

Landis Homes Stream and Floodplain Restoration

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Problem:

Kurtz Run, a tributary to the Conestoga River that flows through the Landis Homes retirement community, was showing clear signs of degradation. In addition to improving stream function, Landis Homes wanted to improve the biodiversity and development efficiency of the site. Since the 800 acres of protected farmland surrounding the site made acquiring additional acreage an unrealistic option, Landis Homes worked with LandStudies, Inc. to develop a stream and floodplain restoration project to provide environmental, community, and economic benefits.



Eroding streambanks and the wide stream channel of Kurtz Run before restoration.

Solution:

The floodplain restoration project removed approximately 27,500 cubic yards of legacy sediment from the floodplain and increased the site's floodwater storage potential. As a result, two stormwater basins were removed to allow for additional buildable acreage. Stream bank stabilization reduced erosion, and wetland construction increased runoff absorption and filtration to improve local water quality. The floodplain restoration, planted with colorful native vegetation, attracts wildlife and provides an aesthetic benefit for residents who use the trail for exercise and nature study.



Post-construction stream and floodplain restoration.

Photo credit: LandStudies

Key Project Facts

Project Location: Lititz, PA

Type of Project: Stream/floodplain restoration

Scale: 7 acres of wetlands created; 2,600 linear feet of stream restored; 8 acres of native ecosystem restoration and improved biodiversity; 25,000 native herbaceous plugs, > 700 trees and shrubs

Pollutants Removed: 800 lbs/yr phosphorus; 75 tons/yr sediment

Cost: \$743,719.27 (Design & Permitting: \$144,068.48; Permit Coordination: \$45,115.79; Construction: \$554,535)

Funding Sources: Privately funded by Landis Homes Retirement Community

Partners: Landis Homes; LandStudies, Inc.; RGS Associates, Inc.

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What is Polluted Runoff?

The growth of our cities has resulted in too many paved surfaces, which prevent rain water from being absorbed by the ground. Instead, the water runs off streets and buildings, collecting trash and dangerous chemicals on its way. This contaminated water overflows into our streams and rivers, creating public health hazards and toxic waters.

Stormwater projects create safe paths for polluted runoff to be captured and filtered before it reaches our waterways. They keep communities healthy and the environment clean.

When communities and their local governments work together to solve big problems like stormwater runoff, that's a story worth telling!