

# Columbia Stream and Upland Restoration

Columbia, Maryland



from top: Immediately after native trees are planted; Removal of invasive species

A 30-year master plan for the revitalization of Columbia, MD, a 16,450-acre planned community founded in the 1960s, strived to maintain the city's original focus on being socially responsible, environmentally friendly and financially successful. The plan established a goal to restore a healthy forest structure dominated by native tree species, but the city's two watersheds were both degraded by channelization and invasive species. Biohabitats developed and implemented the first two phases of restoration for both watersheds. This included 800 linear feet of stream restoration and the reforestation of over 20 acres of woodlands.

*A degraded, urban stream is restored and its smothering cover of invasive plants is replaced by a thriving native forest.*

As a first step to recreate a thriving natural forest system, Biohabitats developed a strategy to eradicate or control invasive species, reforest cleared areas with native trees and shrubs, and enhance the understory of existing forest stands. Biohabitats also created a design to stabilize an eroding tributary to the Little Patuxent River so that it could withstand a 100-year flow and provide fish passage and habitat upstream of Symphony Woods Road.

Biohabitats performed an existing conditions site assessment to determine and document the ecological communities and invasive species present. A multiphase approach for invasive species removal and replanting with native species was then developed, along with a three-year maintenance program to completely sever the foothold of invasive species. In order to

establish a strong native plant community that was resistant to invasive vegetation, Biohabitats used mechanical removal, stump treatment and Glyphosate to control invasives such as Russian olive, wild grape, and English ivy. After nearly a year of control, Biohabitats replanted 16 acres with suitable native vegetation. The planting plan included strategies to make the conditions less favorable for exotic pioneer species. These included augmenting the native species in the forest understory and creating a dense barrier of native evergreens at the forest edge to limit light penetration.

## SERVICES

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

conservation planning  
ecological restoration  
regenerative design



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