

New Street Park Ecological Restoration

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Problem:

The portions of Santo Domingo Creek that flowed through New Street Park, a community park in Lititz Borough, were severely degraded. The straightened stream banks were steep and eroded, and the channel cut down deep into legacy sediment. Flooding was a frequent problem in the adjoining, heavily populated areas.

Solution:

A multi-phased ecological restoration improved water quality, increased flood storage and provided protection to downstream bridges from flood damage and debris. The first phase included removing sediments and nutrients from the stream system, creating fully functional wetland areas, and incorporating native plants along the restored portions of the stream. The second phase improved park amenities and restored downstream areas. Restoring the losing reach also increased aquifer recharge and pollutant removal performance. This project served as a pilot project that helped establish nutrient pollution trading parameters in the Conestoga Watershed.

Economic benefits: The primary benefits that resulted from the estimated 281% Return on Investment included increased land and home values, flood reduction mitigation, reduced damage to infrastructure, and MS4 permit compliance.



Eroding banks of Santo Domingo Creek before restoration



Restored Santo Domingo Creek

Photo credit: LandStudies, Inc.

Key Project Facts

Project Location: Lititz Borough, PA

Type of Project: Floodplain restoration and stream bank stabilization

Scale: 750-ft straightened section of stream was restored to 950-ft of meandering stream channel

Pollutants Removed:

- 15.6 million lbs. sediment
- 8,900 lbs. phosphorous
- 26,000 lbs. nitrogen

Cost: \$732,521

Collaborators: Pfizer, Lititz Borough, LandStudies, Inc.

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What is nutrient trading?

Nutrient trading is a way for farmers, foresters, businesses, and other facilities to reduce pollution more than is legally required by selling additional reductions as credits to other businesses, facilities, and local municipalities so that these other entities can meet their reduction requirements. Trading can help localities and businesses reduce pollution and meet their requirements more cost-effectively and often more quickly. (Chesapeake Bay Foundation)

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