

HOWARD COUNTY

Dorsey Hall Village Stream Restoration & Stormwater Outfall Retrofit

Howard County, Maryland



from top: Wetlands one year after construction; Restored tributary to Red Hill Branch

Founded in 1980, Dorsey's Search is one of ten villages comprising the planned community of Columbia, Maryland. The village quickly grew to a population of 7,500, and with that growth came significant development, including the Dorsey Hall Village Center, a community and retail hub. Stormwater from the Village Center and surrounding development had caused severe erosion in a tributary to Red Hill Branch which flows into the Little Patuxent River.

Working with the Howard County Department of Public Works' Stormwater

Decades of development stress are moderated through design and installation of regenerative restoration that improves and integrates with the existing forested floodplain.

Management Division, Biohabitats created a regenerative restoration design to stabilize the degrading stream and reconnect the stream to its floodplain. Allowing small storm flows to access the floodplain provides water quality treatment of stormwater from the Village Center. The restoration design involves the installation of cobble riffle structures in the channel which raise the stream bed back up to pre-disturbance levels. The raised riffles allow storm flows to spill onto the forested floodplain and create deeper pools in the channel which will be replete with large woody debris for native fish habitat.

The design also included water quality retrofit of four stormdrain outfalls which collect runoff from the

nearby townhouse community. Despite the short distance and steep grade of the land between the outfalls and the forested floodplain, Biohabitats was able to craft a design to laterally distribute stormwater into terraced, wetland cells which detain and infiltrate the first flush of runoff from parking areas, streets, sidewalks, and roofs.

In addition to improving water quality and stability, the restoration also replaces non-native trees and shrubs with native vegetation that will improve habitat in a densely populated suburban setting.

SERVICES

- Inventory & Assessments
- Design
- Permitting
- Construction Procurement
- Construction Management

*conservation planning
ecological restoration
regenerative design*



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