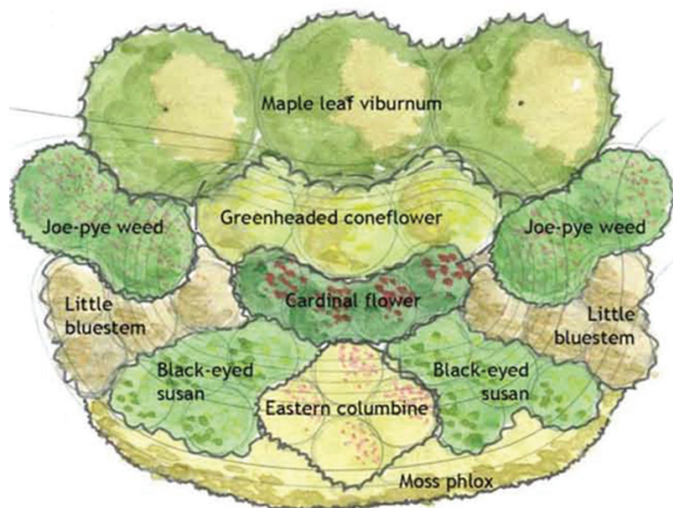


Montgomery County Rainscapes

Montgomery County, Maryland



Biohabitats provided assessment, guidance, and design services to support the Montgomery County, MD Rainscapes program for innovative stormwater management in residential areas. The study aided efforts by the Montgomery County Department of Environmental Protection (DEP) to engage and gain voluntary participation of local residents to implement on-lot natural drainage practices.

Biohabitats supported Montgomery County's efforts to achieve widespread implementation of natural drainage practices such as rain gardens and permeable paving systems in residential neighborhoods to improve water quality and stream health.

The work targeted four neighborhoods in the Rock Creek watershed that were selected by DEP. Biohabitats assessed opportunities for stormwater runoff volume and pollutant load reduction through the use of natural drainage projects such as rain gardens, downspout disconnection, and permeable pavement.

Biohabitats conducted desktop analyses and rapid but thorough field investigations to identify problem sites and opportunities for restoration projects in both residential lots and County-owned right-of-way properties. The team identified two small drainage areas for a paired subwatershed study to measure the effectiveness of wide-scale neighborhood retrofits. We modeled several implementation scenarios to estimate

changes in water quality and hydrologic performance.

From these models, we developed standard designs for permeable pavement and rain gardens on residential lots, targeting both contractors and homeowners. Guidance included typical details, planting plans, construction, maintenance, and cost. Implementation plans for each target neighborhood will be developed and presented at public meetings and workshops. Future phases of the project will include development of 30% concept plans for multi-lot and right-of-way project sites.

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