Gallagher Run Bank Restoration and De-channelization

DEP Identifier C990000707 Western Pennsylvania Conservancy

PROJECT DESCRIPTION

Gallagher Run is largely channelized as it flows through Ridgway, Elk County, on its way toward Elk Creek and the larger Clarion River watershed. Approximately 200 feet of this channelized reach was contained by failing gabion baskets through a section of St. Leo Magnus Catholic Church yard. Flooding and high-water events had compromised the stability of the structures, creating a hazard for people and the environment. As part of a joint effort by St. Leo Church, Jim Zwald chapter of Trout Unlimited, and the Western Pennsylvania Conservancy, this project proposed to remove the failing gabion baskets, slope the banks to a more natural gradient, install fish habitat structures, and plant native riparian wildflowers and shrubs to stabilize the stream banks more naturally. By taking these actions, the channelization was eliminated in this stretch of Gallagher Run. Sloping the banks and replanting with native species also gives the channel more capacity, reducing flooding downstream and allowing floodwaters to more easily infiltrate into the groundwater table. With its highly-visible location in Ridgway immediately adjacent to Rt. 120, this project will also serve as an education and demonstration project and will be studied by students who attend St. Leo Catholic School (grades K-8).

PROJECT GOALS

The overall goal of this project was to de-channelize a 200-ft. section of Gallagher Run and demonstrate natural stream channel restoration methods to restore water quality and improve aquatic and riparian habitat.

PROJECT RESULTS

A total of 400 feet of eroding stream banks were stabilized to prevent erosion and sedimentation impairments to water quality, nine rock cross-vanes were embedded across the stream channel to control the streambed's gradient and improve aquatic habitat in Gallagher Run, and 4,000 square feet of native riparian wildflowers were planted along the stream. Local partners will plant shrubs along the stream in the spring of 2022.

PICTURES



Before After



Two months after restoration

PROJECT COSTS

PA DEP Growing Greener funds used to complete Phase 2 totaled \$32,617 and were matched with cash grants and in-kind donated labor and services of \$6,818 for a total project cost of \$39,435.

LESSONS LEARNED

Gabion basket removal requires cutting sections of fencing, which often leaves metal fragments mixed with cobble and debris. Metal fragments should be removed using a heavy-strength magnet to scour the work area.

PARTNERS

The Department of Environmental Protection contributed a cash grant to fund this project. Western Pennsylvania Conservancy worked closely with St. Leo Magnus Catholic Church and the Jim Zwald chapter of Trout Unlimited to implement this project.

CONTACT INFORMATION

Kylie Maland, Watershed Manager, Lake Erie and Ohio River Basin kmaland@paconserve.org
www.waterlandlife.org