

RACCOON CREEK BANK & BUFFER PROJECT
PA Department of Environmental Protection
PA Growing Greener Watershed Protection Program Grant
Project Identifier: 4100073998; Grant Award: \$99,785

In 2016, Independence Conservancy (grantee) and Stream Restoration Incorporated (sponsor) were awarded a PA Growing Greener Watershed Protection Program Grant. The grant provided funding to stabilize 500 feet of bank on the main stem of Raccoon Creek. The project sought to implement key recommendations of the 2014 *Raccoon Creek Region Conservation Plan*: to reduce erosion, halt riparian habitat loss, lessen sediment loading and re-establish a streamside buffer of native vegetation. The project also sought to address an abandoned pipeline, exposed by bank erosion, which posed a hazard to recreational use of the creek. Bioengineering and traditional techniques were used to reinforce the eroding streambank, including grading, stone toe protection, rootwad deflectors, live-stakes, brush layering, rock vanes, and erosion control blankets. 500 feet of streambank was re-graded, while an additional 400 feet was stabilized with live-stakes and riparian buffer plantings. Japanese knotweed (*Fallopia japonica*) was treated, cut from the banks and replaced with native vegetation. Additional permitting allowed for partial removal of a gravel bar, deflecting stream energy away from the bank and towards the center of the channel during higher flows. This high-profile project generated interest among local residents, adjacent landowners, and municipal officials. Two dozen enthusiastic volunteers planted 2700 live-stakes, 800 native tree and shrub seedlings, and 15 balled & burlapped shade trees within the 900-foot riparian buffer. Neighboring landowner Shell Pennsylvania Chemicals donated 2000 tons of native sandstone boulders to build four rock vanes, a kayak launch and visitor-friendly features. With in-kind contributions and donations, the original scope of work, and more, was finished in April of 2018, on time and within the grant budget.



Raccoon Creek before bank stabilization-2015



After project completion-2018

Partners: BioMost, Inc.; Independence Conservancy, Inc.; PA Department of Environmental Protection; Foundation for Pennsylvania Watersheds; Shell Pennsylvania Chemicals; Beaver County Conservation District.

For additional information contact: Independence Conservancy, Inc. [PA non-profit 501(c)(3)], PO Box 248, Industry, PA 15052; 724-495-7316; info@independenceconservancy.org; www.independenceconservancy.org.



Top Left: Upstream rock vane under construction. Four rock vanes direct flow towards the center of the stream, improve in-stream habitat, and offer recreational access to the water (Fall 2017).

Top Right: Downstream view of the completed rock vanes and re-contoured streambank after erosion control blanket installation (Fall 2017).

Above Left: Volunteers planted 2700 live willow stakes to stabilize the re-graded bank (Spring 2018).

Above Right: About two dozen volunteers were trained in the proper use of hand tools before setting out to plant 800 bare-root tree seedlings in the riparian zone (Spring 2018).

Below: One of several redbud trees donated by Shell Pennsylvania Chemicals (Spring 2018).

