BALTIMORE COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY Jennifer Branch Stream Restoration

Carney, Maryland







from top: After restoration; During construction; Severely eroded banks and collapsing retaining walls before construction

U nder an oncall contract with the Baltimore County Department of Environmental Protection and Sustainability (DEPS), Biohabitats developed a stream restoration design for over 6,000 linear feet of Jennifer Branch, a tributary to Gunpowder Falls. Biohabitats was selected by Baltimore County to develop this design due to its complexity and This project reduces non-point sediment sources and provides 6,000 linear feet of stable aquatic and riparian habitat in a congested, suburban neighborhood.

numerous site constraints. The project combined two previous stream restoration projects for which preliminary design work had begun but was not completed.

Over several decades, Jennifer Branch had experienced bed degradation, bank erosion, straightening, encroachment, and severe flooding as a cumulative impact of development in the watershed. Much of the project was constrained by private properties, sheds, fences, utility poles, sanitary sewer lines, culverts and mature trees. The design drew from Biohabitats' extensive experience with urban streams to support DEPS's goals of stabilizing eroding banks, minimizing disturbance to private property, maintaining mature trees, increasing aquatic and riparian habitat,

and providing a natural and stable stream system.

Specific tasks included detailed fluvial geomorphic field analyses; hydrologic and hydraulic analyses; sediment transport analysis; ecological and vegetative assessments; development of concept design drawings and a design justification report; and preparation of design and construction drawings, specifications, and cost estimate. Other responsibilities included the preparation of regulatory permits, assisting DEPS with public meetings, and construction inspection.

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