

Coldwater Heritage Partnership Final Report

Blue Run Streambank Stabilization and Fish Habitat Improvement Project

Tioga County



Prepared by:

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Project Summary

The Tiadaghton Chapter of Trout Unlimited (TCTU), in partnership with the Tioga County Conservation District (TCCD), Trout Unlimited National (TU), Department of Conservation and Natural Resources (DCNR), and Patterson Lumber Company, improved 1.6 miles of Blue Run through the use of large wood additions. 51 structures were built using an average of four stems per structure. The devices were installed strategically to maintain the thalweg in the center of the channel and increase toe stability of actively eroding banks. Additional benefits of this project include increased overhead cover, complex woody material, engagement of the floodplain, and additional pool habitat.

Blue Run is a vital coldwater fishery found within the Long Run watershed located near Gaines, PA. The improvements made to this stream will play a vital role in TCTU's goal to raise the rank of Long Run to a Class A fishery. Blue Run was highlighted in TU's Snapshot Survey of the Long Run watershed for its necessity for streambank stabilization and needing increased fish habitat.

Project Outcomes

- 51 chop and drop structures
- 11,059 feet of Streambank Stabilization
- Annual reduction of 1,473lbs. of sediment, 1.68lbs. of nitrogen, and 0.77lbs. of phosphorus
- Increase in fish habitat
- Reconnection to flood plain
- Completion of recommendations contained in the Long Run Watershed Snapshot completed in 2019
- 1 education blog posted on TCTU's website

Project Sustainability

Even though the project is complete there is still work to be done in Blue Run. An annual inspection of the project sites will be performed to determine how well they are impacting the stream. If a structure is not performing properly, TU will be contacted, and a plan will be made from there. The Pine Creek Watershed Council (PCWC) is continuing conservation efforts in Blue Run by planting conifer trees within the riparian zone. They planted 500 trees in the Blue Run watershed in 2022 and intend to continue to plant in future years. These trees will supply shade to keep the stream cold and increase streambank stability. Conservation efforts in this tributary are intended to aid in the overall goal of increasing Long Run to a Class A fishery.

Project Accomplishments and Outputs

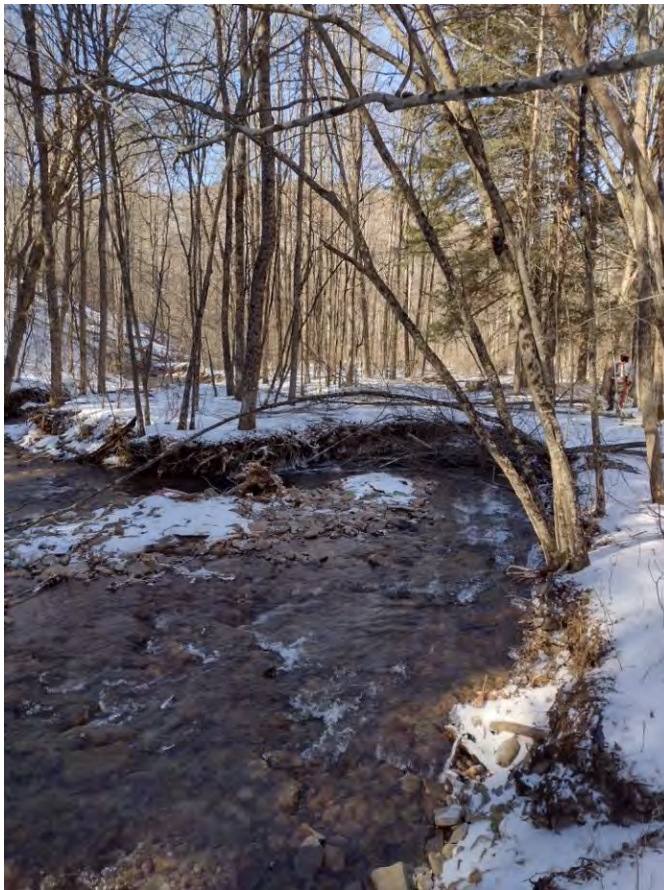
During the time of this project, 51 chop and drop structures were built in a 1.6 mile stretch of Blue Run. Together these devices stabilized approximately 11,059 feet of Blue Run. The built structure will prevent 1,473 pounds of sediment, 1.68 pounds of nitrogen, and 0.77 pounds of

phosphorus from entering the stream annually. These structures will also provide fish habitat by creating overhead cover, increased pool habitat, and increased fine gravel for spawning.

Project Partners

Project partners met April 6, 2021 to discuss the project with the public at a Tiadaghton Chapter of Trout Unlimited's public meeting. Project partners consisted of The Tiadaghton Chapter of TU, Trout Unlimited's Coldwater Habitat Program, Tioga County Conservation District (TCCD), Pine Creek Watershed Council (PCWC), Department of Conservation and Natural Resources (DCNR), and Patteson Lumber Company. The Tiadaghton Chapter of TU was the grant holder and held the public meetings for the project. TU Coldwater Habitat Program provided the plans, permits, and construction of structures. TCCD provided grant and project oversight, as well as temperature monitoring equipment. PCWC provided volunteers for water monitoring and tree plantings. DCNR and Patterson Lumber Company were the landowners in the watershed and provided the trees that now lay within the stream.

Project Pictures



Picture 1. Entrenched stream eroding a new path through the forest creating a harsh curve in the stream



Picture 2. Strategically fallen trees to plug hole and catch sediment to remedy issues depicted in Picture 1.



Picture 3. Eroding streambank before remediation



Picture 4. Chop and drop remediation used to slow velocity and assist in floodplain access for site depicted in picture 3.

Attachments

- CHP Final Budget Report for Blue Run Streambank Stabilization and Fish Habitat Improvement Project
- Trout Unlimited's Final Report for Blue Run Large Wood Addition Project Blue Run, Tioga County
- Link to Chop n' Drop on Blue Run blog post on TCTU's Website:
<https://www.tiadaghtontu.com/blue-run-chop-and-drop/>