HOWARD COUNTY STORMWATER MANAGEMENT DIVISION

Patuxent River and Patapsco River Watershed Assessments

Howard County, Maryland

from top: Watershed assessment of Howard County's natural resources; Severly eroded initial conditions

Thorough watershed assessment helps Howard County, Maryland chart the course toward county-wide water quality improvement.

Howard County's Storm Water Management Division set an ambitious goal of performing comprehensive assessments of the County's watersheds over a two-year period to satisfy their NPDES Municipal Separate Storm Sewer System (MS4) Permit requirement. To tackle the daunting task that encompassed a 253-square-mile study area, Howard County turned to their team of on-call consultants. Working closely with the County and their other on-call engineering consultants, Biohabitats conducted stream assessments of the County's two watersheds: the Southern Middle Patuxent, and the Patapsco River South Branch. The goal of the assessments was to identify and prioritize opportunities to improve water quality through stream restoration, outfall stabilization, new stormwater Best Management Practices (BMP), tree planting, and BMP conversion projects. The assessments integrated elements of the Stream Corridor Assessment (SCA), Rapid Bioassessment Protocol (RBP), Bank Assessment for Non-point source Consequences of Sediment (BANCS), and Retrofit Reconnaissance Inventory (RRI) with other qualitative site data on the feasibility of a project including land ownership, constraints, and ease of access.

For the second phase of each watershed assessment, Biohabitats developed concepts for the highest priority proposed retrofit and restoration opportunities. The concepts, which included approaches such as channel stabilization, Regenerative Stormwater Conveyance (RSC), bioretention facilities, and tree plantings, were designed to provide ecological habitat and stormwater filtration while also helping the County estimate implementation costs and meet TMDL targets established for phosphorus and sediment in the local watersheds.

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