

CITY OF CLEVELAND

# Big Creek Watershed Stormwater Management Improvement

Cleveland, Ohio



*above and below: After restoration  
with insets of initial conditions*

The Big Creek Watershed is one of the most highly urbanized watersheds within Cuyahoga County and the entire Lake Erie Basin. Big

*A stable riparian corridor was created to restore a highly impacted urban stream system.*

Creek serves as a major tributary to the Cuyahoga River. Non-point and point source pollution, stormwater volume, infrastructure impacts, land use developments and practices, and daily activities have all impacted the Big Creek stream system.

A 1999-2000 stormwater management study analyzed the stormwater drainage capacity of the Chevrolet Branch subwatershed of Big Creek. As a result of this study, a multi-community, multi-agency project was developed that focused on three main watershed management components: road culvert/stream channel restoration, a diversion pipe, and a storage basin.

As part of a multidisciplinary team, Biohabitats prepared stream channel restoration designs for 4,500 lineal feet along Chevrolet Branch. The primary goals of the restoration were to stabilize channel banks, develop a riparian zone with native vegetation, and restore both the flow and sediment carrying capacity of the stream. The channel improvements were based on the application of natural channel design techniques within an urban context.

## SERVICES

Inventory & Assessments  
Design  
Permitting  
Construction Management  
Public Outreach

*conservation planning  
ecological restoration  
regenerative design*



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