Implementing High Priority Restoration in the Lehigh Watershed
DEP #4100081235
Summary

The Implementing High Priority Restoration in the Lehigh Watershed employed a strategic approach to address nonpoint source pollution and degraded wildlife habitat throughout the Lehigh River watershed. Assessments and landowner outreach supported by previous Growing Greener funding identified numerous sites in need of restoration. This project enabled us to complete seven of these high priority stream reaches and create large-scale, long term water quality and habitat improvement throughout the Lehigh watershed. The project involved design, permitting and construction for stream, floodplain, and wetland restoration through the removal of seven dams along the Jordan Creek, Saucon Creek, Tunkhannock Creek, and Bushkill Creek covering Lehigh, Northampton, and Monroe Counties.

At each of these seven sites, the presence of dams and impoundments was severely degrading cold water streams in the Lehigh Valley and Lehigh River watershed. The result of these structures was erosion and significant sedimentation, exacerbated local flooding, decreased water quality, loss of fish passage and habitat, and obstructed nutrients and flow. These dams created highly disturbed environments characterized by actively eroding streambanks, invasive species, stagnant and sediment-laden pools of water, and a lack of habitat suitable for native coldwater species. Wildlands partnered with state agencies, local municipalities, and landowners to develop plans and complete the construction of the dam removals, riparian buffer restoration, and instream habitat structure installation.

Removing the dams restored fish passage and free-flowing conditions to address the previous conditions of unnaturally warm, sediment-laden water impounded by the structures. Floodplain function is restored, to create wildlife habitat and assist in groundwater recharge and stormwater management in high flow. In addition to the dams being removed, eroded stream banks were stabilized and planted, more than ten instream habitat structures were installed to enhance habitat restoration, litter and debris were removed in the floodplains during volunteer planting events, and riparian buffers and wetlands were further enhanced with planting over 500 native trees and shrubs, 1,000 native herbaceous plugs, and 150lbs of native seed. These projects are located on sites open to the public, where visitors are regularly on site fishing and enjoying nature throughout the open space. These sites serve as a model for best management practices and natural resource protection.