



Growing a Healthier DC: Greening Our City



A future DC is green

A restored Anacostia River, revitalized waterfront and an explosion of green development are earning the District a new environmental reputation. The Fort Circle Parks form an “emerald necklace” of neighborhood-connecting trails and green space. Majestic trees shade and beautify parks, streets, yards and homes. Gardens and green roofs are sprouting everywhere. Residents and visitors recreate and relax in green spaces; children play and learn outdoors. And DC has become home to innovative green businesses and industries, providing quality new jobs for residents.



A green DC

- Benefits from the greatest tree canopy of any major city in the world
- Has much improved air and water quality
- Maximizes the beauty and utility of spaces like rooftops, medians and parking lots
- Offers a variety of spaces for outdoor gathering, learning, recreation and relaxation
- Provides habitat for birds and other wildlife through interconnected natural areas
- Attracts residents and businesses seeking a high quality of life
- Is a world-class sustainable city

The benefits
of green grow
over time.



The city as a green environment

Cooler temperatures. Summer temperatures in DC can be 10-15° hotter than surrounding areas due to the heat trapped by paved surfaces and buildings. Cooling provided by abundant shade trees and vegetation helps reduce this “urban heat island” effect.

Curbing climate change. Shade trees reduce energy demand for air conditioning which leads to fewer greenhouse gases. Vegetation also directly removes carbon dioxide from the air. DC’s trees alone store 526,000 tons of carbon and remove an additional 16,000 tons of carbon from the atmosphere annually.¹

A livable city. People value trees, parks and open space. Individuals and businesses increasingly choose to locate in communities with beautiful neighborhoods, ample recreation opportunities and high environmental quality.² Not surprisingly, these characteristics are also linked to positive mental and physical health.³





The District's 1.9 million trees have been valued at \$3.6 billion.

The Challenge and Opportunity

Washington, DC is home to nearly 600,000 residents, the center of a thriving metropolitan region and host to more than 20 million visitors annually. The city has wide tree-lined streets, large preserves of natural lands and over 20 miles of waterfront. However, the nation's capital is not immune to challenges facing many urban areas: polluted waterways, an aging sewer system, air quality that fails to meet federal standards and the uneven distribution of environmental amenities.

Green infrastructure is now recognized as a cost-effective part of the solution to these challenges. Trees and vegetation are environmental multi-taskers - they help manage stormwater, cool their surroundings and purify the air, all while beautifying streets, yards and neighborhoods. Between land redevelopment and road projects, water and sewer upgrades, school modernization and improvements made by individual property owners, the District is in fact rebuilding itself. By growing green, Washington, DC can transform itself into a world-class sustainable city to benefit all residents and serve as a model for the nation.

Recommendations

- Set an Urban Tree Canopy goal for the District and implement a plan to achieve it.
- Ensure sustainable development and protection of natural areas on large tracts of land like Poplar Point, the McMillan Reservoir and St. Elizabeth's campus.
- Protect and enhance natural systems by restoring wetlands, removing invasive species, planting streamside buffers and daylighting streams.
- Develop and implement comprehensive policies to clean up the Anacostia River, prioritizing green infrastructure solutions wherever possible.
- Dedicate funding and expertise to the comprehensive monitoring, management and maintenance of the District's green infrastructure.

Over 3000 acres in DC have potential for redevelopment or reuse in the next 20 years.

¹ *Assessing Urban Forest Effects and Values: Washington, D.C.'s Urban Forest* USDA Forest Service Northern Research Station, Sept 2006.

² *Competing in the Age of Talent: Quality of Place and the New Economy* by Richard Florida, Jan 2000.

³ *The Impact of Community Design and Land Use Choices on Public Health: A Scientific Research Agenda* by Andrew L. Dannenberg, Richard J. Jackson, Howard Frumkin, Richard A. Schieber, Michael Pratt, Chris Kochitzky, and Hugh H. Tilson, *American Journal of Public Health* 93(9), Sept 2003.

Greening Our City is one in a series of issue briefs from Casey Trees. The *Growing a Healthier DC* series is a product of conversations with a panel of national and local experts convened in cooperation with District agencies, organizations and foundations. The panel examined how green infrastructure could be used to maximize social, economic and ecological benefits in the District of Columbia.

Visit www.caseytrees.org for more information on the topic addressed in this brief or the complete series:

- Green City
- Green Neighborhoods
- Green Streets
- Green Parks and Open Space
- Green Schools
- Green Business Districts
- Green Parking Lots
- Green Residences
- Green Jobs