final Budget

| LINE ITEM   | DESCRIPTIONS/DETAILS/<br>EXPLANATIONS                                     | CHP GRANT<br>FUNDS<br>REQUESTED | LOCAL<br>CONTRIBUTIONS |         |
|---|---|---------------------------------|------------------------|---------|
|   |   |                                 | CASH                   | IN-KIND |
| <b>SALARY AND<br/>BENEFITS</b><br><br>(PLEASE BE SPECIFIC)  | TU HABITAT COORDINATOR  |                                 | 3,183                  |         |
|   | TU SEASONAL BIOLOGICAL INTERN   |                                 | 450                    |         |
| <b>TRAVEL</b><br><br>(PLEASE BE SPECIFIC)   | TU STAFF MILEAGE 700 MI @ \$0.54/MI                                       |                                 | 378                    |         |
| <b>EQUIPMENT &amp;<br/>SUPPLIES</b><br><br>(PLEASE LIST EACH ITEM.<br>ATTACH A SEPARATE SHEET<br>IF NECESSARY.) | 44 20-FT LARCH TREES  |                                 | 2,050                  |         |
|   |   |                                 |                        |         |
|   |   |                                 |                        |         |
|   |   |                                 |                        |         |
|   |   |                                 |                        |         |
|   |   |                                 |                        |         |
| <b>CONSTRUCTION</b><br>(PLEASE BE SPECIFIC)   | 2 MACHINES + 2 OPERATORS 40<br>HRS @ \$200/HR (INCLUDES ALL<br>MATERIALS) | 6,000                           |                        |         |
|   |   |                                 |                        |         |
|   |   |                                 |                        |         |
|   |   |                                 |                        |         |
| <b>OTHER</b>  | ADMINISTRATION (OVERHEAD)   |                                 | 1,944                  |         |
|   |   |                                 |                        |         |
| <b>TOTAL</b>  |   | <b>\$6000</b>                   | <b>\$8,005</b>         |         |