

Executive Summary

Green Infrastructure is a network of interconnected waterways, wetlands, forests, meadows and other natural areas. Green Infrastructure helps support native plant and animal species, maintain natural ecological processes, sustain air and water resources, and contribute to the health and quality of life for communities.

Typically, the basic building blocks of a green infrastructure network are hubs and corridors.

- **Hubs** anchor green infrastructure networks and are large, ecologically significant natural areas that provide habitat for wildlife. They may include protected areas, such as State and County parks that are managed for natural values; and private lands where natural features and ecological processes are protected and/or restored. Large contiguous blocks of interior forest (forest found at least 300 feet from the forest edge) and large wetland complexes are an essential component of hubs.
- **Corridors** are linear features that tie hubs together. They may include: rivers and streams, narrow sections of forest, and other upland areas that serve as biological conduits for plants and wildlife.

The purpose of Howard County's Green Infrastructure Network Plan (GI Plan) is to define, protect and enhance a green infrastructure network that includes and links the most ecologically significant natural areas in Howard County. The GI Plan will enable planners to consider important natural resources when:

- Preparing the General Plan, the Land Preservation, Recreation and Parks Plan, transportation plans, watershed management plans, and community plans
- Making decisions about zoning and development proposals
- Acquiring land for parks and public facilities
- Obtaining agricultural, environmental and other land preservation easements

The GI Plan offers a comprehensive approach to land and water conservation that also takes into account the County's development plans.

The Howard County GI Plan refines and expands on statewide planning efforts by the Maryland Department of Natural Resources (DNR) to define Maryland's Green Infrastructure, adapting the state methodology to County-scale analysis and planning priorities. The basic criteria for mapping hubs in the Howard County network were to include the following:

- Interior forests of 50 acres and larger, with a 300-foot buffer
- Wetlands of 25 acres and larger, with a 100-foot buffer
- County and State parkland and open space that contain these interior forest and wetland resources
- Forest, parkland and open space adjacent to these interior forest and wetland resources

The Howard County Green Infrastructure Network contains 51 hubs. The hubs contain approximately 22,148 acres or 14% of the total County area, and range in size from 25 to 2,407 acres. The smallest hub is located along the Patapsco River in Elkridge and the largest is located along the upper Patuxent River between MD 97 and MD 94. The hubs include major State and County parks, the Washington Suburban Sanitary Commission reservoirs, Columbia Association properties such as Lake Elkhorn and Lake Kittamaqundi, and privately owned forests and wetlands. Approximately 76% of the land in the hubs is protected in parkland or open space, and 11% is under an agricultural, environmental or historic

easement. The remaining 13% of the land is in a variety of uses and approximately 6% is uncommitted, which is land that still has development potential based on current zoning.

The Green Infrastructure Network defined two minimum corridor widths of 300 and 500 feet, with extensions to include adjacent floodplain, wetlands, parkland and open space. The 500-foot corridor width is the preferred option for the network. However, there are areas within the network where the 300-foot corridor width may be more appropriate. An example would be an upland corridor that crosses actively farmed land, where the farmer prefers to minimize land taken out of production.

There are 48 corridor connections in the network. The 500-foot corridor system contains approximately 6,173 acres or 4% of the total County area. Approximately 26% of this system is protected in parkland or open space, and 26% is under an agricultural or environmental easement. The remaining 48% of the land is in a variety of uses and approximately 11% is uncommitted.

Corridors generally follow rivers and streams. All of the major streams in the County have a combination of hubs and corridors, except for Deep Run, which has only a few hubs along the Anne Arundel County border. Upland corridor connections across watersheds were the most difficult to find, because ridge lines between watersheds are often prime locations for roads and related development, which block safe passage for wildlife. All of the cross watershed corridors are considered potential corridors due to problematic street crossings, the proximity of nearby development and/or concerns about the best path to take when crossing agricultural land. There are 13 corridors that are considered potential connections. Potential corridors need site visits and coordination with property owners to confirm their viability.

The Green Infrastructure Network contains a mosaic of land uses – parkland, open space, farms, residential lots, commercial properties, institutional properties, and properties with historic, environmental or agricultural easements. Protecting and enhancing the network will require efforts from both public and private landowners. Potential tools that could be used to protect and enhance the network include stewardship, financial incentives, regulatory protections, easements and acquisition. These tools can be used individually or in combination. The County should develop a management plan for each hub and corridor that provides an assessment of current habitat conditions and identifies the most appropriate habitat protection and enhancement measures. The management plans should be updated periodically.

The GI Plan contains goals, objectives and prioritized implementation actions to guide efforts to help protect and enhance the network. Indicators will be monitored to measure the success of these actions, so that improvements can be made in implementation. The results of these monitoring efforts will be presented in an Indicators Report that will be prepared each time the network map is updated. The network map will be updated approximately every three years, coinciding with updates of County aerial photography.

Information on the Howard County Green Infrastructure Network Plan, as well as an interactive map, can be found on Green Central Station at:

<http://livegreenhoward.com/land/green-infrastructure/>