

# About Washington's Parks and Open Space

## A Brief History

For more than 200 years, parks and open space have played an important role in the social, economic, and environmental health of Washington. This chapter provides an overview of the history of Washington's parks and open space, describes why they are important to the development and well-being of the city, and discusses key challenges faced by Washington's parks and open space.

## Park and Open Space Development in Washington

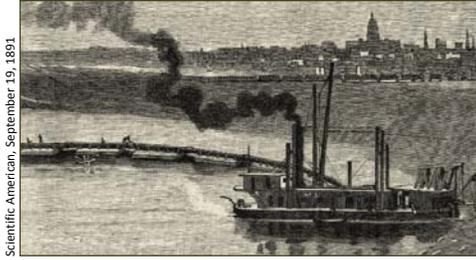
Parks and open space have been an integral component in Washington's development since its inception. While sites such as the National Mall are the most widely recognized park components of the city's major plans, the location, design, and development of parks and open spaces throughout the city also have a rich and diverse history. This history is a story of collaboration between federal and local governments and Washington's many neighborhoods to address both national and local interests.

The historic plan of Washington, designed by Charles Pierre L'Enfant in 1791 and revised and completed by Andrew Ellicott, established the foundation of Washington's system of parks and open space. Influenced by the designs of cities such as Paris and Versailles, the plan capitalized on the area's natural features and retained open space as settings for important monuments, grand public promenades, and major federal buildings. The ridgeline sweeping around the low-lying land and adjacent rivers became a natural boundary for the new capital, and provided a continuous green and blue visual terminus for the plan's grand tree-lined avenues. Squares and circles spaced throughout the city link neighborhoods visually and physically. L'Enfant located ceremonial parks and greenswards in the center of the city to frame planned monumental buildings.

Today, the L'Enfant Plan's concepts are well-preserved. In Washington's Center City, the planned public spaces are settings for national commemorative works and provide open space for residents, workers, and visitors. Little of the L'Enfant Plan was implemented until after the Civil



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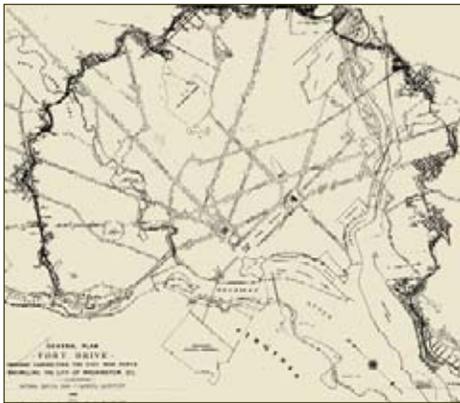
Scientific American, September 19, 1891

East Potomac Park and the Tidal Basin were created as part of the U.S. Army Corps of Engineers dredging of the rivers.

War, when Washington experienced significant population growth. During that time, the U.S. Army Corps of Engineers' Office of Public Buildings and Grounds embarked on the systematic construction of the roads and open spaces envisioned in the plan. In 1871, Congress created a new municipal government headed by the Commissioners of the District of Columbia, which continued work with the Corps on infrastructure improvements, including parks.

In the late 19th century, as Washington grew beyond the historic city, new residential subdivisions often included features of the L'Enfant Plan such as circles, small pocket parks, and street grid layout. This pattern became more formalized through the application of the Permanent System of Highways Plan, which identified where streets and open space should be located in future subdivisions. The legacy of these plans include the circles located at the city's boundary, such as the Westmoreland, Chevy Chase, Tenley, and Randle Circles.

During this time, two large open spaces were reserved for the National Zoo and the Naval Observatory. East Potomac Park and the Tidal Basin were created when the Corps dredged the Potomac and Anacostia Rivers; and in 1890, Congress created Rock Creek Park, which remains one of the largest natural urban parks in the United States.



The McMillan Plan recognized the opportunities presented by the old Civil War defenses ringing the city along the escarpment. These sites, linked by green corridors, were envisioned as a parkway known as Fort Circle Drive.

In 1901, Congress directed the McMillan Commission to develop a new plan for the city, responding to interest in reviving the L'Enfant Plan's framework to better manage growth in the nation's capital. The Commission was influenced by a national interest in the "City Beautiful" movement, which focused on providing open space to relieve dense and polluted urban conditions of the time. Once approved, the McMillan Plan restored and expanded the open spaces and parks introduced by L'Enfant as leading elements in the city's federal identity.

While the National Mall in its current form is the most famous legacy of the McMillan Plan, the plan's important contributions extend throughout the city. The McMillan Plan proposed a linked system of public parks and open spaces to ensure access to green space for residents throughout the city. The McMillan Plan designated the Glover-Archbald Parkway (never developed as a parkway but currently retained as a park), the Anacostia Waterfront Park, and numerous smaller parks, such as Meridian Hill. In particular, the McMillan Plan recognized the opportunities presented by the old Civil War defenses ringing the city along the escarpment. These sites, linked by green corridors, were envisioned as a parkway referred to as the Fort Circle Drive. Although the drive was never completed, the importance of the historic fort earthworks and the green belt of parks make today's Fort Circle Parks a significant open space element in the nation's capital.

During the 1920s, some of the open spaces provided in the L'Enfant Plan were vacant, underused, and in danger of being eliminated to either better

accommodate the automobile or provide space for additional housing. At the same time, the need for recreation and open space in urban areas was increasingly recognized. The National Capital Parks and Planning Commission (NCPC's predecessor) recommended, through what is known as the Eliot Plan, the creation of approximately 20 neighborhood parks throughout the city. In addition to open space, these parks would include recreation centers, libraries, and schools, and were planned to serve neighborhoods within a one-quarter-mile radius. However, only three were constructed before the Great Depression: Banneker Recreation Center, Eckington Center, and McKinley Center. The creation of similar parks continued during or after the Great Depression with the construction of the Wilson, Coolidge, Taft, and Springarn-Phelps Schools. The concept of combining recreation and education facilities on one site continued into the 1970s, and its popularity is again on the rise.

Multiple federal and local agencies were responsible for providing recreation for residents during the early and mid-20th century. These included the Board of Education, library trustees, and the Office of Public Buildings and Public Parks of the National Capital, which was absorbed in 1933 by the newly designated Office of National Parks, Buildings and Reservations (the predecessor of the National Park Service).

In 1930, the Capper-Cramton Act provided the National Capital Park and Planning Commission with significant funding for major regional parkways and parks, such as the Baltimore-Washington Parkway. Also in 1930, the Shipstead-Luce Act gave review powers to the U.S. Commission of Fine Arts for development adjacent to many significant public parks and buildings, which has influenced the aesthetics and design intent for public open space throughout Washington. The New Deal, a public works program designed to alleviate poverty and stimulate recovery during the Great Depression, funded rehabilitation work on the National Mall, and resulted in other park improvements, particularly the construction and rehabilitation of monuments.

World War II brought a building boom to Washington. The war effort required thousands of new government employees, who often worked in temporary structures constructed on vacant land and open space in Washington. Most permanent growth, however, occurred on the outskirts of the city, and continued in the post-war decades. The *Comprehensive Plan of 1950* refocused planning and urban renewal efforts into the city, and included the creation of additional parks with reference to the McMillan Plan.

While significant public housing projects were constructed in the city, open space was not comprehensively planned during this time. Sometimes these projects were characterized by large-scale redevelopment with significant park and open-space resources accessible to the public; other times, projects involved open space and recreational amenities available only to residents. New types of residential and commercial buildings, and federal office spaces, also began to provide publicly accessible open spaces as amenities, although these spaces tended to be smaller parks and plazas.



McMillan Plan, 1901



Library of Congress

Triangular reservations formed by the intersection of streets, such as at New York Avenue, O, and First Streets, NE, were typically adorned with a cast-iron post and chain fence. The reservations were not intended for recreational use but for street beautification.



Library of Congress

World War I required thousands of new government employees, who often worked in temporary structures constructed on vacant land and open space in Washington.



The C&O Canal was designated a National Historic Park in 1971, and is now managed by the National Park Service.

In recognition of the emerging economic and social significance of Washington's suburbs, the 1960s saw a focus on regional planning. As part of this focus, several studies touched upon the importance of the city's monumental core, such as the *Year 2000 Policies Plan* of 1961 and the *Washington Skyline Study*. The *Year 2000 Policies Plan* re-established the Special Streets and Special Places from the L'Enfant Plan, recognizing the timelessness of the original plan and attempting to preserve and better integrate L'Enfant Plan elements into the fabric of the city.

Toward the end of the 1960s, the importance of environmental planning was increasingly recognized. Many of the parks identified by the L'Enfant and McMillan Plans were located along stream valleys, steep slopes, and rivers, and came to be recognized as important natural resource areas. Increased awareness of the environment and community health began to influence plans for both new and existing parks, and these topics continued to shape a sustainable future for the city. The 1967 Comprehensive Plan incorporated social, economic, and natural elements into neighborhood planning efforts. In addition, increased awareness about historic preservation began to influence how parks were used and rehabilitated.

When the Home Rule Act of 1973 established self-governance for the District of Columbia, some public land was transferred from the federal government to the District. Sometimes, these transfers were of ownership; more commonly, they were transfers of jurisdiction, which retained federal ownership but allowed the District to use the sites for specific purposes, such as parks and recreation, education, or transportation. While some NPS land was transferred, the agency retained parks and lands deemed to be nationally significant. Today, the NPS is responsible for the greatest amount of park space in Washington.

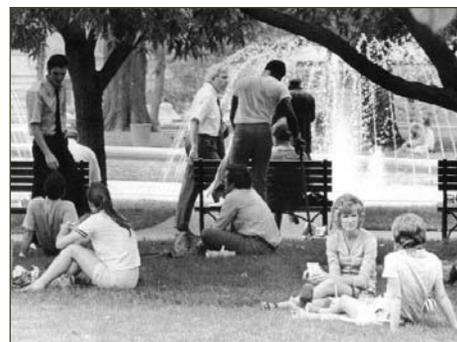
Many of the properties transferred to the District were recreational facilities or open spaces associated with schools or streets. Recreational centers, fields, and schoolyards are major components of the District's parks and open-space portfolio. These sites are managed by several different District agencies, reflecting changing administrative structures and responsibilities. In the early 2000s, several new parks were planned as part of larger redevelopment proposals sponsored through the District of Columbia, often in coordination with federal or private partners. These include sites along the Anacostia River and at the old Convention Center site, and projects such as Canal and Diamond Teague Parks in southeast Washington.

The L'Enfant Plan, the McMillan Plan, and subsequent planning efforts provided a system of parks and open space that became the foundation of the city's unique urban design and an integral part of the day-to-day life of residents, workers, and visitors. There is no better way to celebrate the ingenuity and vision of those who built the park system over the last 200 years than to take substantive actions to achieve the full potential of this invaluable resource and preserve it for future generations.



Library of Congress

The riots of 1968 brought the importance of Washington's neighborhoods and residents to the forefront of city planning, including the need for recreation and open space for all residents.



Star Collection, DC Public Library, © Washington Post

Lafayette Park in the 1970s

## Benefits of Parks and Open Space

*"Leave all the afternoon for exercise and recreation, which are as necessary as reading. I will rather say more necessary because health is worth more than learning."*

*Thomas Jefferson*



Even small gardens, such as this park next to the Smithsonian Museum of Natural History at 9th Street, NW, serve as oases where urban noise is blocked out by trees and thick vegetation.

The CapitalSpace partners share a vision of Washington as a more sustainable, livable, and beautiful city. Washington's parks and open space are a critical element of that vision. They can uniquely foster the development of inclusive, connected, and engaged communities, an important building block for any city. The improvement of Washington's park system offers a dynamic opportunity to explore new approaches to sustainable living and growth and to plan for the green jobs of tomorrow. The reasons for the importance of Washington's parks and open space are as diverse and numerous as the parks themselves.

The health of parks and open space has a direct and meaningful impact on citizens' well-being. Much research and deliberation has gone into how public health is affected by the natural environment. The lesson is three-fold: first, parks and open space can help mitigate environmental impacts created by the built environment through sustainable design practices. Second, parks and open space can help improve the physical and emotional health of residents, workers, and visitors. Finally, parks provide economic benefits and support the local economy in many ways, including increasing property values and providing green jobs for the community. Below are some examples of how parks and open space benefit Washington.

### Washington's Parks Protect Environmental Health

#### *Improve air quality*

While environmental laws helped to improve air quality, pollutants continue to contribute to health problems such as asthma and cardiovascular disease, which pose serious health risks for workers and residents. According to statistics, approximately 10 percent of children in the District suffer from asthma.<sup>1</sup>

Fortunately, Washington's green space removes pollutants from the air that contribute to the greenhouse effect and smog. Using the sun's energy, trees and plants also absorb carbon dioxide and convert it to fresh oxygen.

#### *Improve water quality*

As rainfall in Washington runs along roads and parking lots, it collects pollutants on the ground such as metals, pesticides, nutrients, sediment, and bacteria. Many of these pollutants flow into Washington's waterways and degrade the water quality. An even larger issue is the storm water runoff from the segment of Washington served by the combined sewer system. During periods of significant rainfall, the capacity of the combined sewer is exceeded and the excess flow, a mixture of storm water and raw sewage, is discharged directly into Rock Creek and the Anacostia and Potomac Rivers. During the summer, the water heats up considerably as it flows over hot asphalt surfaces. This can increase the temperature of the streams and waterways it enters, killing fish and other organisms.

1. District of Columbia Department of Health, "Burden of Asthma in the District of Columbia," 2009

Fortunately, open space can reduce the amount of runoff and lower pollutants in stormwater. The tree canopy can intercept 30-100 percent of the rainfall from small storms. Unpaved, vegetated areas such as a neighborhood park can slow the water's flow toward the sewer. This can reduce soil erosion, reduce water flow into Washington's waterways, and filter pollutants. Constructing additional storm sewers, spillways, and water filtering systems can be much more costly than using parks and open space to reduce water pollution.

## Washington's Parks Promote Personal Health

### *Provide places for exercise and physical activity*

One critical factor affecting health and quality of life nationwide is the amount of exercise children and adults engage in on a regular basis. A growing obesity epidemic affects millions of Americans; the District has an obesity rate of 35 percent for children between the ages of 10 and 17, ranking it 9th for childhood obesity among the states.<sup>2</sup>

Regular exercise and physical activity, even in moderate amounts, provide terrific health benefits and lower adult mortality rates. For children and adolescents, regular physical activity is important for normal growth and development and can help prevent or manage a variety of diseases, such as diabetes.

A critical factor in increasing physical activity is improved community access to parks and open space. If people have easy access to trails, parks, and other open space, they are more likely to engage in physical activity that can positively shape their health.

### *Provide places of respite and places to socialize*

Washington's parks and open spaces, especially in dense, urban areas, provide not only places for recreation and play, but also places to relax and socialize. Parks and open space function as ecological mufflers to the everyday noise of urban life, making them excellent spots to unwind alone or to spend time with family and friends. Natural landscapes can help mitigate the stress and fatigue of everyday life. Activities such as tilling community gardens, planting new trees, and greening the landscape not only contribute to environmental health, but can help individuals overcome everyday stress and develop community pride. With active community participation, public programs for these activities are relatively inexpensive and easy to implement.

If well-used and maintained, community gathering places can make neighborhoods safer through open access to positive activities for children and adults. However, parks in disrepair may discourage community use and attract inappropriate or illegal activities. Through community-building efforts, neighbors can develop 'ownership' of the park and turn parks into the heart of a neighborhood.



DC Department of Parks and Recreation

Well-maintained neighborhood parks such as this playground at North Michigan Park, are conducive for outdoor play. When parks are used heavily by people in the community, they are also perceived to be safer.



Dupont Circle

2. Levy, J, et al, "F as in Fat 2009," The Robert Wood Johnson Foundation, July 2009.

### *Increase community environmental awareness*

Parks provide opportunities for people to learn about the natural environment and become active participants in the physical world. A diversity of activities from planting trees to hiking can help integrate parks into everyday life. Many local programs on environmental science and urban ecology are provided by government agencies such as the National Park Service and the District Department of the Environment, and by local non-profit organizations such as Casey Trees.

Community gardens are a growing component of park systems nationwide, and the District is a part of the trend. By locating gardens throughout a city, residents are able to reduce their carbon footprint and grow their own produce, which is often difficult to find in urban areas. When linked with school curricula, the space turns into a new classroom to integrate math, history, and science programs into the outdoors. Other educational programming can teach children and adults about healthier eating habits, urban agriculture, and can encourage entrepreneurship through the sale of produce at local farmers' markets. Food grown in the gardens can also be donated to local shelters and food banks to help provide healthy meals to those in need. For example, the Capital Area Food Bank now teams up with local farmers and gardeners to distribute fresh produce to underserved communities.

### *Washington's Parks Support the Local Economy*

#### *Foster development of green jobs, technology, and practices*

America's green economy is growing. In 2009, the American Recovery and Reinvestment Act included more than \$80 billion in clean energy investments to jump-start America's economy and build the clean energy jobs for tomorrow's workforce. The General Services Administration is

Community children are drawn to the water spray feature at Friendship Recreation Center.



planning a number of construction and modernization projects in the District. Many of these include greening measures, such as the incorporation of more efficient materials to reduce energy consumption. In 2009, the District Department of Transportation's Urban Forestry Administration was awarded nearly \$2.8 million in federal funding to create green jobs in the District and improve the health of the city's urban tree canopy. The District Department of the Environment provides educational opportunities, such as the Green Jobs Expo, to District's residents and leaders to prepare the city's workforce for this new economy. Youth-focused programs are also available. For example, DDOE works closely with other District agencies and the Mayor's Office to coordinate the Summer Youth Employment Program, which focuses on a variety of subjects including a sustainable design and maintenance program.

### *Reduce energy consumption*

Just as trees provide cool respite for people on a hot summer day, strategically placed trees and other vegetation can reduce energy consumption by shading a building's windows and exterior walls. Conversely, in the winter, leafless trees allow the sun's radiant heat to warm the building. These measures are good for the environment and are good for business because they reduce energy bills.

### *Increase adjacent property values and support nearby businesses*

Parks increase the value of nearby private property. Market research has shown that parks and open space increase the appraised property values of adjacent residential property approximately 8 to 20 percent above comparable properties.<sup>3</sup> An increase in property value is not only beneficial to the owner, but also to the community because the added value is capitalized when property and real estate taxes are collected.

3. Crompton, J.L. "Parks and Economic Development." Chicago (IL): American Planning Association. PAS Report No. 502, 2001.



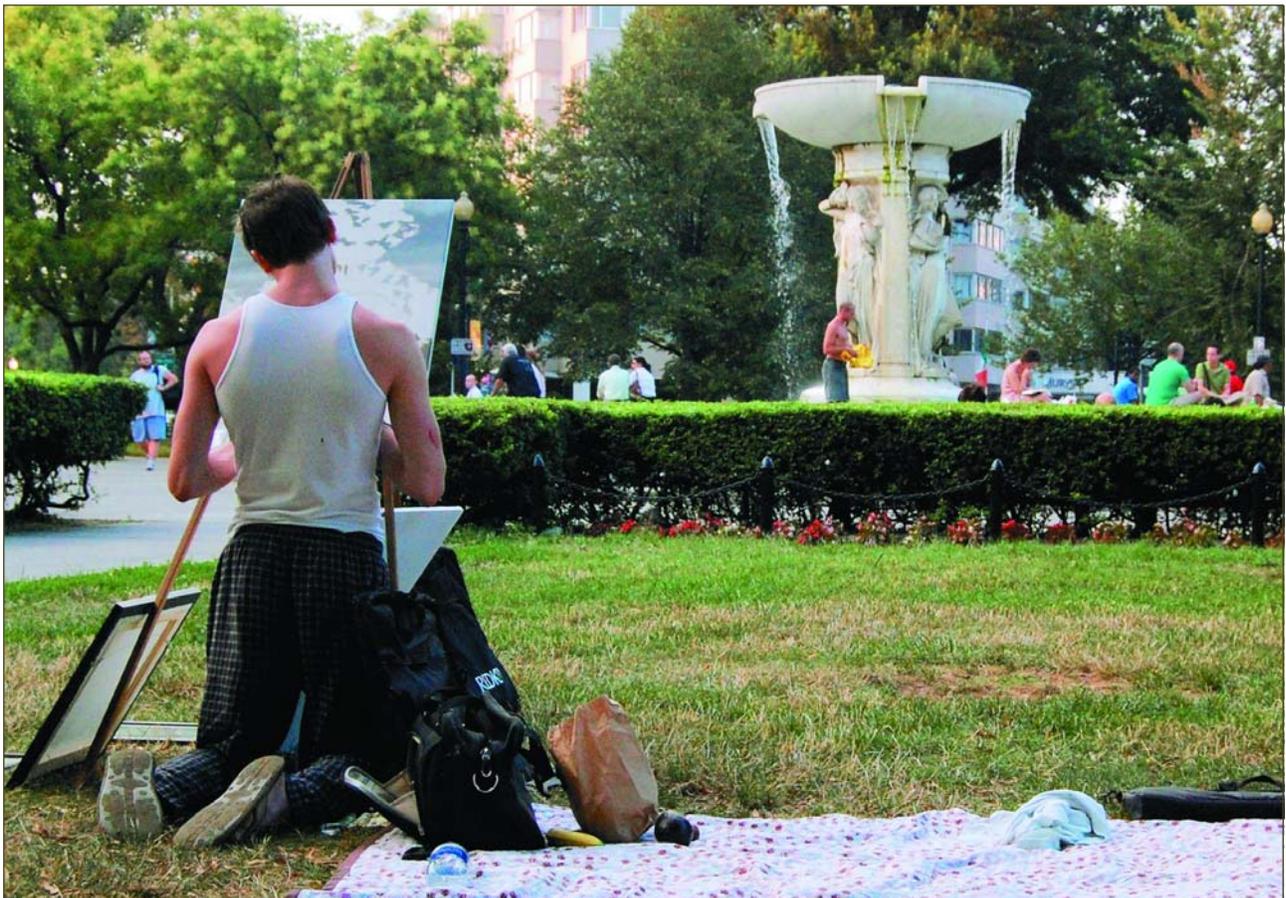
Meridian Hill Park's cascading fountain

### *Provide value to local tourism*

Many of Washington's historic parks and outdoor cultural amenities provide value as tourist attractions, contributing to local business and economic development. In 2007, tourist spending in Washington surpassed \$5.5 billion,<sup>4</sup> and tourists enjoy visiting the city for its historic buildings, cultural resources, national parks and monuments, and scenic views and vistas. Tourism in Washington is broader than the National Mall and its environs, and some of the lesser known parks and open space have also become attractions.

### *Attract new businesses and residents*

Parks and open space enhance the quality of life in urban areas and attract tax-paying businesses and residents. Unlike in the industrial past, service-sector businesses and their employees are no longer tied to locating in industrial centers. Consequently, businesses, and the professionals they attract as their workforce, are free to locate in communities that they find desirable. The availability of parks and open space in Washington can help attract businesses and new residents, boosting the tax base and supporting a healthy local economy.



Flickr photo courtesy of "MVR"

Parks such as Dupont Circle help to define a neighborhood.

4. Destination D.C. <http://washington.org/planning/about-destination-dc> (Retrieved April 1, 2010)

## Challenges and Opportunities

Washington's parks and open spaces are defining and well-loved features of the city. Almost one quarter of the city's land area is devoted to park and open space resources. There are 7,617 acres of parks, with one of the highest per capita ratios of any city in the United States, at 12.9 acres of park per 1,000 residents. Looking at the numbers alone, Washington compares well to other cities. This section will go beyond these basic numbers and look at the unique attributes of Washington's park system and the complex demands placed on these resources to better understand the challenges and opportunities parks face.

How can the partner agencies achieve the potential of Washington's parks and open space? It is important to plan for the park system recognizing the unique context in which it functions—as part of a vibrant urban experience, as a nationally important resource worthy of conservation, and as an integral component of the nation's capital. But there are clear challenges presented by complex jurisdictional responsibilities, the limitations created by size, distribution, and barriers to access, and the need to better maintain park assets with limited resources. Demand for Washington's parks is growing and changing, and it is important to balance many different park user needs while protecting sensitive, valuable resources within the parks.

Viewed from a different perspective, these same issues represent opportunities for more effective coordination and partnerships; to improve the quality and capacity of parks and begin to think of them as a connected system; to provide better public access, both physically and through better information; and to fully celebrate their cultural, historical, and environmental resources even as they become part of a shared commitment to a healthier, more sustainable and inclusive city.

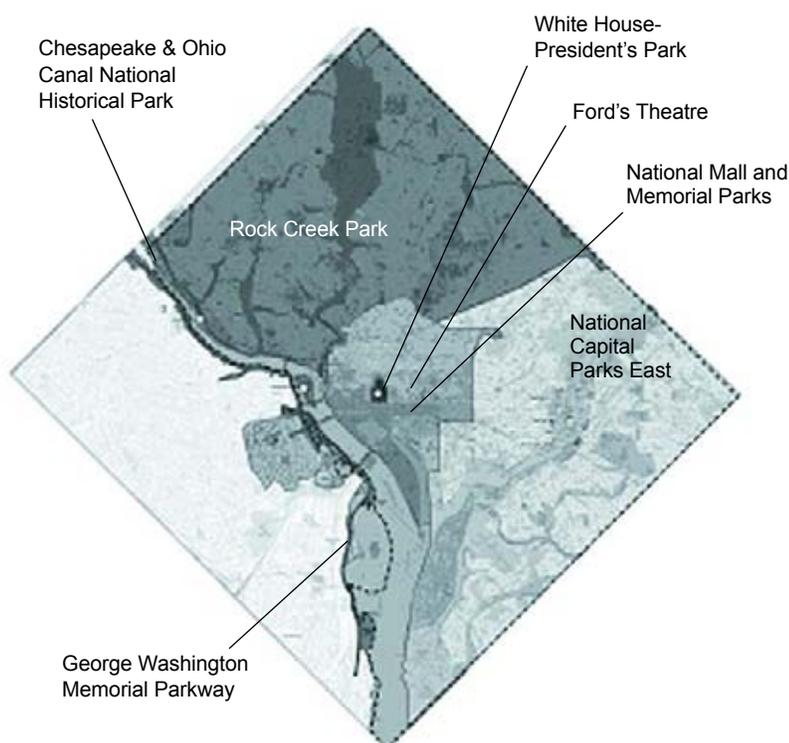
### Ownership and Management

Throughout most of the city's history, Washington's parks and open spaces were planned, acquired, and developed largely by the federal government through a number of agencies. Ninety percent of Washington's parks are under the jurisdiction of the National Park Service (NPS), and the ownership, management, planning, and maintenance of the remaining parks and open spaces rest with a number of other federal and District agencies.

### National Park Service

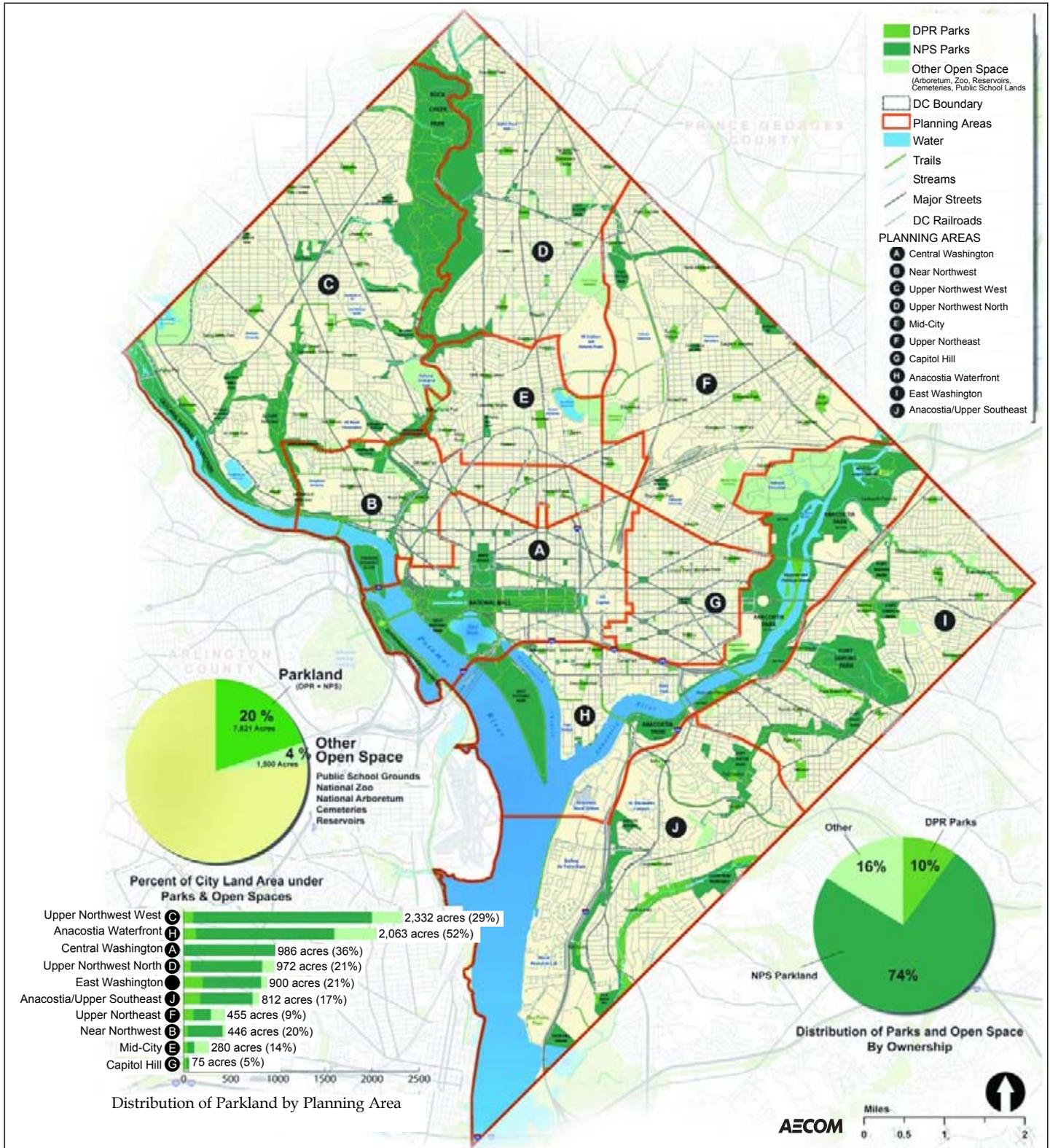
There are seven management units with administrative oversight of NPS properties in the District, each with a superintendent reporting to the NPS National Capital Regional Office.

- ◆ National Mall and Memorial Parks (NAMA)
- ◆ National Capital Parks East (NACE)
- ◆ White House-President's Park (PRPK)
- ◆ George Washington Memorial Parkway (GWMP)
- ◆ Chesapeake & Ohio Canal National Historical Park (CHOH)
- ◆ Ford's Theatre (FOTH)



## Parks and Open Space

Parkland comprises approximately 20 percent of Washington’s land. Almost 90 percent of parkland — more than 6,700 acres, including Rock Creek Park, the National Mall, Anacostia Park, and the Fort Circle Parks — is under the National Park Service’s jurisdiction. Another ten percent is owned and managed by the government of the District of Columbia’s Department of Parks and Recreation. The remaining 1,500 acres of open space, including the National Zoo, National Arboretum, public school playfields, and cemeteries, are owned and managed by various federal and local agencies.





NPS manages more than 350 properties covering over 6,700 acres in the District of Columbia. These include most of the city's major and well-known parks, such as the National Mall, President's Park, Rock Creek Park, Anacostia Park, and C&O Canal National Historical Park, and approximately 200 circles, squares, and triangles formed as part of L'Enfant's original street layout for the city. Seven NPS management units have administrative oversight of their properties in the District, each with a superintendent reporting to the NPS National Capital Regional Office. While focused primarily on resource conservation, the programming of the NPS parks also reflects the national capital context, including annual cultural events, commemorative sites, and first amendment activities, as well as passive and active recreation.

The District of Columbia's Department of Parks and Recreation (DPR) oversees much of the non-federal park space in Washington that is principally located in neighborhood parks. It relies on multiple agencies and park partners to plan, build, maintain, and program their public spaces. DPR is focused primarily on providing active recreational programming to District residents, and many of the park sites include fields, playgrounds, and community recreation centers offering a variety of activities including aquatics, arts, child care, senior services, and therapeutic recreation.

While the District of Columbia Public Schools (DCPS) does not have a general mission to provide community recreation, it does play an important role in providing active recreation amenities through its management of one-third of the city's active recreation fields. The District Department of Transportation (DDOT) owns and manages approximately 250 small parks within the city rights-of-way, and also plays a key role in developing pedestrian and biking trails, public space development and management, and urban forestry. Other District agencies have important roles in park planning (Office of Planning), park development (Office of the Deputy Mayor for Planning and Economic Development), and natural resource management (Department of the Environment).

Many of the District's parks and open spaces were transferred from the federal government as part of the District of Columbia Home Rule Act of 1973, and additional sites were transferred in subsequent years. Some of these transferred sites are managed by the District for park, school, or transportation purposes, but the federal government retains ownership.

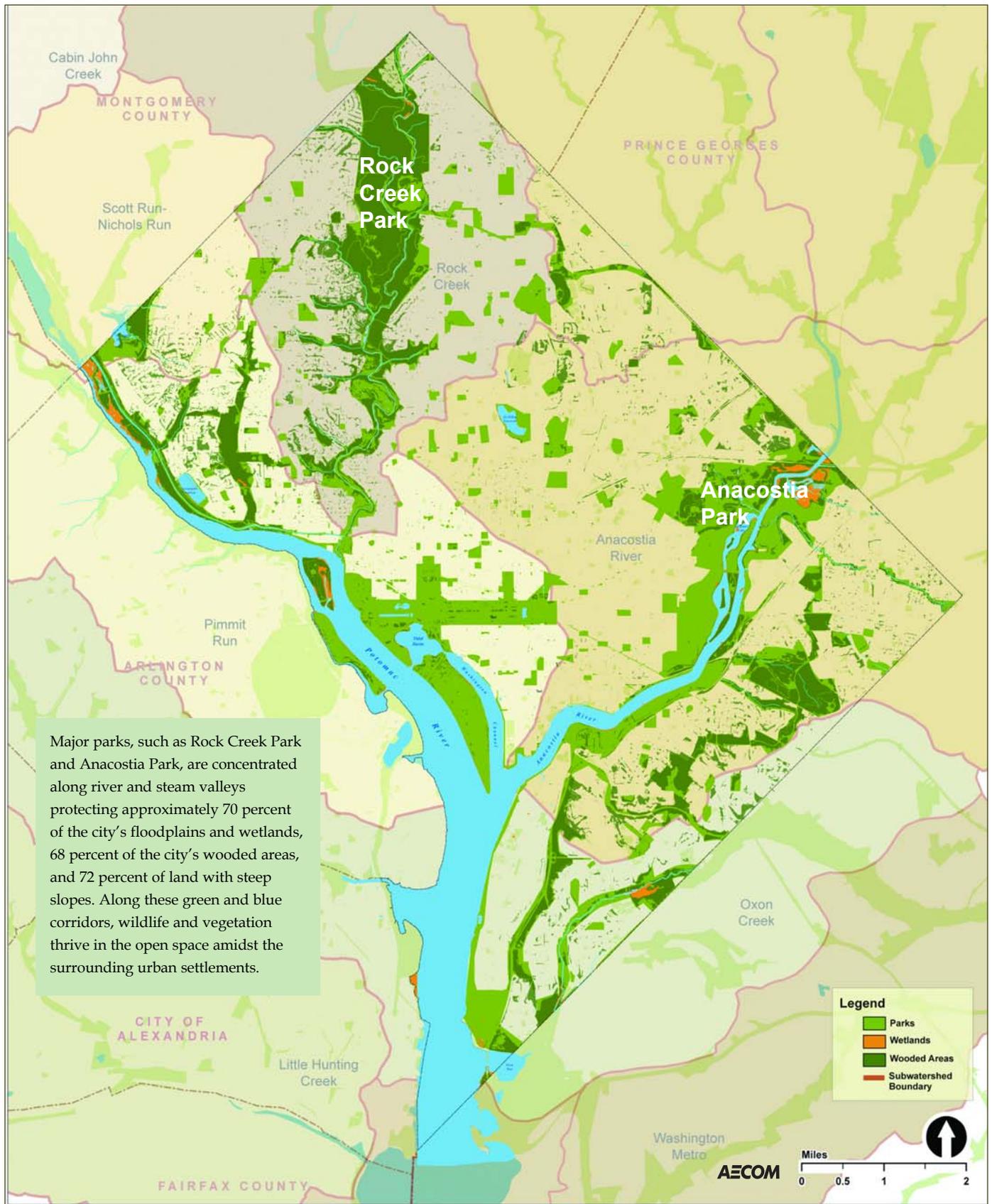
## Tree cover in Washington

Historical data on Washington's tree cover, while difficult to interpret due to advances in geographic imaging and data formatting, show a decrease in tree canopy since the 1970's — a trend experienced by metro areas across the United States. Tree cover extent and condition baselines have now been established, and with the help of Casey Trees are being monitored on a 5-year basis.

U.S. Department of Agriculture Forest Service data, taken in 2008, puts Washington's current urban tree canopy coverage at 36 percent. In 2009, the District government officially adopted a city-wide urban tree canopy goal of 40 percent canopy coverage by 2035 (source: Green DC Agenda), similar to other jurisdictions in Maryland and Virginia.

The District government is currently developing an implementation plan that identifies specific funding sources for tree planting and maintenance projects to help achieve the 40 percent goal.

## Ecologically Sensitive Resources



Consequently, there are many times when DPR or DCPS must consult directly with the NPS to ensure that park development complies with NPS policies. Park development must also comply with District zoning regulations. Changes to federally owned property are reviewed by the U.S. Commission of Fine Arts and NCPC to meet design standards and ensure compliance with other federal interests.

CapitalSpace is primarily focused on public parkland. There is, however, a significant amount of other open space in Washington, much of it under the jurisdiction and management of federal agencies that will not be impacted by the plan. These sites include the U.S. Capitol Complex (Architect of the Capitol); the National Arboretum (Department of Agriculture); the National Zoo (Smithsonian Institution); and the Armed Forces Retirement Home. The General Services Administration and the Department of Defense manage a number of federal campuses and buildings with landscaped grounds, natural areas, courtyards, plazas, and recreational amenities. There are also several publicly-controlled cemeteries and reservoirs, as well as open space on institutional and privately held properties.

While there are complex jurisdictional arrangements, there is also the potential to join multiple and diverse resources, reflecting the strengths and values of each agency. In some cases, different agencies contribute different resources to a park site. For example, DDOT has helped to plan and fund trail improvements on NPS sites, as well as sites managed by other District agencies. However, complex jurisdictional arrangements also introduce a set of challenges. Each organization operates under different missions, has its own rules and regulations, priorities for improvements, and funding sources. Park development, programming, and maintenance are often uncoordinated and agencies have different policies concerning use and partnership, which can often be confusing or unclear to the public.

## Natural Resources

In a city designed to take advantage of its spectacular natural setting, it is fitting that Washington's parks and open spaces are home to the majority of its natural resources. Approximately 70 percent of Washington's wetlands and floodplains, 68 percent of its wooded areas, and 72 percent of its land with steep slopes are contained within Washington's parks. Seventy-two percent of the Anacostia and Potomac River shorelines are in park ownership, and parks protect most of the city's stream valleys, including Rock Creek, Oxon Run, and Watts Branch.

Despite their urban setting, Washington's parks function as habitat corridors linked to larger regional systems, and fragile and unique ecosystems, hosting diverse plants and animals. It is possible to hike through mature hardwood forests, paddle up a river gorge, and watch a heron take flight within minutes of some of the city's busiest neighborhoods.

The city's natural resources, however, face challenges. As Washington developed, wetlands were filled, stream corridors were used for storm sewer infrastructure, and rivers were polluted. These problems still affect natural resources today, both inside and outside of parks.



Oxon Run



Invasive species and a changing climate pose threats to existing natural resources. Development can fragment habitat corridors, and can result in stormwater runoff, noise, erosion, air pollution, trash dumping, and altered temperatures. The city's natural resources face overuse by the people that value and seek out these spaces, pressure to accommodate park uses that are not compatible with protecting these resources, and demands to be developed for other uses.

Ensuring that Washington's rivers, forests, and streams are protected, restored, and enhanced, and that its habitat corridors are connected, are key components of making the city green and sustainable. The premise of the city's earlier plans hold true today: the need for city dwellers to have the opportunity to connect with nature; to ensure that the noise, the crowding, and the pollution of the city are addressed through the green lungs of open space; and to learn about the environment through the natural classrooms that are the city's parks.

## Historic and Cultural Resources

As the nation's capital and as a city with a vibrant and rich past, Washington is filled with historic and cultural treasures, many of which are contained in parks and open spaces. City and federal agencies both have responsibilities for designating and protecting historic sites and evaluating impacts to these resources from development proposals. The NPS is responsible for managing most of the park sites with historic and cultural resources in Washington. Currently, nearly 26 percent of Washington's parkland is in a designated historic district. Cultural landscapes are associated with a historic event, activity or person or exhibiting other cultural or aesthetic values. The NPS has identified just over 6,000 acres of land in the District as a cultural landscape, representing 87 percent of all NPS parkland in Washington and 65 percent of the city's total parks and open spaces.

For example, the Fort Circle Parks contain not just earthen fortifications from the Civil War, but also the site where the only sitting president was ever fired upon during a war. The home of Frederick Douglass, overlooking the city from east of the Anacostia River, tells the story of this important African-American abolitionist and District resident, and is managed by the NPS. The Plan of the City of Washington, familiarly known as the L'Enfant Plan, is formed by the streets, parks and reservations of the original city. It is listed in the District of Columbia Inventory of Historic Sites and in the National Register of Historic Places. In addition to specific buildings and designated historic districts, a number of cultural and commemorative works celebrate the nation or the city through monuments, memorials, and other landscape elements.



President's Park

Of the 96 District of Columbia sites in the National Register of Historic Places, 11 are parks:

- ◆ C&O Canal NHP
- ◆ Dumbarton Oaks Park
- ◆ Franklin Square
- ◆ Kenilworth Aquatic Gardens
- ◆ Lafayette Square
- ◆ Lincoln Park
- ◆ Meridian Hill Park
- ◆ Montrose Park
- ◆ National Mall
- ◆ President's Park
- ◆ Rock Creek Park

These remarkable resources already offer great opportunities for significant education and programming, attracting visitors and providing a sense of place and heritage for residents. These sites are not without challenges, however. The significance of these sites, and many of their stories, are not fully interpreted and visible. Managing and maintaining these sites requires additional attention. As with park sites containing environmental resources, protecting these sites often requires restrictions on how the sites can be designed and used. Given how much of the city's park resources have these restrictions, it means that while there is an abundance of parks, not all parks are fully available to meet the needs of all park users.

## Distribution, Access, and Capacity

Washington has several very large parks and many small parks, with comparatively few medium-sized parks (5-15 acres, the size of typical neighborhood parks throughout the country). There are hundreds of parks under one acre in size which are best suited as pocket parks, commemorative sites, or as public space along a street corridor. However, due to their size they are unable to accommodate active recreational facilities or events.

While Washington has a lot of park space, most of the land area is located in a few very large parks: Rock Creek Park in the northwest; the National Mall, and East and West Potomac Parks in the Center City and southwest; Anacostia Park in the southeast; and the Fort Circle Parks along the city's perimeter. All are more than 50 acres in size and together comprise 80 percent of the park system's land area. Overall, while parks are distributed uniformly across the city, some sections of the city have limited walkable access to a large park site, particularly in the upper north-central, Mid-City, and Capitol Hill. While some park services are effectively provided on a city-wide basis, walkable access to park space is important.

There are a limited number of sites in the city that offer opportunities to establish significant new parkland or publicly accessible open space as sites redevelop. These include sites located in parts of the city with comparatively less access to parks than other areas. Examples include the Armed Forces Retirement Home, the North Capitol Street Cloverleaf, McMillan Reservoir, and the RFK Stadium site. Many of these sites are already identified in the Federal and District Elements of the Comprehensive Plan as possible sites for parks and open space that can benefit underserved communities and meet long-term park needs.

Access to parks is also affected by physical barriers, such as freeways and railways, steep terrain, or security fencing. Superblock design, the lack of sidewalks, and other pedestrian amenities can make it difficult to access parks. Washington has miles of riverfront park, but historically much of it was physically difficult to access or perceptually uninviting. Fortunately, recent federal and District efforts are changing this.

There are a number of federal and District-held public sites with significant open space, including the National Arboretum, the National Zoo, the grounds of the U.S. Capitol, several Department of Defense facilities, and the city's reservoirs and cemeteries. Many federal and institutional facilities have significant public plazas or are situated in campus-like settings. Access to these open space sites varies significantly, often shaped by security and mission/use-driven issues.



A freeway barrier south of Banneker Park



## Armed Forces Retirement Home

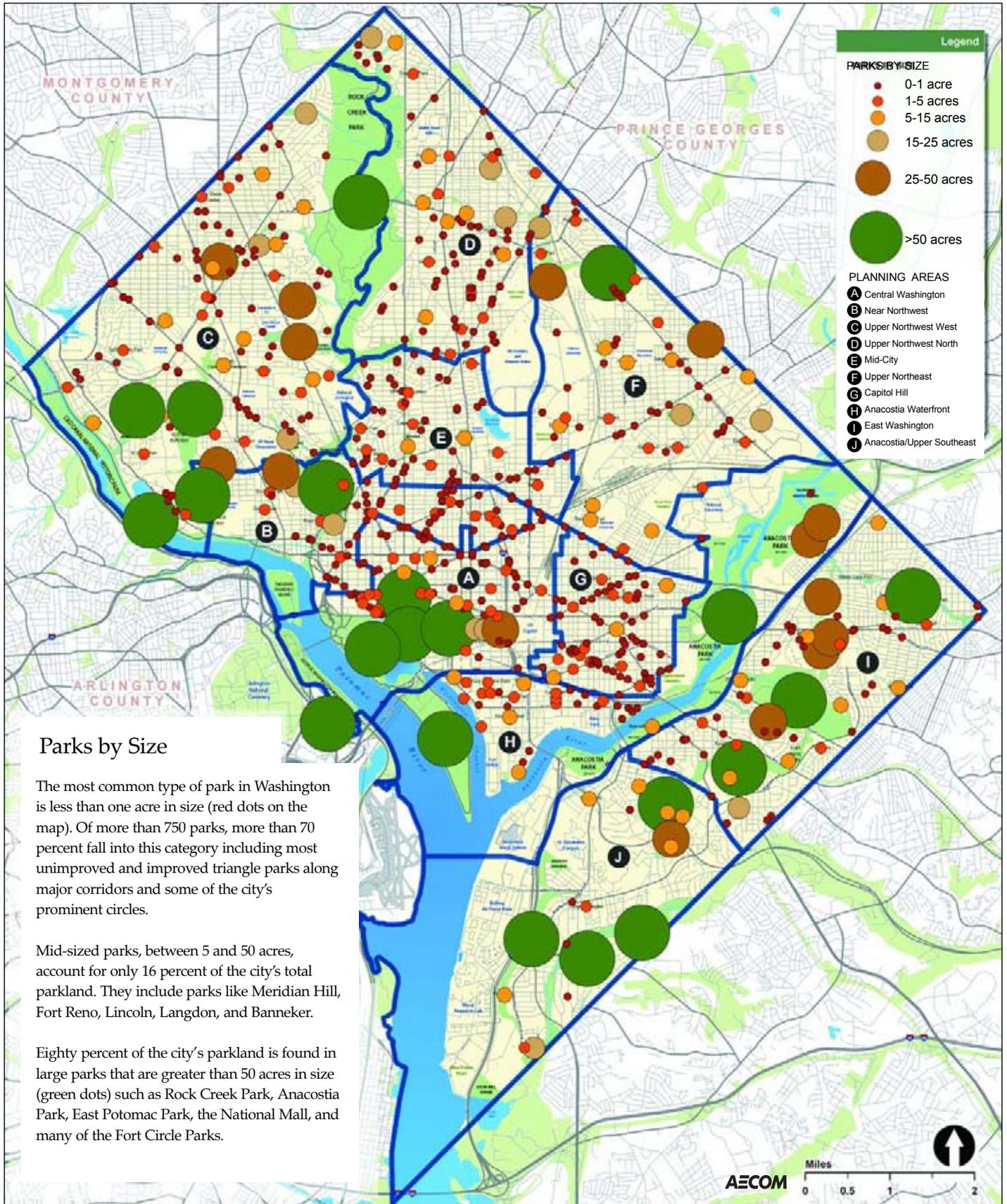
In July 2008, NCPC approved a master plan for the 272-acre Armed Forces Retirement Home (AFRH), which serves slightly more than 1,200 military veterans. This master plan included the leased development of the southeast corner for private residential, office, and retail uses, providing a revenue stream to support the AFRH's activities, as well as approximately 23 acres of public park space to serve the new development and the larger surrounding neighborhood.

To further improve access to publicly accessible open space in the upper north-central part of the city, Washington Central Parks, a non-profit organization, and other neighborhood advocates have identified an opportunity to connect existing public parks with publicly-held, but often publicly-inaccessible, open space into a linked system of public spaces. Specifically, the concept is to connect Fort Totten on the north with open space on a redeveloped McMillan Reservoir sand filtration site to the south, using open space areas along the perimeter of the AFRH and the Washington Hospital Center as linkages in this system. This concept presents an opportunity to thread together many recreational facilities and important cultural and historical elements, and to improve the overall access to open space for the surrounding community.

Perception can also limit access. Poor maintenance at park edges, trash or overgrown vegetation, lack of signage, evidence of vandalism and vagrancy, and real and perceived concerns about crime can contribute to parks being viewed as less secure and uninviting. Park access is also about information. Many of the resources in parks are unknown to the public, because there is little coordinated, easily available information about the park system as a whole.

Understanding how the city's parks can fully meet their potential means looking at their capacity. Improved access, maintenance, design, and programming offer the opportunity to increase the capacity of existing park assets.

Some parks suffer from over-use, while others are under-used, sometimes due to poor conditions. All the agencies that manage parks and open space are challenged to build and maintain parks to the highest standards while working with constrained resources. There is considerable work to be done to better define appropriate and compatible uses in parks, particularly those with sensitive resources. New designs may also allow parks to provide greater use or new uses. For example, Georgetown Waterfront Park demonstrates that sustainable features can improve stormwater management, increase tree canopy and native vegetation, and provide aesthetic and active spaces for public recreation. Some technologies may also expand capacity in specific applications, but not in others. For example, artificial turf and lighting can extend playing time and durability on fields, but are not appropriate in national parks.



### Parks by Size

The most common type of park in Washington is less than one acre in size (red dots on the map). Of more than 750 parks, more than 70 percent fall into this category including most unimproved and improved triangle parks along major corridors and some of the city's prominent circles.

Mid-sized parks, between 5 and 50 acres, account for only 16 percent of the city's total parkland. They include parks like Meridian Hill, Fort Reno, Lincoln, Langdon, and Banneker.

Eighty percent of the city's parkland is found in large parks that are greater than 50 acres in size (green dots) such as Rock Creek Park, Anacostia Park, East Potomac Park, the National Mall, and many of the Fort Circle Parks.

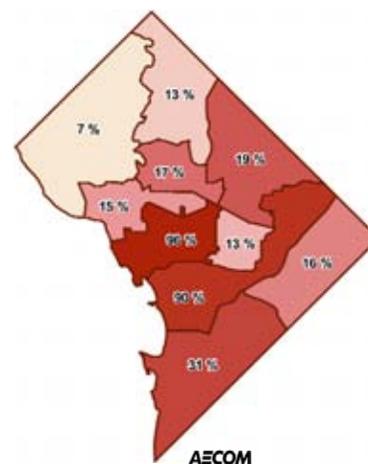
It is also important to consider park location in relationship to neighborhoods with the greatest density of workers and residents. Parts of Capitol Hill and Mid-City, for example, have high residential densities, but are located some distance from any large park, limiting access for these communities. In addition, many parts of the city are projected to grow, placing an increasing demand on existing park resources, such as the emerging neighborhoods in areas such as North of Massachusetts Avenue (NoMa) and around Nationals Park. Increasingly, residents and business districts will seek to ensure that adjacent public spaces are attractive and that signature elements define the neighborhood. The high cost of land in Washington presents challenges to acquiring affordable land for public parks and open space, so it is important to be creative in meeting increasing demands for park space. There are opportunities to work with public and private developers to include publicly-accessible open spaces within new developments throughout the District, or provide appropriate benefits that enhance park facilities.

Washington's demographic profile is changing; the size of households is diminishing, the number of residents is increasing, and more students and retirees are moving in. All of these factors will influence the kinds of park experiences sought after in the future.

While more traditional team sports will remain popular, new team sports, such as kickball, ultimate Frisbee, or cricket may rise in popularity. There is growing interest in individual sports, such as biking and skateboarding, as well as passive recreation activities, such as picnicking and bird-watching. In urban environments across the country, there is demand for community gardens and dog parks.

Nationally, there is increased interest in park use and tourism based around cultural, historical, and ecological features. There are more than 20 million visitors coming to Washington each year, many of whom focus on the Monumental Core. An opportunity exists to increase awareness and highlight the cultural, historical, and ecological features in parks in other parts of the city so they become part of Washington's visitor experience.

Washington is growing, and how residents, workers, and visitors will seek to use the city's parks is anticipated to grow and change. The challenge is to successfully address the additional demand for parks, particularly in underserved areas, and ensure that overuse or inappropriate uses are prevented while responding to new interests quickly and flexibly. The opportunity presented by this growth is to build a new constituency of urban park users and introduce them to the great resources and recreational opportunities in our national and local parks.



Percent Projected Growth 2005-2025

The population of Washington is forecasted to increase 21 percent between 2005 and 2025 to 700,000. When compared to where Washington's parks and open space are located, population growth will put pressure on existing park resources. For example, the population of the Center City is forecasted to grow by 96 percent, but outdoor neighborhood recreational facilities have not been provided in this area historically or are located on the National Mall. Other areas, such as the upper north-central, mid-city, Capitol Hill, and the Southwest Waterfront are also forecasted to have significant population growth.