

Swansfield Trail Streambank Repair

Columbia, Maryland



from top: During construction;
Assessing initial conditions

The Swansfield Trail, which winds along a tributary to the Middle Patuxent River, is part of a network of nature trails that extends into Howard County, Maryland’s 1021-acre Middle Patuxent Environmental Area (MPEA). It is a popular hiking spot for MPEA visitors and residents of many adjacent communities. In recent years, stormwater from those communities and upstream development caused severe erosion along the tributary, which degraded the stream’s stability,

Collaborating with an on-call contractor to adapt to field conditions yields intended ecological benefits and still delivers project on budget despite unexpected infrastructure constraints.

habitat, and water quality and threatened to degrade the Swansfield Trail and adjacent sewer infrastructure.

The Howard County Stormwater Management division turned to Biohabitats for help in addressing the problem. After reviewing existing information, performing a field assessment, and assessing hydrologic and hydraulics, Biohabitats worked closely with the County and their construction contractor, Meadville Land Service, to craft a cost effective solution to protecting the infrastructure without compromising the stream habitat quality or function. Once construction started, the design approach had to be adapted on the fly

to match field conditions to accommodate the sewer that had an unexpected bend in the alignment. Consequently, the stream channel was realigned, existing boulders and coarse wood within the bed and banks were reconfigured along the new alignment to push flow away from the eroding bank and exposed sewer and to provide habitat and stability within the stream bed. Lastly, a floodplain bench was constructed to provide cover over the sewer and buttress the trail.

SERVICES

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