

Client
City of Aurora

Key Services Provided
Design-Build Services
Stream and Wetland
Restoration

Project Duration
February 2012-June 2013

Total Design Fee
\$60,200.00

Construction Cost
\$349,000

Total Project Cost
\$463,075

Key Staff

EnviroScience- Prime
Julie Bingham
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RiverReach
Construction
Shannon Carneal
Greg Guello

GPD Group
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HARMON PROPERTY STREAM AND WETLAND RESTORATION

Aurora, Ohio



This design-build stream and wetland restoration enhanced 4.0 acres of wetland, created 2.53 acres of new wetland and raised stream bed elevations of two streams to reconnect 3,297 total feet of stream to its floodplain. This unnamed tributary in the headwaters of the Chagrin River watershed had been channelized in the past to drain adjacent agriculture properties, and had become entrenched.

The majority of the stream restoration was completed by using natural channel design to raise stream bed elevations with a mixture of cobble, sand and gravel. Existing stream pattern was maintained throughout most reaches and site appropriate riffle-pool sequences were designed and constructed. Existing wetlands were enhanced through a combination of increasing inundation frequency through stream restoration activities, and overseeding with a variety of native wetland species. New wetlands were created through grading activities, and were also seeded with native wetland species. Additionally, the riparian areas covering the floodplain and adjacent valley slopes were enhanced by removing European Buckthorn. Two weeks post-construction, the site withstood 3.5 inches of rainfall within just a few hours and exhibited no failures or adjustment.

Native plants were installed in fall 2013 to provide a foundation for ecological recovery in the newly restored wetlands, and to enhance and supplement the existing native flora within the riparian areas.