

Clarion River Protection Project
DEP Identifier C990002439
Western Pennsylvania Conservancy

PROJECT DESCRIPTION

The Wild and Scenic Clarion River forms the northern boundary of Clear Creek State Park in Barnett Township, Jefferson County. Years of historic and current watershed alterations caused a 1,500-foot-long section of river bank, immediately downstream of the confluence of Clear Creek (stream name) and the Clarion River, to begin eroding in the late 1990s. Measured on aerial imagery at an average loss of three feet of streambank per year, the erosion had removed more than 60 feet of land, as well as camp sites, at the park by the mid 2010s. State Park staff requested assistance from Western Pennsylvania Conservancy's (WPC) Watershed Conservation Program to find a solution that would stabilize the bank while remaining within Wild and Scenic River management regulations. WPC worked with local, state, and federal regulatory agencies to develop a stabilization plan that included installing cut logs, logs with rootballs attached, and fabric wrapped soil lifts with live, native shrub cuttings between them to harden the slope and quickly establish the roots of woody vegetation. These practices were implemented in July and August 2024, with additional riparian planting and live-stake transplanting in fall of 2024 and planned for the spring of 2025. This project stabilized the bank to reduce sedimentation, made it safer for park visitors, and will serve as a location for environmental education on river dynamics, bank stabilization, and ecosystem function.

PROJECT GOALS

The overall goal of this project was to stabilize 1,500 feet of streambank along the Clarion River and demonstrate natural stream channel restoration methods to restore water quality and improve aquatic and riparian habitat.

PROJECT RESULTS

A total of 1,500 feet of eroding stream banks were stabilized to prevent erosion and sedimentation impairments to water quality, two engineered log-jams were placed to deflect flow away from the bank, 160 scour prevention logs and 60 logs with attached rootballs were placed to stabilize the base of the bank, and more than 10,000 live-branch cuttings were planted in fabric-wrapped soil lifts to restore this section of river bank and floodplain.

PICTURES



Before



During Construction



Two months after restoration

PROJECT COSTS

PA DEP Growing Greener funds used to complete this project totaled \$150,668 and were matched with in-kind donated labor, materials and services of \$28,431, for a total project cost of \$179,099.

LESSONS LEARNED

Low-flow conditions were necessary for construction, and the project was implemented in July and August of 2024. While this is the least ideal time to install live-plant cuttings, careful storage in Clear Creek and early morning installation allowed many cuttings to show growth within two months of project completion.

PARTNERS

The Department of Environmental Protection contributed a Growing Greener Plus cash grant to fund this project. Western Pennsylvania Conservancy worked closely with PA DCNR Clear Creek State Park and the Iron Furnace, Allegheny Mountain, and Jim Zwald chapters of Trout Unlimited to implement this project.

CONTACT INFORMATION

Luke Bobnar, Watershed Projects Manager

lbobnar@paconserve.org

www.waterlandlife.org