

HOWARD COUNTY

# Savage Branch Environmental Site Design

Savage, Maryland



Clockwise from top: Bioretention basin filters stormwater; Children pump water along concrete flume; Repurposed library sidewalk, boulders from a local quarry, & native gardens form outdoor classroom

*Innovative stormwater management was the driver behind the transformation of a library's landscape into a thriving, ecologically functioning, and engaging space for learning.*

functioning, engaging space that enhances local ecology, beauty, and learning opportunities.

With input from County agencies and HCLS staff, Biohabitats crafted a design which distributes stormwater to multiple treatment points and uses natural, vegetated systems, porous paving, and cisterns to store runoff and filter pollutants from the water before it flows off site. These techniques, which mimic natural hydrologic conditions by retaining and slowly releasing runoff close to the source, not only clean polluted water, but help restore natural flow patterns.

The site's most unique feature is a multi-tiered "stormplanter," comprised of interconnected cells containing native wetland plants and lined with bench seating. The planter captures stormwater from the building's roof, filters it

through the wetland cells, and allows clean water to soak into the soil. A hand pump provides customers of all ages with the opportunity to draw filtered water from the planter and send it along a concrete flume reminiscent of the nearby historic Savage Mill.

The renovated landscape also includes native rain gardens, and porous pavers. Structural soils support the pavers while nourishing an urban tree canopy that shades the parking lot and plaza. By filtering and storing water through the soils and giving space for roots to grow, it is anticipated that the newly restored 30,000-square-foot canopy will survive for decades.

**SERVICES**

- Green Infrastructure Design
- Construction Management
- Public Outreach

When officials in Howard County, Maryland, a highly urbanized municipality located between Washington, DC and Baltimore, MD, planned to renovate the Howard County Library System's (HCLS) Savage Branch, they envisioned it as a model for best practices for stormwater treatment, and a place to support their Science, Technology,

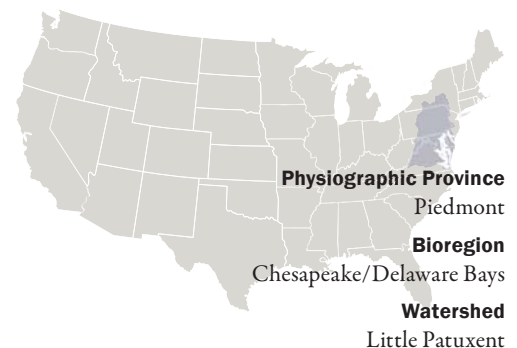
Engineering and Math (STEM) curriculum. For help in realizing this vision, they turned to Biohabitats.

Water from the site drains to a Use IV recreational trout stream, and ultimately, to the Chesapeake Bay. Through a design-build contract, Biohabitats transformed the branch's landscape from a concrete and asphalt-dominated site to a

*conservation planning  
ecological restoration  
regenerative design*



800.220.0919  
www.biohabitats.com



**Physiographic Province**  
Piedmont

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**Watershed**  
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