FAST FACTS
Location: World Park at Union Center, West Chester Township, Ohio

Project Implementers:
Butler County Water & Sewer Department and Ohio Department of Natural Resources

Amenities: habitat for birds; aquatic and wetland habitat for aquatic species

Completed: Fall 2002

PROJECT FEATURES
Restored natural meander pattern of stream

Incorporated a flood zone

Installed in-stream rock groins

Installed in-stream grade control to maintain slope and manage stream flow

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The Duke Realty Two-Stage Channel was constructed in a highly developed portion of West Chester Township. The channel runs through Work Park at Union Center, providing environmental service benefits such as reduced flooding and improved habitat to the surrounding area. This best management practice allows nutrients, pollutants, and sediment from surface runoff to be processed by the vegetation in the two-stage channel.

What is the Duke Realty Two-Stage Channel?
A two-stage channel is a stormwater best management practice that can help transport large flows of water with reduced erosion while also maintaining a more natural environment. By simply installing in-stream rock groins, the channel took shape and now acts as a more natural stream. The two-tier design that was formed provides a flood zone during high flows, slowing water down and allowing the natural environment to settle out nutrients and sediment.
PROJECT GOALS

Reduce flooding and erosion

Improve water quality and enhance habitat

Stabilize stream morphology

Create flood zone for high flow events

Before

After

One-stage channel vs. two-stage channel design, The Ohio State University

LOCATION

Project Partners

amec

BC water & sewer

Duke REALTY

Project Funder

World Park at Union Centre, along Meridian Way, West Chester, Ohio.