HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Howard County Green Infrastructure Planning Support

Howard County, Maryland





From top: Motion-activated game camera captures deer close to a road crossing; a red fox (Vulpes vulpes) passes through a culvert during site monitoring.

In 2012 Howard County established the Green Infrastructure Network Plan (GI Plan) to improve the quality of life of their citizens and to protect, enhance, and restore natural areas throughout the county. The plan maps out the most ecologically significant natural areas (hubs) and the critical connections between them (corridors).

As the ecological consultant, Biohabitats was chosen to work alongside the Department of Planning and Zoning's Resource Conservation Division (RCD) as they assessed the role of hubs in the network and the possibility of success for each corridor. Working with RCD, Biohabitats created customized rapid assessment protocols to quickly identify basic habitat Understanding the condition and connectivity of ecologically significant natural areas across an entire county informs future zoning decisions and sustainable development.

requirements, which were then used to create a comprehensive habitat plan. This work also provided RCD with a standard sampling system and a template for future management plans.

Biohabitats then identified corridor breaks based on site context, vegetation, land use changes, and disturbances. This screening also highlighted threats, stressors, impediments, and opportunities for wildlife crossing. Biohabitats used this information, along with landscape context, for 11 different corridors to determine which should be kept, dropped, or relocated.

Wildlife monitoring was used to assess the permeability of road crossings to wildlife. Using motion activated game cameras at road crossings, Biohabitats was able to document occurrences of wildlife within rights of way, crossing under bridges, and passing through culverts. Four sites were monitored, and the study showed a daily use of the culverts that scored poorly in the corridor break assessment. The county continued monitoring and the results of this study were used to inform design guidance for county roadways.

Overall, the GI Plan provides a means of defining, protecting, and enhancing greenspace through conscious land use planning. It is a mechanism for considering important natural resources when preparing transportation and watershed plans, making zoning and development decisions, acquiring land for parks and public facilities, and obtaining agricultural, environmental, and other land preservation easements.

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