

Lehigh Valley Greenways Conservation Landscape SUCCESS STORY

By: Wildlands
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Lehigh Valley Buffer Analysis and Pilot Planting Project

SUMMARY

This project analyzed the existing composition of the riparian corridor along Lehigh Valley streams, identifying gaps in riparian buffer coverage. From this analysis, Wildlands created an online interactive map showing the gaps in buffer coverage, or “opportunity areas,” for the entirety of the Lehigh Valley regional stream network. This map is intended to help guide conservation organizations working on riparian buffer restoration throughout the Lehigh Valley. Wildlands used the analysis to identify and implement a pilot riparian buffer planting project at Saucon Park in Bethlehem.



CHALLENGE

Riparian buffers are vital for stabilizing streambanks, slowing floodwaters, cooling streams, improving water quality, and providing habitat for fish and wildlife species. When these important ecosystems are missing, there are significant long-term impacts to water quality and aquatic communities. Throughout the Lehigh Valley, many streams are in various states of distress, in part due to ineffective or absent riparian buffer zones. Most of these areas have been maintained as mown grass to the stream edge or, if allowed to grow, are too narrow to provide an actual benefit. Until the completion of this project, there was no definitive and comprehensive analysis of these riparian buffer restoration needs throughout the Valley. Instead, Wildlands has taken more of a piecemeal approach – focusing on familiar areas rather than prioritizing based on Lehigh Valley restoration needs as a whole. Analyzing existing buffer coverage would allow for a more comprehensive approach to regional riparian restoration.

FUNDING

Grant Award:
\$6,000.00

Match:
\$11,977.82

Total Project Cost:
\$17,977.82

PARTNERSHIP IS KEY

City of Bethlehem
Bethlehem City EAC
PPL Electric (volunteers)
Saucon Creek Watershed Association
Saucon Valley Country Club



SOLUTION

In order to facilitate riparian buffer establishment efforts, this project has successfully created a comprehensive map that determines the composition of riparian buffers along every stream in the Lehigh Valley. The map identifies riparian buffer restoration opportunities throughout the area and is intended to help guide future restoration efforts. Using the newly available high-resolution 1-meter landcover dataset, the existing buffer coverage was analyzed along all 1,100 miles of stream. During this analysis, Wildlands looked at groundcover types, canopy cover, buffer density, and relative width. The resulting map was produced in an interactive ArcGIS online format, which permits sharing with regional partners. A 2-acre pilot planting identified from this analysis was established with 100 native riparian trees and shrubs at Saucon Park in 2018.

RESULTS

By completing a comprehensive analysis of existing buffer coverage, Wildlands can focus strategically on riparian buffer restoration throughout the Lehigh Valley. This project created an online interactive mapping tool after analyzing 1,100 miles of stream corridor and more than 15,000 acres of existing riparian area. The mapping tool can be used to identify new project areas, analyze buffer coverage in a given area, and expand existing projects to include buffer restoration. This project identified more than 3,600 acres of buffer opportunity area in the Lehigh Valley. As a final component to this project, Wildlands worked with the City of Bethlehem to expand the riparian buffer at the City's Saucon Park. This pilot planting project established 100 native trees and shrubs in a 2-acre area of the park along Saucon Creek. Wildlands staff also gave four presentations on the mapping tool and riparian buffer restoration efforts in the Lehigh Valley.

Contact



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