National Park Service U.S. Department of the Interior

Fort Circle Parks Washington, D.C.



832/D-10



Draft Management Plan Environmental Assessment

FORT CIRCLE PARKS
Washington, D.C.



TECHNICAL INFORMATION CENTER DENVER SERVICE CENTER MATICINAL PARK SERVICE



SUMMARY

Three Washington, D.C., area parks — Rock Creek Park, National Capital Parks-East, and George Washington Memorial Parkway contain Civil War earthworks collectively known as the "Fort Circle Parks." Originally these earthworks were to have been connected by a Fort Circle Drive in accordance with The Improvement of the Park System of the District of Columbia (1902). Although begun, the drive was never completed, and the forts and parcels of land purchased for the drive were divided among the three parks to manage. The importance of the historic earthworks and the greenbelt of parks along the ridge surrounding the city make this a significant open-space element in the nation's capital.

This plan describes three alternatives for the use, management, and development of the Fort Circle Parks. An earlier plan, the Fort Circle Parks Master Plan of 1968, was developed to provide similar guidance, but it was never fully implemented.

The alternatives, briefly described here, range from a continuation of existing conditions to a comprehensive rethinking of the management and interpretation of the earthworks.

Alternative 1, the no-action (status quo) alternative, describes a continuation of the present management course. It provides the baseline to which all other alternatives are compared. Interpretation is mostly self-guided, with many of the earthworks left untreated.

Alternative 2 would focus on improving local and regional visitor use compatible with the protection of significant cultural and natural resources in the Fort Circle Parks. This would be accomplished primarily by designating a trail throughout the 23-mile length of the parks. Existing recreational facilities would be rehabilitated to ensure continued use.

Alternative 3 would focus on the story of the Civil War defenses of Washington, with emphasis on the battle of Fort Stevens in Rock Creek Park. Three sites would be designated as key locations for orientation and information: Fort Marcy (George Washington Memorial Parkway), Fort Stevens, and Fort Dupont Park (National Capital Parks—East). A continuous trail would not be included. Significant natural and cultural resources would be protected. Existing recreational facilities would be rehabilitated to ensure continued use.

The following environmental consequences of these alternatives are general and/or programmatic. Additional site-specific analyses would be needed as actions were undertaken.

Under alternative 1, the protection and preservation of cultural resources and associated educational programs would continue to be inadequate. Vegetation on the earthworks would continue to grow, and interpretive programs and educational materials would remain inadequate. Continuing current management would have moderately adverse impacts on natural resources. There probably would be no wildlife habitat deterioration or loss; however, aggressive exotic plants would spread, potentially displacing native species. Visitor awareness would be enhanced because of new brochures and interpretive signs that would be developed to guide the way between forts. Economic conditions would not be affected.

Under alternative 2, cultural resources would benefit from the improved protection and preservation of earthworks and fort sites through stabilization and vegetation management. Visitor awareness would be enhanced because of the new walking trail connecting the historic earthworks and the accompanying brochures and interpretive signs developed to guide the way. Existing recreational opportunities would be improved by rehabilitated facilities.

SUMMARY

The effect on natural resources would be the same as that described for alternative 1, except that the construction of the walking trail where feasible (where it does not currently exist) would cause some disturbance of soils and vegetation. Some wildlife habitat could be lost, but the trail would be narrow and limited in nature and not affect overall wildlife populations. Impacts on water and air would be negligible. The visitor experience would be enhanced over the long term through expanded interpretive programs and by increased accessibility and safety. The effect on the regional economy would not be significant.

Alternative 3 would greatly benefit cultural resource management and education. Interpretive efforts would concentrate on three major locations, with additional interpretation at

other sites, and a Fort Circle Parks logo would be created to unify the disparate locations. These efforts would be supplemented by additional brochures and wayside signs. Earthworks could undergo preservation treatment to halt erosion and repair existing damage, then periodic maintenance would be carried out to ensure their future protection. Impacts on natural resources would be similar to those described for alternative 2, minus the effects of any trail construction. As in alternative 2, the visitor experience would be enhanced by upgraded interpretive methods. The rehabilitation of recreational facilities also would be beneficial for visitors, although no continuous pedestrian trail would be constructed. The impacts on the overall regional economy would be negligible.

CONTENTS

Context for the Plan 1

Purpose of and Need for the Plan 3

Purpose of this Plan 3
Need for the Plan 3
National Capital Planning Commission Policies 4

Introduction 8

The Fort Circle 8
National Park Service Sites 9
Sites Outside NPS Ownership 9
Previous Planning Efforts 9
Purpose and Significance 13
Purpose 13
Significance 13
Interpretive Themes 14
Desired Visitor Experience 15
Desired Resource Condition 15

Planning Issues and Challenges 16

Cultural Resource Issues 16
Natural Resource Issues 16
Visitor Use Issues 16
Park Administration/Operations Issues and Challenges 17
Issues Beyond the Scope of this Plan 17

Alternatives 19

Introduction 21

Zoning 21
Potential Management Prescriptions 21
Cultural Resource Zone 21
Connecting Corridor Zone 22
Recreation Zone 22
Natural Resource Zone 23
Visitor Services Zone 24
Special Use Zone 24
Administrative Zone 25
Elements Common to All Alternatives 25
Preservation Planning 25
Visitor Use Study 27
Carrying Capacity 27
Visitor Safety 27
Access for Visitors with Disabilities 27

Alternative 1: Maintain Current Management 29

Overview 29
Cultural Resource Management 29
Natural Resource Management 29
Recreation 29
Visitor Use and Development 29
Park Management and Operations 29

CONTENTS

Alternative 2: Reconnecting the Forts 33 Overview 33

Recreation 33
Cultural Resource Management 40

Natural Resource Management 40

Visitor Use and Development 40

Park Management and Operations 40

Alternative 3: Civil War Defenses of Washington 41

Overview 41

Cultural Resource Management 41

Natural Resource Management 41

Recreation 41

Visitor Use and Development 42

Park Management and Operations 42

Alternatives Considered but Not Analyzed Further 51

Overview 51

The Fort Drive 51

Continuous Bicycle/Foot Trail 51

Restoration/Reconstruction of Forts 52

Establishing a Separate NPS Unit 53

Major Visitor Center 53

Affected Environment 55

The Setting 57

District of Columbia 57

Ward 3 57

Ward 4 58

Ward 5 58

Ward 6 59

Ward 7 59

Ward 8 60

Maryland 60

Virginia 60

Cultural Resources 61

Historical Overview 61

Civil War 61

Postwar Washington 62

Preserving the Forts 62

Current NPS Sites 63

Archeological Resources 63

Urban Threats 63

Historic Resources 63

Cultural Landscapes 63

Viewsheds 64

Natural Resources 65

Introduction 65

Geology and Soils 65

Vegetation 65

Wildlife 66
Threatened and Endangered Species 66
Water Resources 67
Air Quality 68
Urban Threats 69
Soundscape 69

Visitor Use 70

Introduction 70
Interpretation and Education 70

Socioeconomic Environment 71

Population and Economy 71
Land Use 72
Recreation 72
Transportation, Access, and Parking 73

Environmental Consequences 75

Alternative 1: Maintain Current Management 77

Introduction 77

Impacts on Cultural Resources 77

Impacts on Natural Resources 77

Impacts on Visitor Experience 78

Impacts on the Socioeconomic Environment 78

Impacts on Park Management and Operations 78

Alternative 2: The Forts Connected 79

Impacts on Cultural Resources 79

Impacts on Natural Resources 79

Impacts on Visitor Experience 80

Impacts on the Socioeconomic Environment 81

Impacts on Park Management and Operations 82

Alternative 3: Civil War Defenses of Washington83

Impacts on Cultural Resources 83

Impacts on Natural Resources 83

Impacts on Visitor Experience 84

Impacts on the Socioeconomic Environment 85

Impacts on Park Management and Operations 85

Consultation, Coordination, and Public Involvement 87

Consultation and Coordination 89

Public Involvement 89

Other Information Gathering 89

Appendixes/Bibliography/Study Team 91

927		S ™ 171		1		00
Append	ix	A:	Legis	a	tion	93

Appendix B: Compliance with Federal and State Laws, Executive Orders, and Regulations 103

Appendix C: Civil War Defenses of Washington Fort Sites Outside NPS Ownership 106

Appendix D: Related Planning Efforts in the Washington, D.C., Area 108

Appendix E: Cost Estimates 111

Appendix F: Fort Circle Parks — National Park Service Sites 113

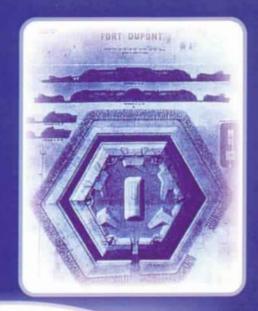
Bibliography 115

Preparers 117

Management Zone Maps 119

Maps

Vicinity 6
Historic Map of 1865 7
NPS Fort Sites 11
Alternative 1 31
Alternative 2 35
Alternative 2, section 1 37
Alternative 2, section 2 38
Alternative 2, section 3 39
Battle of Fort Stevens Walking Tour 4
Alternative 3 45
Alternative 3, section 1 47
Alternative 3, section 2 48
Alternative 3, section 3 49
Alternative 3, section 4 50





FOR THE PLAN



PURPOSE OF AND NEED FOR THE PLAN

PURPOSE OF THIS PLAN

The purpose of this Draft Management Plan/Environmental Assessment is to provide a unifying management concept for significant historic resources associated with the Civil War defense of Washington that would allow these resources to be preserved for future generations, and interpreted in a coherent, easily understandable manner.

The plan presents and analyzes alternatives to guide management for the next 10-15 years, including the management of cultural and natural resources, visitor use and development, park operations, and land use.

This plan was begun with the understanding that the Fort Circle Parks would be evaluated for inclusion in the National Park System as a separately authorized unit. Although not one of the alternatives described in the "Alternatives" section of this plan, that option is briefly explained in the section titled "Alternatives Considered but not Analyzed Further."

"... to provide for the preservation and improvement of certain spots of exceptional beauty, like the chain of abandoned forts encircling the District ... (1902, Senate Park Commission Plan)

NEED FOR THE PLAN

The Fort Circle Parks are a collection of historic Civil War resources and the remnants of what was originally envisioned as a parkway with a historical focus, but never completed. Even in Washington, they are not well known. Individual areas may be heavily used by neighbors but not understood to be a part of the national park system. This plan is needed to help provide a consistent image that distinguishes the Fort

Circle Parks as a part of the national park system.

The Fort Circle Parks are under the management of three separate management units — Rock Creek Park, the National Capital-East, and George Washington Memorial Parkway umbrella of parks. Each has its own staff, management guidance, and priorities. Uniformity of interpretation, maintenance, and recreational activity does not exist among the three units. This plan is needed to provide such guidance to management allowing a seamless transition from parcel to parcel. The visitor should not see a difference when traveling from one management unit to another.

A Master Plan was completed in 1968 to help guide the management of the Fort Circle Parks. Actions proposed in that plan have now either been implemented or are no longer deemed appropriate. This plan should help to insure that management goals, objectives, and practices do not differ among the three parks and that all actions are made in accordance with National Park Service policy and guidelines.

The direction for future park management is based on the purpose and significance of the resources described below. These elements in turn are the foundation for the park interpretive topics and management objectives. Collectively, these pieces provide the context and philosophical direction for the alternatives considered. When approved, the management plan will provide broad direction for park management and allow specific action plans to be developed later to spell out the details for implementation.

Within this framework, the focus of this document is on the management of cultural and natural resources, visitor use, interpretation and education, and recreational services. The National Park Service would comply with applicable laws, executive orders, and regulations (see appendix A). Three alternatives that

describe different management scenarios are presented and analyzed.

NATIONAL CAPITAL PLANNING COMMISSION POLICIES

The National Capital Planning Commission provides guidance to all federal land managing agencies through its *Comprehensive Plan*. The parks, open space, and natural features element was updated during 1999 and 2000 and was formally adopted on February 1, 2001.

The plan contains the following policies pertaining to Fort Circle Parks:

Protecting Federal Open Space

The regional significance of federal land continues to grow. Many of the federal parks, such as the C&O Canal, Rock Creek Park, Anacostia Park, and the Fort Circle Parks, extend for great distances and are linear in nature. Federal open spaces radiate throughout the region in a manner that provides regional integration, not only with other federal lands, but also with lands under jurisdiction of neighboring states, local governments, or nonprofit entities. These existing and potential greenway interconnections provide significant opportunities for continuous passive and active recreational activities such as bicycling, walking and jogging, and wildlife observation. Various initiatives at the national, regional, and local level are underway to create, preserve, and improve these connections. These efforts are essential to maintaining enjoyment of the green city qualities that distinguish the Nation's Capital.

Natural Features

Encourage and plan for the development of a continuous trail system for pedestrians and bicyclists. This trail system would connect the shoreline parks of the Anacostia and Potomac Rivers, Rock Creek Park, the Fort Circle Parks, and other points of interest within the nation's capital with other regional, state, and local park systems in the region as a means of strengthening their recreational and ecological values.

Policies for Historic Parks

The Fort Circle Parks should continue to be enhanced and completed. Development and conhancement of the Fort Circle Parks should be compatible with the important natural features contained within, as well as the important function they serve as a landscape feature as viewed from the monumental core. In addition, the important scenic and historic elements of these Civil War forts and panoramic views should be preserved, where appropriate. Community-oriented recreational opportunities and a well-delineated trail in a park-like setting — using the McMillan Plan park connections — should be provided throughout the system.

Policies for Trail Systems

The Fort Circle Parks trail system should be completed as a continuous trail, linking the historic Civil War Fort sites within the District. Existing street rights-of-way will be used where delicate cultural and natural features will not support a trail alignment unimpaired. The existing hiking trail through Glover-Archbold Park should be upgraded and link the Fort Circle trail system with the C&O Canal trail, if practicable.

LEGISLATION

The act of June 6, 1924, "An Act providing for a comprehensive development of the park and playground system of the National Capital" set up the National Capital Park Commission to acquire lands within the District of Columbia, Virginia, and Maryland for the development of the National Capital park, parkway, and playground system and "... to preserve the flow of water in Rock Creek, to prevent pollution of Rock Creek and the Potomac and Anacostia Rivers, to preserve forests and natural scenery in and about Washington..."

The Capper-Cramton Act of May 29, 1930, as amended, was "an Act for the acquisition, establishment, and development of the George Washington Memorial Parkway along the Potomac from Mount Vernon and Fort Washington to the Great Falls, and to provide for the acquisition of lands in the District of Columbia and the states of Maryland and Virginia requisite to the comprehensive park, parkway, and playground system of the National Capital.

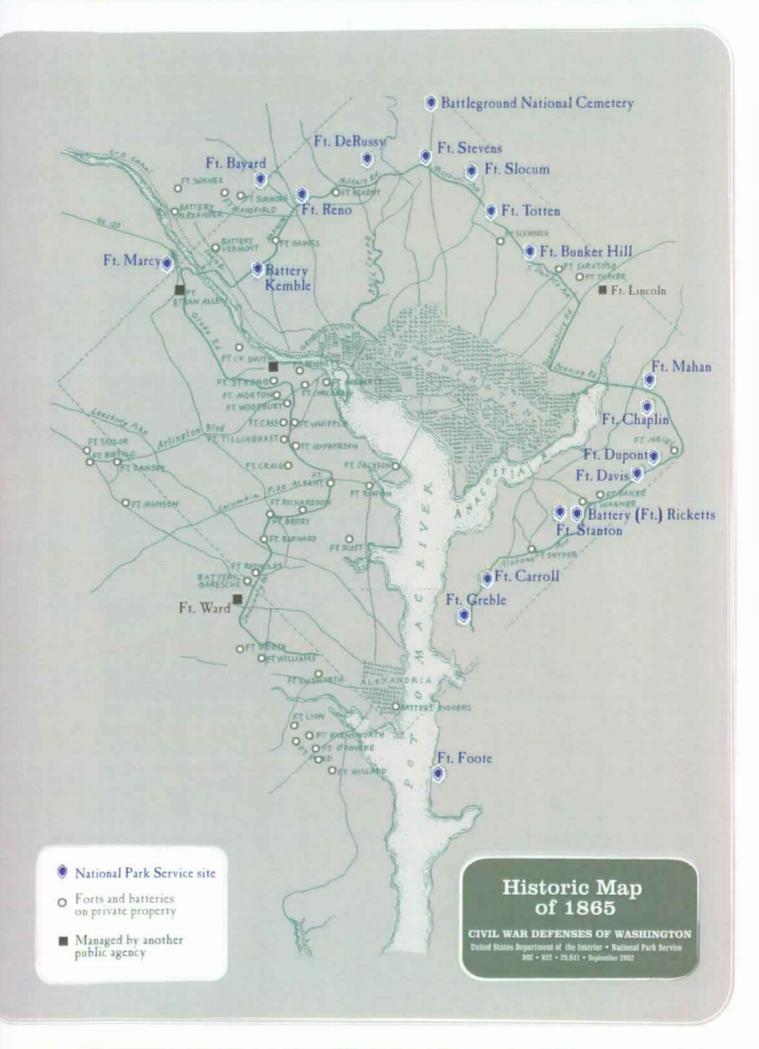
The Capper-Cramton Act, as it relates to the Fort Circle Parks, appropriated funds for the further acquisition of "...such lands in the District of Columbia as are necessary and desirable for the suitable development of the National Capital park, parkway, and playground system ..." Executive Orders 6166 and 6228 of June 10, 1933 and July 28, 1933, transferred to the National Park Service jurisdiction of Battleground National Cemetery and the functions of various commissions and agencies, among which were the public buildings and public parks of the National Capital.





Vicinity
FORT CIRCLE PARKS

United States Department of the Interior • National Park Service DSC • 832 • 20,030 • Sept 2002



INTRODUCTION

THE FORT CIRCLE

With the outbreak of the Civil War, Washington turned into the training ground, arsenal, supply depot, and nerve center for the Union's cause. Newly formed regiments encamped in every quarter and streets reverberated under the wheels of cannon. Cattle for meat grazed on the Mall; sacks of flour, stacked against siege, surrounded the U.S. Treasury. To protect the city and vital supply routes from enemy hands, the Union army built a ring of earthen fortifications on the ridges surrounding it.

The remains of those fortifications, preserved by the National Park Service, make up the Fort Circle Parks. When constructed in the 1860s, the system of forts and connecting roads were on the city's edge. The development of the city and nearby neighborhoods ultimately absorbed most of the sites, but the names of neighborhoods, playgrounds, parks, and other places throughout the area have origins in the Civil War fortifications.

When the Civil War began, only one fortification served as the capital's defense. Fort Washington, nearly 12 miles down the Potomac River, was built to guard against enemy ships following the War of 1812. It took the rout of federal forces at Manassas in July 1861 to reveal how truly vulnerable the city was. Taking command of and reorganizing the Army of the Potomac, Maj. Gen. George B. McClellan appointed Major John G. Barnard of the Corps of Engineers to build new forts to protect the city of Washington.

Selecting sites a few miles outside the city limits, Barnard's engineers picked high points that overlooked major turnpikes, railroads, and shipping lanes. Natural fords upriver from the city, allowing the enemy to cross the Potomac during low water, spurred the building of more forts and batteries. Rifle pits filled in the gaps.

By spring 1865 the defense system totaled 68 forts and 93 batteries, with 807 cannons and 98 mortars in place. Twenty miles of rifle trenches flanked the bristling strongholds, joined by more than 30 miles of military roads over which companies of soldiers and guns could move as reinforcements. Washington, D.C., had become the most heavily fortified city in the world. As a result only once during the war were Washington's defenses tested and that occurred at Fort Stevens.

Today, 0.5 mile north of Fort Stevens on Georgia Avenue (the Seventh Street Road that carried Early's men to the assault), Battleground National Cemetery, one of the smallest national cemeteries, has 41 headstones for victims and veterans of the 1864 action near the fort. Regimental memorials honor the soldiers from New York, Pennsylvania, and other northern states, who fell on July 11 and 12 fighting to save the capital.

At the war's end in 1865 the forts and batteries were dismantled, the lumber and other materials were sold at auction, and much of the land was returned to prewar owners. Fort Foote, an active army post until it was abandoned as a fort in 1878, was the last of the city's Civil War defenses to close.

FORT CIRCLE PARKS

National Park Service Sites

Fort Marcy, Battery Kemble, Fort Bayard, Fort Reno, Fort DeRussy, Battleground National Cemetery, Fort Stevens, Fort Slocum, Fort Totten, Fort Bunker Hill, Fort Mahan, Fort Chaplin, Fort Dupont, Fort Davis, Fort Ricketts, Fort Stanton, Fort Carroll, Fort Greble, Fort Foote, and greenbelt connecting corridor

NATIONAL PARK SERVICE SITES

Remnants of the fortifications can be found along the topographic ridge surrounding the city. They range from landmarks such as Military Road, where only the name suggests its origins, to partial reconstructions such as Fort Stevens and the stabilization and rearmament of Fort Foote. At many of these sites interpretive markers tell their stories. Others require some sleuthing to locate and recognize them for what they are.

Today some remnants of Washington's Civil War defenses are administered by the National Park Service as part of already established parks at George Washington Memorial Parkway, Rock Creek Park, and National Capital Parks-East (see NPS Fort Sites map).

George Washington Memorial Parkway administers Fort Marcy, perched high above the Potomac in Virginia, where it protected against enemy forces crossing Chain Bridge and attacks from northern Virginia land routes.

Rock Creek Park administers a semicircle of Civil War sites, where fortifications guarded against threats to the water supply and invasion from the west or north. Beginning at Chain Bridge Road, the ring starts with Battery Kemble and continues to Fort Bayard, Fort Reno, Fort DeRussy in Rock Creek Park proper, Fort Stevens, Fort Slocum, Fort Totten, and ending with Fort Bunker Hill beside the Franciscan monastery in the northeast section of the city.

Along the hilltops southeast of the Anacostia River, the chain of forts from east to west guarded bridges, Capitol Hill, and naval installations from likely enemy approaches from southern Maryland.

Portions of the Fort Circle Parks managed by National Capital Parks-East include Fort Mahan, Fort Chaplin, Fort Dupont, Fort Davis, Fort Ricketts next to Fort Stanton, Fort Carroll, and Fort Greble. Fort Foote, also managed by National Capital Parks—East, is in Maryland just south of the city. On Rosier Bluff overlooking the Potomac River, two 15-inch Rodman cannons, the heaviest guns of the war, remain as evidence of the important role the fort played in defending the capital city against any river attack.

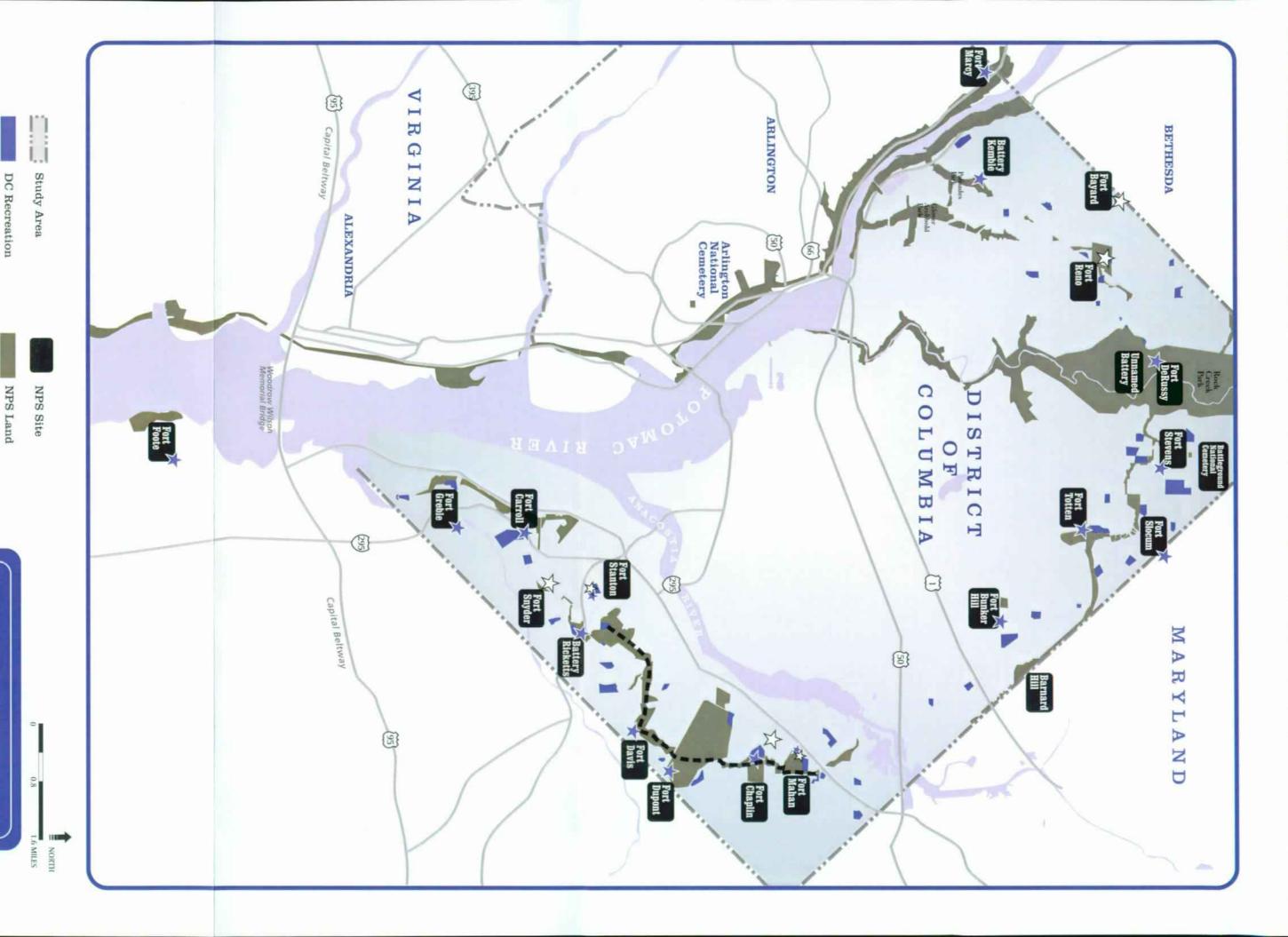
SITES OUTSIDE NPS OWNERSHIP

A number of forts that are not in national park system units are owned and managed by other public agencies in the Washington area. These agencies are potential partners for coordinated interpretive and other programs that would relate to the entire Civil War defense system surrounding Washington. See appendix B for a list and description of those sites in public ownership but outside NPS boundaries.

PREVIOUS PLANNING EFFORTS

The 1902 Improvement of the Park System of the District of Columbia proposed creation of a "Fort Drive" connecting the Civil War circle of forts and earthen fortifications surrounding the city of Washington. This was to be a modern roadway through a landscaped corridor providing leisurely access to each fort site. In 1902, the drive would have been just outside the city.

Between 1930 and 1965 the National Capital Park and Planning Commission continued to pursue the Fort Drive concept, which included acquiring fortification sites and land for parks. Some lands were purchased under the Capper-Cramton Act of May 29, 1930; some were acquired following street closure by the District of Columbia; some were transferred by other government agencies; and some lands were donated. Those properties were transferred to the National Park Service. In 1933 the publicly owned forts administered by the War Department were transferred to the National Park Service. In 1937 the Civilian Conservation Corps (CCC) reconstructed a portion of Fort Stevens, and in 1959 the Park Service acquired Fort Marcy.





NPS Fort Sites
FORT CIRCLE PARKS
United States Department of the Interior - National Park Service
DSG - 832 - 20,031 - Sept 2002

The most recently approved management plan for the Fort Circle Parks was the 1968 Fort Circle Parks Master Plan. While recognizing the historic importance of the Fort Circle Parks, the plan proposed "a continuous flow of visitor use around the inner city of Washington." Visitors would be afforded opportunities for "active and passive recreation as well as historical and natural history interpretation."

The key to this connection of recreational opportunities was to be a continuous bikeway and foot trail, with interpretation of the historic fort sites along the way. The bicycle/pedestrian trail was proposed in lieu of the original fort drive concept because "by this time it has become obvious that the concept of developing a continuous Fort Drive 'parkway' is impossible and impractical." By then, the residential development of the city had grown to surround the Fort Circle Drive ring. Further, the National Capital Planning Commission, in conjunction with the National Park Service, reevaluated the Fort Park system in 1965 and determined that what would best serve the city and the resources would be to retain the concept of the McMillan Commission to "foster the memorialization aspects of the old fort sites into a continuous ribbon of park land in terms of present-day needs and conditions, without a road" (NPS 1968).

The Master Plan made various recommendations for treatment of the fort sites, including stabilizing Forts Mahan, Chaplin, Totten, and Battery Kemble; preserving Fort DeRussy; rehabilitating Battery (Fort) Ricketts; and restoring Fort Dupont and partially restoring Forts Stevens, Davis, Greble, and (Battery) Carroll.

During the intervening years since the approval of the 1968 Master Plan only a portion of the hiking/bicycle trail connecting the fort sites has been constructed. Restoration and rehabilitation recommendations were not implemented. Today some of the remaining fort sites are in need of attention. While essential preservation needs have been met at some sites, portions of others

have deteriorated to the point where preservation efforts are needed.

PURPOSE AND SIGNIFICANCE

Purpose

Purpose statements normally are defined by a park's enabling legislation. Although the Fort Circle Parks are not a specifically legislated unit of the national park system, they were acquired under broad legislative authorities and need to be protected and preserved. The following purpose statements have been developed to guide management decisions for protecting the resources related to the system of forts, natural areas, and connecting corridors of the Fort Circle Parks.

The purposes of the Fort Circle Parks are as follows:

- to preserve and interpret historical resources related to the Civil War defenses of Washington.
- to conserve this linkage of urban green spaces that contribute to the natural character and scenic values of the nation's capital
- to provide recreational opportunities compatible with historic and natural resource values
- to protect the forests and natural scenery and to prevent the pollution of park waterways

Significance

Significance statements define the most important things about a park's resources and values, creating a tool for park managers to use in setting resource protection priorities and identifying primary park interpretive themes and desirable visitor experiences. The following significance statements for Fort Circle Parks reflect the importance of park resources.

- The park sites contain remains of the defense sites (e.g., forts, batteries, rifle trenches) that effectively deterred the invasion of the nation's capital during the Civil War.
- The Fort Circle Parks include the remains of forts that were engaged in the Battle of Fort Stevens in July 1864 the only Civil War battle in the District of Columbia and the only time a sitting U.S. president has come under enemy fire in warfare.
- Fort Circle Parks represents an element of one of the earliest urban planning efforts for public recreation in the United States (as first suggested in the 1902 Improvement of the Park System of the District of Columbia and the 1926–1927 National Capital Planning Commission Plan). Today it enhances the aesthetics of the capital city and the quality of life for its citizens.
- The Fort Circle Parks preserve significant natural features, including substantial acreage of mature native hardwood forest, geologic and aquatic resources, and a diversity of important habitat for indigenous flora and fauna that are unusual in an urban setting and that contribute to the uniqueness of the nation's capital.

INTERPRETIVE THEMES

The overall goal of interpretation is to ensure that all visitors have opportunities to make intellectual and emotional connections with the many meanings reflected in park resources. It is the public's direct and indirect exposure to park resources, their experiences, and the meanings and values they associate with the resources that provide their will for stewardship. Interpretive themes provide a framework for developing interpretive programs and media. They are derived from and reflect the purpose and significance of a park area. The following themes encompass the important stories to be told about the defense sites.

- During the Civil War, Washington was not only the national capital, it was also a symbol of the Union and the nerve center of Union military operations. The city was threatened throughout the war.
- Washington is in a topographic bowl, and the strategic heights around it had to be protected to prevent the enemy from locating cannons there and firing on the city. The system of forts was constructed on the elevated positions from which to fire at attacking enemy troops to give support to the flanks of the other forts and to protect the heights from enemy occupation.
- The defense sites contain green space that represents one of the earliest urban planning efforts for public recreation in the United States. This public space, or greenbelt, affords prominent views of the city, as recognized in the 1902 The Improvement of the Park System of the District of Columbia and in the subsequent National Capital Planning Commission Plan. Today the defense sites enhance the aesthetics of the nation's capital and the quality of life for its citizens and visitors.
- General Early's raid on Washington was the only Civil War battle in the District of Columbia and the only time a sitting U.S. president came under enemy fire.
- After the Civil War, the redistribution of land and facilities associated with the fort system affected the pattern of development of the city and the growth of unique urban neighborhoods and communities.
- The forts were proposed for protection as part of the 1902 The Improvement of the Park System of the District of Columbia "Fort Drive." Today they serve as important green spaces in the city.
- The Fort Circle Parks contain significant natural corridors that offer opportunities to learn about native flora, fauna, and other natural features in the urban area.

DESIRED VISITOR EXPERIENCE

Desired visitor experience statements describe the fundamental visitor experiences that the National Park Service most wants to facilitate at the Civil War defense sites. In planning facilities, exhibits, trails, waysides, activities, personal services, outreach, and publications, park staff would work to create and enhance the opportunities for these experiences. By facilitating a variety of opportunities for people to experience the parks in their own ways, the National Park Service hopes to foster in visitors a sense of stewardship for the Fort Circle Parks resources.

Visitors to the Fort Circle Parks should have the opportunity to do the following:

- interact with the Fort Circle Parks' cultural and natural resources in ways that do not damage or derogate those resources and provide safe, satisfying experiences
- readily access orientation and activityplanning information and easily find their way around park sites
- enjoy the park sites through passive and active recreational experiences in social or solitary ways
- learn about or simply enjoy the diversity of the sites' natural resources
- learn about and contemplate the Battle of Fort Stevens and the important role that the Civil War defenses played in the war
- appreciate the vulnerability of the sites'
 natural and cultural resources to human
 activities inside and outside park boundaries,
 and actively participate in helping to
 preserve and protect park resources
- interact with park employees and/or volunteers who are courteous and knowledgeable
- access interpretive information about the parks without visiting them
- continue learning about Fort Circle Parks resources after visiting the parks

DESIRED RESOURCE CONDITION

Preservation of the significant cultural and natural resources that make up the Fort Circle Parks is fundamental to an appreciation of the interpretive themes and the overall visitor experience. Although prescribed in law and National Park Service policy, the following would guide decision-making:

- earthworks would be maintained in accordance with the draft Guide to Sustainable Earthwork Management
- archeological resources would be inventoried and evaluated and an "Archeological Overview" produced
- management strategies and interpretive guidelines would be developed to resolve conflicts between the requirements for preservation and the impacts of interpretation and visitor use of the earthworks
- earthworks and other features would be mapped using global positioning and geographic information systems technologies
- cultural landscapes would be defined and measures taken to preserve those cultural landscapes consistent with the needs of other natural and cultural resources
- properties, sites, or landscapes within the
 Fort Circle Parks that are eligible for
 inclusion on the National Register of
 Historic Places in their own right would be
 identified these would be properties
 whose significance has been redefined in
 light of new information or a reevaluation of
 existing significance
- natural resources would be preserved to the extent possible consistent with the preservation of the cultural resources and appropriate measures taken to prevent avoidable damage to such resources
- measures would be undertaken to prevent vandalism through education and to quickly repair any damage identified

PLANNING ISSUES AND CHALLENGES

CULTURAL RESOURCE ISSUES

Balancing the desires of today's urban dwellers for recreation and aesthetically pleasing green space and the need to preserve and protect the remaining Fort Circle resources for future generations is a significant challenge for resource managers today.

Many of the fort sites, batteries, rifle trenches, and associated weaponry have disappeared from the landscape of the Fort Circle Parks. Much of the high ground surrounding the city has been impacted by development, although forests cover much of the Fort Circle Parks. These green spaces are a mere shadow of the once continuous protective shield that surrounded the nation's capital.

Today the remaining Civil War fort sites and associated earthworks have become important recreation areas for city residents. Local neighborhood parks have taken the place of military parade grounds and picnic shelters, and community gardens now occupy some of the high ground once diligently protected by Union soldiers. Some families have recognized certain fort sites as yearly gathering spots for reunions through generations. In some locations, inappropriate recreational activities are having a detrimental effect on the historic resources.

The challenges that exist today to preserve and protect the remaining cultural resources related to the Civil War lie in recognizing the changing face of the urban landscape. Land once considered indispensable for the protection of the nation's capital in the latter half of the 19th century has evolved into a landscape deemed indispensable for recreation and for the preservation of natural and historic resources in the crowded urban landscape of the 21st century.

NATURAL RESOURCE ISSUES

Natural resource issues include the invasion of native plant communities by aggressive exotic

plants, city development, stormwater runoff by uncontrolled runoff generated from impervious surfaces in the surrounding urban areas, soil compaction and erosion, and large-scale dumping of household and other wastes.

Preservation efforts to save the Civil War defenses could have a secondary negative effect on the sites' natural resources. Balancing the need for the preservation of historic sites and the preservation of natural areas within an urban setting challenges natural and cultural resource managers to reach mutually beneficial decisions related to the defense sites.

VISITOR USE ISSUES

Providing adequate and consistent interpretation, education, and visitor services at the defense sites is another challenge for park managers, as is balancing the demand for visitor use with the need for resource preservation. Many recreational visitors to one or more of the sites do not know that they are in a national park, nor do they recognize the individual park as being part of a larger system of parks that protect the remains of historic forts, batteries, and rifle trenches. Visitor services are extremely limited at most sites, with few restroom facilities, poor or inadequate signs, and no onsite orientation available. Few interpretive and educational programs are offered at the sites, and interpretive media is virtually nonexistent.

Another challenge to managers is to establish a balance between passive and informal recreational use of open spaces and intensive use by organized sports leagues. At some sites the sports leagues represent an influx of park users from outside the surrounding neighborhoods, whereas members of the local communities are more likely to use the parks for passive recreation such as picnics and children's play. Because there is a finite amount of green space in the District of Columbia, there is fierce competition among user groups for the use of such space.

Safety is also a major concern. Many neighbors to the sites are concerned that some forested and secluded areas provide cover for illicit activity. U.S. Park Police concur with this view. In addition, neighbors are concerned that preservation efforts will limit neighborhood uses of park areas such as community gardening and picnicking. Some people are also concerned that raising the profile of these parks will bring strangers into their neighborhoods, causing traffic congestion, parking problems, and other possible issues of concern.

PARK ADMINISTRATION/OPERATIONS ISSUES AND CHALLENGES

The Fort Circle Parks are managed by three different administrative units. Interpretive rangers and maintenance staffs of each of the

administering parks also work in the Fort Circle Parks. Whereas George Washington Memorial Parkway manages one fort site, Rock Creek Park and National Capital Parks-East manage multiple sites. This has created differing approaches and emphases to managing the fort sites among the three managing park units.

ISSUES BEYOND THE SCOPE OF THIS PLAN

This management plan does not address sitespecific planning or implementation strategies for each individual defense site. Rather, those plans and designs would be developed after this plan has been adopted and a strategy for management is in place. Related planning efforts are discussed in appendix C.



ALTERNATIVES *



INTRODUCTION

This Draft Management Plan / Environmental Assessment evaluates three alternatives that address concerns and issues regarding future management of the Fort Circle Parks. Purpose and significance statements, identification of significant resources, and input received during public meetings guided the development of the alternatives.

The alternatives that have been developed and analyzed, as well as those eliminated from further study, are described in this section. Elements common to all alternatives are discussed below.

ZONING

The National Park Service uses zoning to provide a framework for decisions on use and development. Each park is divided to indicate the specific management emphasis — recreation, natural, or cultural resource preservation, or special use — in that zone.

For each zone, "management prescriptions" are developed. Management prescriptions are an approach for administering or treating the resources or uses of a specified area based on desired outcomes. This section includes a description of all seven of the management prescriptions that could be applied to the Fort Circle Parks and each alternative has an accompanying map showing how the zoning has been applied.

Management prescriptions include target goals or objectives for one or more resources and/or visitor experiences that are present within the prescription area. The Fort Circle Parks consist of multiple zones with different management prescriptions.

The management prescriptions included in this section define the desired resource conditions and visitor experiences, including the appropriate kinds and levels of management, use, and development. Together, all the

management prescriptions in an alternative meet the goals of the Fort Circle Parks. The differences between alternatives are most visible in the sizes and configurations of management zones.

Different physical, biological, and social conditions are emphasized in each zone. The factors that define each management prescription are the desired visitor experience and the desired natural and cultural resource conditions. These factors then indicate the types of activities or facilities that are appropriate within the zone.

Regardless of the target visitor experience or resource condition, all management prescriptions conform to all park-specific purpose, significance, and mission goals and to the servicewide mandates and policies described earlier in this document. For example an archeological site would be protected regardless of the zone in which it occurred. However, the use of that site for interpretive or educational purposes could vary, depending on the management prescription to which its vicinity was assigned.

POTENTIAL MANAGEMENT PRESCRIPTIONS

Cultural Resource Zone

The cultural resource zone would contain lands that are managed primarily for the preservation, protection, and interpretation of their cultural resource values but could also require management consideration for the preservation of natural resource values.

Typically, these lands would include key cultural resources related to the significance and purposes of the park. Examples of such resources would be earthworks and any associated archeological features.

Desired Visitor Experience. Visitors would be offered the opportunity to learn about and contemplate the Civil War resources in the park and obtain a sense of their significance. Visitors would expect a low to moderate number of encounters with other park visitors and with NPS personnel. Visitors would learn about the resources mainly via brochure, waysides, or other nonpersonal services.

Desired Resource Condition. Archeological and historic features would be protected and preserved to the extent possible. All cultural resources within the zone would be documented and interpreted.

Cultural landscapes in this zone generally would be managed to reflect their historical design or to lend stability to ruins or remnant resources. Nonnative plant species generally would be avoided or used sparingly if consistent with management objectives.

Natural resources would be managed compatibly with cultural resource preservation procedures and programs. Natural processes would be maintained wherever possible.

Appropriate Kinds of Activities or

Facilities. Activities would be limited to those compatible with maintaining the integrity of the featured cultural and/or natural resources. Placement of facilities in these areas would be minimized to ensure preservation of archeological resources and to retain the existing (often natural) landscape surrounding the earthworks.

Connecting Corridor Zone

This zone would include those areas of the Fort Circle Parks that were purchased for construction of a parkway connecting fort resources. Historic earthworks would not be included in this zone. It would be made up mainly of small parcels of manicured lawn and trees maintained as green space.

This zone would provide a pleasant corridor through a mix of trees and open spaces with limited views of the surrounding city.

Landscapes would be maintained in a sustainable fashion, and the defining features of this zone would be preserved.

Desired Visitor Experience. Visitors would drive, bicycle, or walk along a well-maintained paved road, sidewalk, or designated trail (often unpaved) through the park. The experience would be linear and sequential in character. Visitors entering this zone would have a sense of decompression and relaxation. The visitor encounter rate with other visitors in the zone would be high at times, and temporarily heavy traffic would be accepted.

Desired Resource Condition. The landscape would be substantially modified compared to natural conditions. A mix of exotic and native plant materials are used to create an aesthetically pleasing landscape in keeping with the historic parkway design.

Appropriate Kinds of Activities or Facilities.

Visitor activities would include driving, bicycling, walking, jogging, and skating. Landscape management would be more intensive than in natural zones, including such activities as mowing and trimming, tree planting or removal, and exotic plant control. Some intersections or other points would be rehabilitated for visitor safety or aesthetics, but the redesign would avoid increasing the capacity of the roadway or encouraging increased speeds.

Recreation Zone

The recreation zone would include those areas where facilities for recreation have been developed or where specific activities have been designated. Examples include picnic areas, baseball, basketball, or softball/soccer fields, and community gardens. It would also include associated areas of parking. These would be relatively small nodes of intense activity within portions of the Fort Circle Parks

that are not associated with the Civil War defenses and do not contain earthworks or other historic or archeological resources. The background setting would consist of heavily manicured lawns and well-maintained vegetation and structures.

The community gardens would be set aside for use by neighborhood gardeners. Trails around or through this zone would provide visitors with a connection to other zones within Fort Circle Parks.

Desired Visitor Experience. The recreation zone would contain both areas of intense activity with large groups of people actively using the facilities or passively watching the activity of others, and areas of relative quiet where community gardens would be tilled as a comparatively solitary endeavor. There would be a high tolerance for noise and activity around ballfields and picnic areas in this zone with less in community gardens areas.

While most of the visitation in this zone would be local or regional, the national visitor would likely be passing through on a designated trail.

Desired Resource Condition. Ballfields and picnic areas would be intensively maintained to keep them in good condition while allowing for concentrated visitor use.

Community gardens would be carefully maintained and attractive. Tools, supplies, and other items necessary for gardening would be brought in and removed on a daily basis to maintain an attractive appearance.

Appropriate Activities and Facilities.

Organized and informal recreational activities would be the primary use of this zone. Facilities would be highly specialized and designed for high use. Parking and restroom facilities would be appropriate within this zone.

Community gardens would be a specialized area within the recreation zone. Utilities such as water could be provided.

Natural Resource Zone

This zone would include those areas of the Fort Circle Parks that are managed primarily to maintain forests and natural scenery but may contain cultural resources. Natural processes would predominate except where intervention is needed to protect or restore disturbed systems or to preserve cultural resources. Such areas would include stream valleys, woods, prominent forest corridors, and other sensitive natural areas not included within the cultural resource zone. Resources could be minimally modified for essential visitor needs such as trail improvements or for visitor or safety, but only following careful review of alternatives consistent with the environmental compliance process. The tolerance for resource degradation would be low. This would be the largest zone in the Fort Circle Parks.

Desired Visitor Experience. Visitors would have the opportunity to hike along a trail that allows them to feel as though they were in a forest without leaving the city. The visitor would follow an unpaved trail as opposed to the mostly paved sidewalks in the Connecting Corridor Zone. Scenic quality and natural sound would be essential. The probability of encountering other visitors and NPS staff would be moderate. Interpretive media would be as unobtrusive as possible and anchored to adjacent, more intensive use zones where possible. Some natural areas (stream valleys, topographically challenging areas) would remain free of new trails or development.

Desired Resource Condition. Natural processes would predominate, except when thorough examination of alternatives shows that some manipulation is necessary for safety, resource protection, or habitat restoration. The prominent forested ridgelines that serve as backdrop for the cityscape, are maintained as contiguous corridors. Clearings and new

facilities that interrupt these contiguous corridors are avoided if possible.

Appropriate Kinds of Activities or Facilities. Birding, walking, jogging, and nature study and appreciation would be the kinds of activities that would be undertaken in this zone. Appropriate facilities would be maintained, any new trails and maintenance roads would be unpaved. Orientation and subtle interpretive signs would also be appropriate, especially directly adjacent to more developed zones. Other structures would only be appropriate if required for preservation of cultural or natural resources.

Visitor Services Zone

The visitor services zone would be developed to provide information, orientation, interpretation, education, and other visitor services for the Fort Circle Parks. Such services could be provided within commercial structures outside park boundaries or within adapted historic or nonhistoric structures within any of the Fort Circle, Rock Creek, George Washington Memorial Parkway, or National Capital-East units. (If developed outside the boundaries of the Fort Circle units, there would be no need for this zone.)

Desired Visitor Experience. Visitor services would be safe, convenient, inviting, and easily accessible. They would provide the kind of orientation and interpretive background that would allow visitors to enjoy the Fort Circle Parks on their own or with a guide brochure, or take advantage of park programs that provide a greater understanding of the natural and cultural resources. The probability of encountering other visitors and park staff would be high.

Desired Resource Condition. Special attention in this zone would be paid to compatibility with surrounding park landscape, historical and natural features.

Appropriate Kinds of Activities or

Facilities. Appropriate to this zone would be kiosks, visitor centers, visitor contact stations, restrooms, staging areas, and small amphitheaters designed to provide orientation to the Fort Circle Parks, directions to other units, and interpretation of the overall importance of the forts. Parking areas might be appropriate at some sites. Any structures would blend with their natural and cultural environments.

Special Use Zone

The special use zone would encompass those areas of the Fort Circle Parks that are given over to facilities or uses not fully under National Park Service control. Examples would be the water reservoirs at forts Reno and Stanton, schools and playgrounds, the Anacostia museum, and recreational centers run by the District of Columbia.

Desired Visitor Experience. Visitor services in this zone would not be under the control of the National Park Service. Visitors may not be appropriate in some of these areas. Where visitors would be welcome, the experience would be compatible with the Fort Circle Parks experience — safe, convenient, inviting, and easily accessible. They would complement the experience within the other zones of the Fort Circle Parks.

Desired Resource Condition. To the extent possible, facilities within this zone would be designed to be compatible with surrounding park landscape and historic and natural features. Noise levels could be higher than those within other zones of the Fort Circle Parks.

Appropriate Kinds of Activities or Facilities. Appropriate activities in these areas would be those that are already permitted.

. 3

. ...

Administrative Zone

The administrative zone would include those NPS areas that are not normally seen by visitors such as maintenance areas, offices, and U.S. Park Police facilities but which are an important component of the Fort Circle Parks.

Desired Visitor Experience. Visitors would not be likely to spend time in these areas.

Desired Resource Condition. As this zone would contain support facilities, the administrative zone would consist mainly of areas of low natural and cultural resources integrity, such as previously disturbed or developed areas. These areas would be landscaped to be as unobtrusive as possible. Maintaining the scenic quality of the surrounding area would be important. Noise levels in these areas could be higher than elsewhere, particularly if maintenance activities are included.

Appropriate Kinds of Activities or Facilities. Facilities in this zone would be necessary to the operation of the Fort Circle Parks but not generally used by visitors, such as maintenance, maintenance storage, internal roads, offices, and staff parking.

ELEMENTS COMMON TO ALL ALTERNATIVES

The need for a comprehensive framework for cultural, natural, and recreational resource management and interpretation is recognized as a major component of this planning effort. The elements in this section are considered so important that they need to be carried out regardless of the management strategy ultimately chosen. The actions common to all alternatives are related to historic resource preservation planning (including specific park management plans), carrying capacity, safety issues, and access for visitors with disabilities.

Preservation Planning

The Fort Circle Parks contain remnants of forts, trenches, and earthworks that protected the nation's capital from Confederate attack during the Civil War. Most of the fort sites and related features were dismantled following the war or have slowly but steadily disappeared with the city's expansion.

The remaining 18 defense sites listed on the National Register of Historic Places consist mainly of earthworks and the remains of rifle trenches. The greenbelt-connecting corridor designated "Fort Circle Drive" by the National Capital Parks and Planning Commission reflects the original communication routes between the fort sites, as well as aspects of 20th century urban planning philosophies. (The District of Columbia historic preservation officer considers these green spaces eligible for listing in the National Register of Historic Places.)

In the 1930s the Civilian Conservation Corps reconstructed Fort Stevens, the most historically significant of the defense sites. Deterioration from natural elements and vandalism threaten the resources at Fort Stevens and many other sites. Although essential preservation needs have been met at some sites, portions of others have deteriorated to the point where preservation efforts are needed.

Recommendation: Park managers recognize that to properly maintain and interpret the defense system of historic, natural, and recreational resources, the National Park Service must take a holistic approach to its preservation. Therefore, managers from the three parks administering the defense sites would work together to develop a comprehensive preservation plan to address detailed protection and preservation needs at each site. The plan would also include criteria to identify those sites with the most immediate needs for stabilization and preservation. The plan also would outline cyclic maintenance

needs and schedules to meet preservation goals for all the park sites within the boundaries.

Park managers would also work together to plan and carry out other functions necessary to administering these sites holistically, such as managing cultural and natural resources, managing museum collections, and interpretation. To appropriately accomplish these management functions, the following plans are especially needed: a historic resource study; a comprehensive interpretive plan; a cultural landscape report; and an archeological overview and evaluation.

Historic Resource Study. On June 19, 1973, the District of Columbia Joint Commission on Landmarks designated the entire Fort Circle Parks as "Landmarks of the Nation's Capital." This designation included the forts themselves, along with the greenbelt connectors purchased by the National Capital Parks and Planning Commission for the "Fort Drive."

On July 15, 1974, the Fort Circle Parks were placed on the National Register of Historic Places.

On February 9, 1998, the District of Columbia historic preservation office reaffirmed the significance of the "civil war fort sites" and suggested that the "Fort Circle Park System" was eligible for the national register in its own right, citing the Fort Circle Parks system as a major element of the 1902 The Improvement of the Park System of the District of Columbia for the city of Washington.

A historic resource study is underway to identify the historic context for the development and evolution of the Civil War defenses of Washington. Information contained in the report will be used to update the national register nomination for the defenses and to identify the relationship of early urban planning efforts to the evolution of the fort sites and adjacent corridor surrounding the city of Washington.

Comprehensive Interpretive Plan. An interpretive plan is needed to guide development of interpretive programs specifically related to the defense sites. The plan would be used by staff and volunteers, in conjunction with the development of exhibits and wayside media. It would also provide specific guidance in the preparation of an exhibit plan.

In related NPS efforts, interpretive plans are underway for Rock Creek Park and Anacostia Park (a unit of National Capital Parks-East). Recommendations in those documents would supplement the more specific guidance of such a plan for the Fort Circle Parks.

Cultural Landscape Report. The National Park Service completed a cultural landscape inventory of the defense sites in 1996 (NPS 1996) as part of this planning effort. The work in the cultural landscape inventory lays the groundwork for completion of a cultural landscape report. The information in a cultural landscape report would provide the basis for any recommendations to amend the national register nomination, including contributing/noncontributing features, suggested treatments for cultural resource preservation, and the provision of management guidelines appropriate for national register properties. Potential vistas will be identified.

Archeological Inventory and Evaluation.

Associated with some of the earthworks were ancillary features or structures that served as encampments, signal corps facilities, and headquarters. Also possible could be evidence of hospitals or aid stations, temporary graves, or unmarked interments. Many of these show up on military maps of the period. However, whether such features still exist and their state of preservation, or even the impact of visitation on them, is unknown.

National Park Service policy and section 110 of the National Historic Preservation Act of 1966, as amended require that all cultural resources — archeological, historic, architectural, and landscape architectural — be

inventoried and evaluated for possible inclusion on the National Register of Historic Places. Until that can be completed, individual surveys of each area to be impacted by actions described in this plan would be undertaken. Archeological testing and other methods that utilize low-impact techniques would be undertaken at each site where ground disturbance would occur to minimize any possible adverse impact.

Visitor Use Study

A comprehensive visitor use study is needed to understand who the parks' visitors are and how they use the parks. Such a study would help the parks to meet visitor expectations and provide better services, more knowledgeable staff, and facilities appropriate to the needs of visitors. It would help to identify where park resources should be focused.

Carrying Capacity

No carrying capacity studies have been conducted for the Fort Circle Parks.

Visitor carrying capacity defines the appropriate level of resource use beyond which the resource is damaged. Each cultural or natural resource area is evaluated to determine how the resource is used and to identify indicators of possible damage. These indicators could be such things as erosion, extensive soil compaction, creation of "social trails" (informal trails), damage to trees, shrubs, or cultural resources, or an inability of visitors to properly enjoy the site due to crowding.

Carrying capacity is difficult to measure at most of the defense sites. Visitor access is difficult to control in urban parks. The use of the parklands associated with the sites is primarily by city residents living near the sites. In addition, the primary use on associated parklands is active recreation, rather than appreciation of the historic resources.

Although overcrowding does not appear to be an issue, misuse of the resources such as creation of new social trails and climbing on earthworks, is significant. This is an enforcement issue rather than a carrying capacity issue.

Recommendation: A carrying capacity study should be conducted for the Fort Circle Parks to better understand how visitors use each site, what visitor expectations and demands are, and to determine the impact of that visitation on each historic resource (see indicators described in the "Zoning" section).

Visitor Safety

Safety issues in Fort Circle Parks are of two basic varieties. First is the need for visitors to be safe while in the parks. Many of the large wooded areas are used for illicit activities, and visitors are legitimately concerned about their personal safety. The U.S. Park Police may need to increase their patrolling of the parks but cannot be expected to make them totally safe. As more activities are scheduled and more people use the parks, visitors will feel less uncomfortable.

The second safety concern is protection of visitors from slips, trips, and falls resulting from lack of maintenance or other unsafe conditions.

Recommendation: A study of possible activities at the Fort Circle Parks should be undertaken, in keeping with the historic and recreational significance of the parks. It is important to fill the parks with life in order to take them back for use by law-abiding citizens. Additional U.S. Park Police patrols should be undertaken.

Access for Visitors with Disabilities

A significant part of the mission of the National Park Service includes providing for visitor enjoyment. All visitors should enjoy NPS parks and facilities. These visitors come

ALTLERNATIVES

in all ages and capability levels. An increasing number have special physical needs and requirements to be able to enjoy our national parks.

As outlined in the NPS Management Policies (1988), the National Park Service will provide the highest feasible level of physical access for people with disabilities to historic properties, consistent with the preservation of the properties' significant historical attributes. Access modifications would be designed and installed to least affect the features of a property that contribute to its significance.

All nonhistoric buildings and structures associated with the Fort Circle Parks would be made fully accessible to people with disabilities, and every effort would be made to accommodate visitors with disabilities at the historic fort sites while balancing the maintenance of the historic integrity of each site. All visitor services would be adapted to accommodate visitors with special needs.

Recommendation: An evaluation of each site and facility should be undertaken to determine what actions would be necessary to enhance accessibility consonant with the preservation of significant resources.

ALTERNATIVE 1: MAINTAIN CURRENT MANAGEMENT

OVERVIEW

The focus of alternative 1 would be maintaining the Fort Circle Parks resources. No major changes in resource management, visitor programs, or park facilities would occur (see Alternative 1 map). This alternative would involve the minimal actions required to preserve and maintain the cultural and natural resources of the fort sites in accordance with the National Historic Preservation Act of 1966, as amended, and NPS Management Policies (1988) and Management Policies 2001 (2001). Actions described under this alternative would be in addition to those outlined in the "Actions Common to All Alternatives."

CULTURAL RESOURCE MANAGEMENT

Historic preservation and interpretation of the resources would remain limited to the identification of fort sites with wayside interpretive panels and established interpretive programs.

Because the park's human and financial resources are not focused solely on the Civil War resources, preservation efforts would continue to depend on competing priorities within existing parks. Additional fund requests for this purpose might not be successful.

NATURAL RESOURCE MANAGEMENT

Natural resources would continue to be managed as a greenbelt of mixed woodlands, meadows, and large mowed areas. The park sites that make up the defense sites system would continue to be linked by green spaces and existing trail and road segments.

Minimal vegetation management would continue, generally focusing on hazardous tree removal.

Park staff would continue to monitor water quality and habitat for rare, threatened, or endangered species. The park staff would continue to work with the district to minimize the effects of stormwater runoff.

RECREATION

Recreational use of the fort sites would continue to be accommodated along with concentrated recreational use at Fort Dupont and Fort Reno. Fort Reno would continue to be used as a space for organized and "pickup" sports and community gardening while preserving cultural and natural resources. Fort Dupont would continue to be used as a recreational area with picnicking, biking, hiking, jogging, ice-skating, organized team sports, birdwatching, summer concerts, and community gardens.

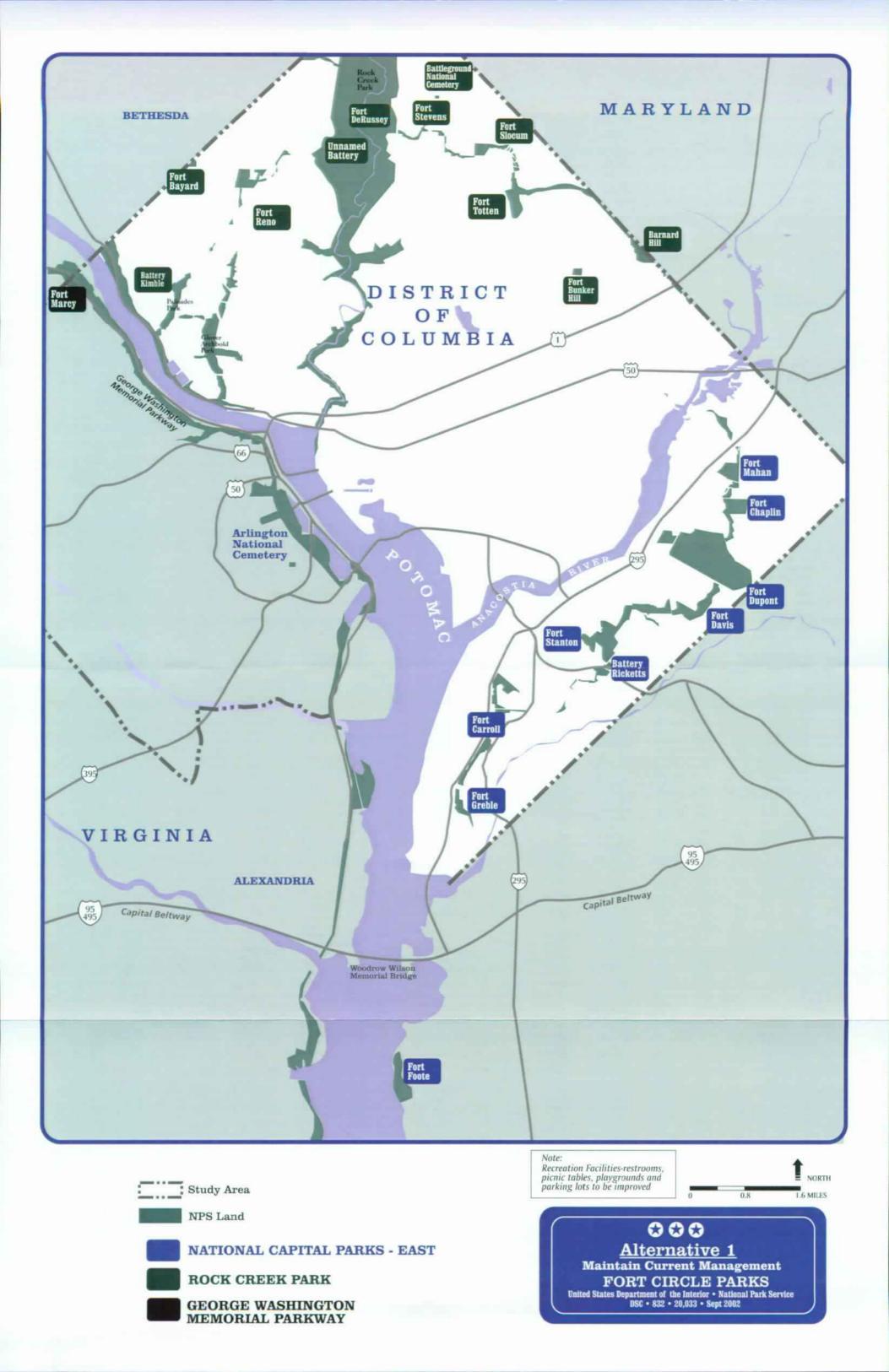
VISITOR USE AND DEVELOPMENT

Interpretation would continue to depend primarily on signs and wayside exhibits. Educational programs that link D.C. schools with the defense sites would be provided as funding allowed. Ranger presence at the sites would continue to be sporadic. Occasional interpretive tours would be conducted within available staffing levels.

The individual parks responsible for the Fort Circle Park sites would continue to work with local jurisdictions to discourage potential development outside the fort sites that would denigrate park resources.

PARK MANAGEMENT AND OPERATIONS

Management responsibility for the fort resources would continue to be divided among Rock Creek Park, National Capital Parks—East, and George Washington Memorial Parkway. Management approaches would vary within each park as projects competed for limited dollars. For a cost estimate, see appendix D.



ALTERNATIVE 2: RECONNECTING THE FORTS

OVERVIEW

A significant part of the mission of the National Park Service would be to improve local and regional recreation while also protecting the significant cultural and natural resources of the Fort Circle Parks. It would include designating a new foot trail linking some of the fort sites and the connecting green corridor of the Fort Circle Parks system (see Alternative 2 map and the Alternative 2 maps sections 1, 2, and 3.)

RECREATION

The main element of alternative 2 would be a trail linking the fort sites and connecting green corridor, beginning at the base of Palisades Park near Fletcher's Boat House on the C & O Canal and continuing to Fort Greble near the south end of the Shepherd Parkway.

Based on the history of Fort Circle Drive and its various incarnations over the past 90+ years, this trail would maintain the identity of the defenses of Washington as a "system" that protected the city and that, in our time, offers recreational opportunities for local residents and visitors. The trail would become the physical manifestation of the site's history.

Like previous planning efforts, this trail reflects the original proposal in the 1902 The Improvement of the Park System in the District of Columbia to preserve the original fort sites and maintain a greenbelt of parkland around the inner periphery of the District of Columbia. (NPS Civil War sites are listed in appendix E.)

The trail is proposed to extend the entire 23 ± miles around the city. Existing trail segments would be used, as would city sidewalks, with some minor construction on already disturbed areas. Appropriate signs would be placed along the greenbelt corridor, connecting most of the fort sites. It would also be a bicycle trail between Fort Totten and Fort Stanton, but the rest of the trail would be for walking only because of

the alternating urban and rustic nature of existing trails and the environmental and aesthetic changes such a combination trail would cause.

The first section of trail would begin at an existing trail from Fletcher's Boat House, leading through an enlarged tunnel under Canal Road into Palisades Park. However, until that tunnel enlargement under Canal Road can be completed, visitors would be directed to use the existing trail from the C & O Canal at the base of Glover Archbold Park.

The trail would extend to Battery Kemble Park, then backtrack 0.25 mile and connect to the Fulton Street/Edmunds Street connection to Glover Archbold Park (about 0.5 mile), then north through the park on the existing trail to Van Ness Street.

From Van Ness the trail would follow city sidewalks north to Fort Reno Park. From Fort Reno Park, visitors could take a side trail to Fort Bayard Park, using city sidewalks, or continue along city sidewalks and trail through sections of Fort Circle Parks land along Grant Road, 36th Street, and Broad Branch Road into Rock Creek Park.

On the west side of Rock Creek Park a new section of trail would be developed to connect with an existing trail along Glover Road. That trail would go north, crossing Military Road, to connect with the Fort DeRussy trail. A new trail would be constructed north and east to Fort Stevens Drive, where it would follow city sidewalks into Fort Stevens.

From Fort Stevens, visitors could take a side trail along city sidewalks to Battleground National Cemetery or walk east on city sidewalks along Quackenbos, 8th Street, Missouri Avenue, and Madison Street into Fort Slocum Park. Following trails in Fort Slocum Park, a visitor would reach a combination of city sidewalk and park trails along sections of Fort

Circle Parks land paralleling Oglethorpe Street and connecting to trail segments along McDonald Place, South Dakota Avenue, and First Place into Fort Totten Park, to link up with a small loop trail within the park leading to the Fort Totten earthworks.

1 13

Backtracking along the trail, visitors could exit Fort Totten Park along existing trails paralleling Gallatin and Galloway Streets to Michigan Avenue. At Michigan Avenue, there would be the option of following city sidewalks along Michigan Avenue to 13th Street, then south to Fort Bunker Hill Park and back to the main trail via city sidewalks along Otis Street, 18th Street, Perry Street, and 24th Street inside Barnard Hill Park. Otherwise, one could continue south along city sidewalks to the trail within Barnard Hill Park, exiting along sidewalks paralleling Eastern Avenue to Fort Lincoln New Town.

From Fort Lincoln New Town, the trail would cross New York Avenue and the railroad, winding along a combination of city sidewalk and new trail to a new Anacostia River footbridge near the National Arboretum at the foot of the Holly Springs Road in the Arboretum.

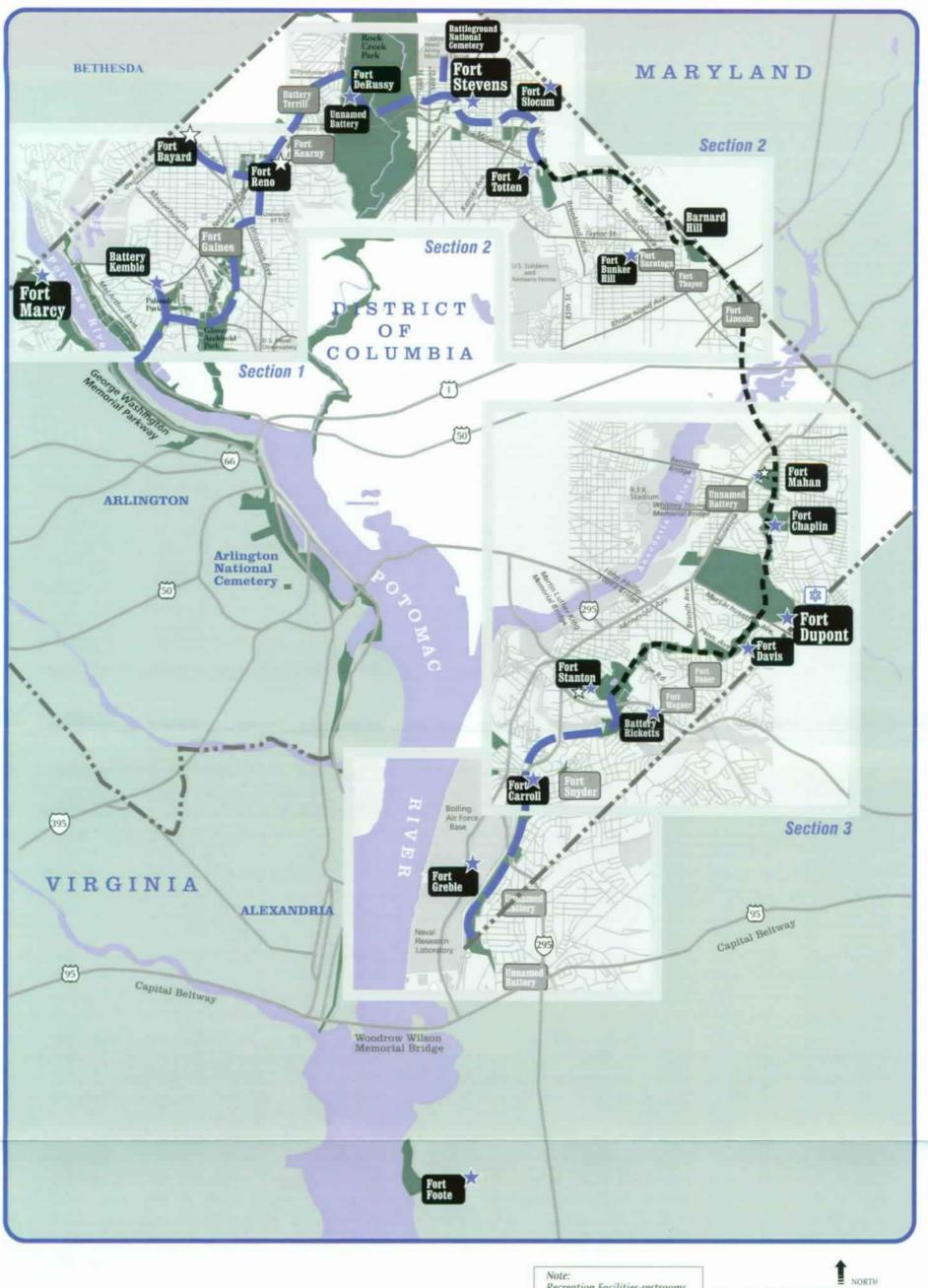
On the east side of the Anacostia River, the trail would enter Anacostia Park and attach to an existing trail paralleling the Watts Branch and Deane Street, under Kenilworth Avenue then parallel 42nd Street on an existing trail into Fort Mahan Park. An existing hiking/bicycle trail connecting Fort Mahan Park, Fort Chaplin Park, Fort Dupont Park, Fort Davis Park, and Fort Stanton Park would lead all the way to the Suitland Parkway. The hiking/biking trail would not be widened. From Suitland Parkway south to Fort Greble, a combination of new parkway bridge, trail, and city sidewalk would be constructed following Fort Circle land parcels into the Saint Elizabeth's Hospital property, exiting onto city sidewalks paralleling the Shepherd Parkway connecting with Fort Carroll, and ending at Fort Greble.

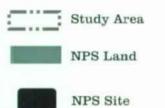
Along the trail route would be some areas where sidewalk would need to be replaced or constructed, where pushbutton streetlights would have to be installed to allow visitors to cross busy streets safely, and where bridges would be necessary to cross long expanses of water such as the Anacostia River or parkways such as the Suitland Parkway. In addition, a brochure would need to be issued to cover the trail route, and appropriate interpretive and directional signs would have to be installed along the trail.

Interpretive signs would be placed at appropriate intersections to guide users and to explain the historic communications and supply uses of the original connecting corridor between fort sites. Opportunities for traditionally passive forms of recreation, such as bird watching and nature walks, would also be enhanced by the trail improvements and through interpretation.

In addition to a designated walking trail to connect some of the fort sites and greenbelt, existing recreational opportunities and facilities would be improved where needed. Such improvements would include rehabilitating selected ballfields; basketball and tennis courts, picnic areas, and other existing facilities.

In 1989 Congress authorized the Potomac Heritage Trail, which will extend from Chesapeake Bay to Pennsylvania, connecting the cultural resources of the Potomac River corridor. A city council resolution directed the mayor to develop a plan for an alignment of the Potomac Heritage Trail in Washington D.C. Congress designated the C & O Canal a segment of the trail; however, the concept of the Potomac Heritage Trail is that of a braided trail system that can be composed of side trails as well. Thus, the Fort Circle Trail could be made part of the Potomac Heritage Trail if the District of Columbia nominated it to the secretary of the interior.





Non NPS ownership



NPS Earthworks (existing)



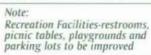
NPS Earthworks (no longer extant)



Walking trail (Route shown is conceptual)

SP2

Fort Dupont Improvements

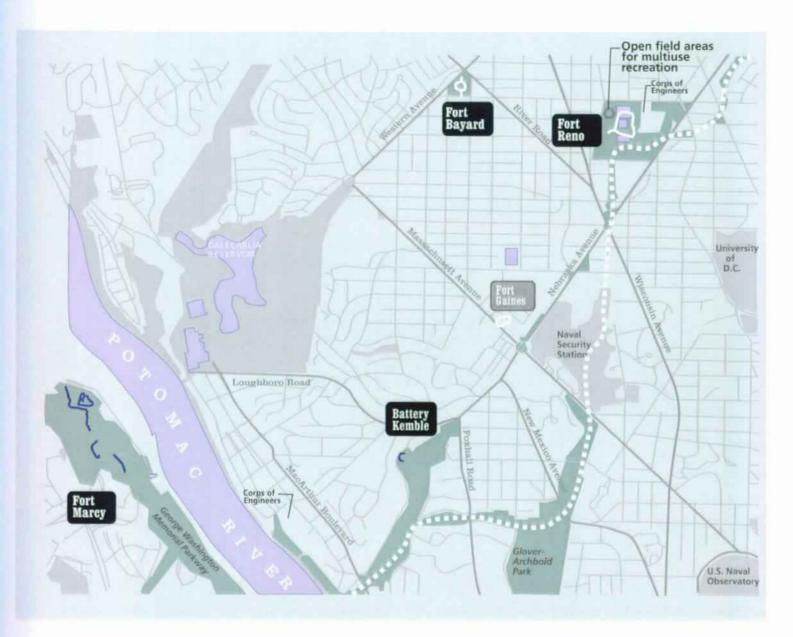






Alternative 2
Reconnecting the Forts

FORT CIRCLE PARKS
United States Department of the Interior • National Park Service
DSC • 832 • 20,042 • Sept 2002







Fort Circle Parks Boundary



Earthworks (existing)



Earthworks (presumed location)

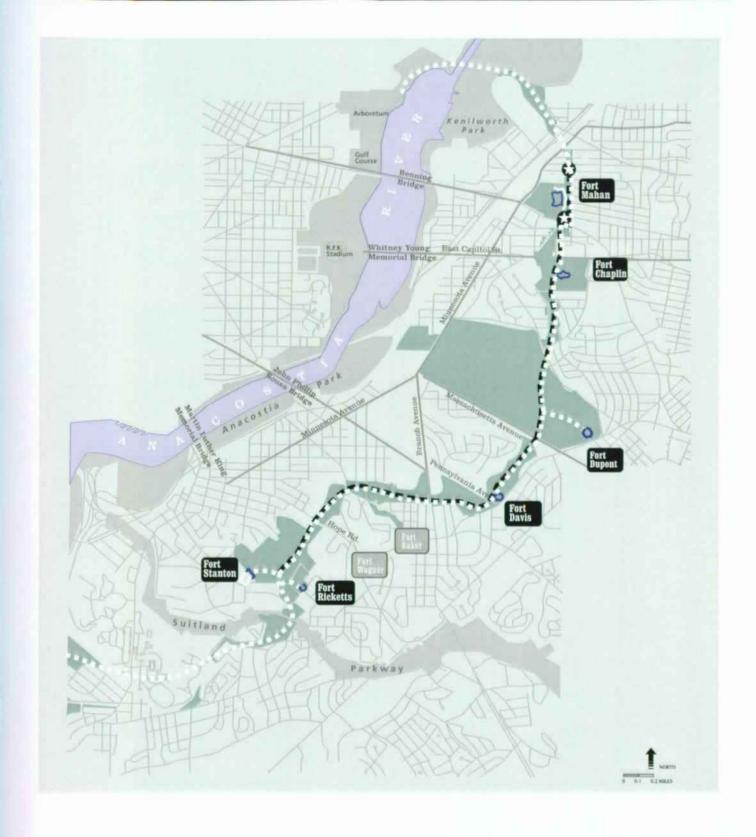


Self-guided walking tour (Construct trail where feasible route shown is conceptual.) 000

Alternative 2 (Section 1)
Reconnecting the Forts
FORT CIRCLE PARKS

United States Department of the Interior • National Park Service DSC • 832 • 20,034 • Sept 2002







Existing trail



Fort Boundary



Self-Guided Walking Tour (Rehabilitate trail where necessary-route shown is conceptual)



Earthworks (existing)



Interpretive Sign (along trail where feasible)



Earthworks (presumed location)



Alternative 2 (Section 3)
Reconnecting the Forts

FORT CIRCLE PARKS
United States Department of the Interior • National Park Service
DSC • 832 • 20,036 • Sept 2002

CULTURAL RESOURCE MANAGEMENT

The historic preservation of the forts would include earthwork stabilization and vegetation management. Historic preservation would also involve clearing vegetation from selected areas in Fort Foote and Fort Totten following archeological evaluation to enhance interpretation of the critical role the system of forts played during the Civil War. The CCC-era reconstruction of Fort Stevens would be preserved and Fort Stevens recommended for national recognition as a national battlefield, national historic landmark, or national historic site in its own right.

A walking tour of the battle of Fort Stevens, between Battleground National Cemetery and Fort Stevens, would be developed to encourage use of the proposed side trail to the National Cemetery. A brochure would be prepared to interpret the defense sites system, the significance of the Battle of Fort Stevens, and the evolution of preservation efforts related to the fort sites and the greenbelt connecting them.

NATURAL RESOURCE MANAGEMENT

Natural resources would be managed to maintain the greenbelt for historic preservation, natural and scenic features, and visitor safety.

Recreational improvements in areas zoned "natural" would be designed to ensure that adverse impacts on natural resources would be avoided or minimized. Improvements would be developed to take advantage of the latest available natural resource information. Vegetation management would be carried out in accordance with NPS natural resource management policies and guidelines.

Park staff would continue to monitor water quality, habitat for rare, threatened, or endangered species, and would work with the District to improve stormwater management.

VISITOR USE AND DEVELOPMENT

Existing services such as restrooms, picnic tables, and parking lots would be improved to raise the quality of the visitor experience. The three parks would make a coordinated effort to develop a Fort Circle Parks logo and to purchase similar signs, site furniture, and interpretive materials as a way to make the Fort Circle Parks more visible and let visitors know when they are in the Fort Circle Parks. Additional law enforcement patrols would be required to help ensure a safe visit for park users.

Interpretation of the defense sites would consist of upgrading existing interpretive wayside exhibits and revising existing brochures. A visitor information kiosk at Fort Marcy would offer visitors information about the Fort Circle Parks. A walking tour of the Battle of Fort Stevens would be developed to link that site to Battle-ground National Cemetery (see map: Battle of Fort Stevens Walking Tour).

PARK MANAGEMENT AND OPERATIONS

Although the management of the defense sites would remain under the three separate parks, the sites would have a single comprehensive management plan to provide a framework for consistent maintenance, interpretation, resource management, and other aspects of operations.

Funding and staffing would continue to be managed by each respective park. However, both funding and staffing would be coordinated among the parks to ensure that the level of maintenance, facilities, and recreational opportunities would be similar across park boundaries and that the visitor experience would be seamless regardless of park boundaries.

Maintenance staff would increase by approximately five positions. Interpretive staff would not increase because the focus of this alternative would place the emphasis on self-guided exploration. For a cost estimate, see appendix D.

ALTERNATIVE 3: CIVIL WAR DEFENSES OF WASHINGTON

OVERVIEW

Alternative 3 would focus on historic preservation and interpretation of the Civil War defenses of Washington, with special emphasis on the battle of Fort Stevens. Visitor use would be managed to be compatible with the protection of significant cultural and natural resources of the park, including linking sites through interpretation, designating auto tour routes, and producing a driving tour guide and other publications (see Alternative 3 map and the Alternative 3 maps sections 1, 2, 3, and 4). These Civil War sites are significant because they effectively protected the nation's capital from Confederate attack, influencing the outcome of the Civil War.

The Fort Circle defenses and the natural areas that have grown up around them have become part of the local cityscape and now function as community parks. The National Park Service would need to offer interpretation and educational programming so that all visitors could experience park resources in ways compatible with the preservation of the resources. Opportunities should be provided for visitors to make personal connections with the historic events these sites commemorate.

In keeping with the significance of the Civil War earthworks, and in an effort to give new focus to the resources, the name Fort Circle Parks would be changed following review and approval by Congress to Civil War Defenses of Washington. Visitors would then understand that the park is a historical park dealing with the Civil War.

CULTURAL RESOURCE MANAGEMENT

The focus for managing cultural resources in the Fort Circle Parks would be on the national significance of the battle of Fort Stevens and the ring of forts and batteries that protected the city during the Civil War. Other foci would be on the

communities and neighborhoods that developed around the fort sites, on the activities of the Civilian Conservation Corps (CCC) at various sites during the 1930s, the McMillan Plan, and early 20th century city planning and parks/parkway design concepts.

Preservation actions for historic resources would include stabilizing earthworks; erosion control; vegetation management; and restoring the CCC (Civilian Conservation Corps) reconstruction of Fort Stevens.

NATURAL RESOURCE MANAGEMENT

Natural resources would be managed to maintain the greenbelt around the city for its natural, cultural, and scenic values. Preservation actions would include emphasizing the removal of exotic vegetation to ensure habitat for native plant and animal species, retaining the forest canopy over earthworks, and surveying and monitoring park boundaries to prevent encroachments. Other preservation actions would be taking steps to eliminate illegal dumping, managing stormwater, controlling erosion, and monitoring adjacent land use and zoning to protect park resources.

Opportunities to correct stormwater impacts from nonpark sources would be sought and implemented, and feasible environmental enhancements would be undertaken. These actions would improve the opportunities for interpreting natural resources.

RECREATION

Existing recreational opportunities and facilities would be improved where needed. Such improvements would include rehabilitating selected ballfields; basketball and tennis courts; picnic areas; and other existing facilities.

VISITOR USE AND DEVELOPMENT

A comprehensive interpretive plan would be developed for the Fort Circle Parks that would call for partnerships with Monocacy National Battlefield and other Civil War sites (such as Fort Ward), both federally and nonfederally managed (see appendix C). It would provide plans for interpretive staffing, visitor center exhibits, publications, wayside exhibits, and other interpretive media such as a video and an audio-tour tape.

The three parks would make a coordinated effort to develop a logo and to purchase similar signs, site furniture, and interpretive materials as a way to make the Fort Circle Parks more visible and let visitors know when they are in the Fort Circle Parks.

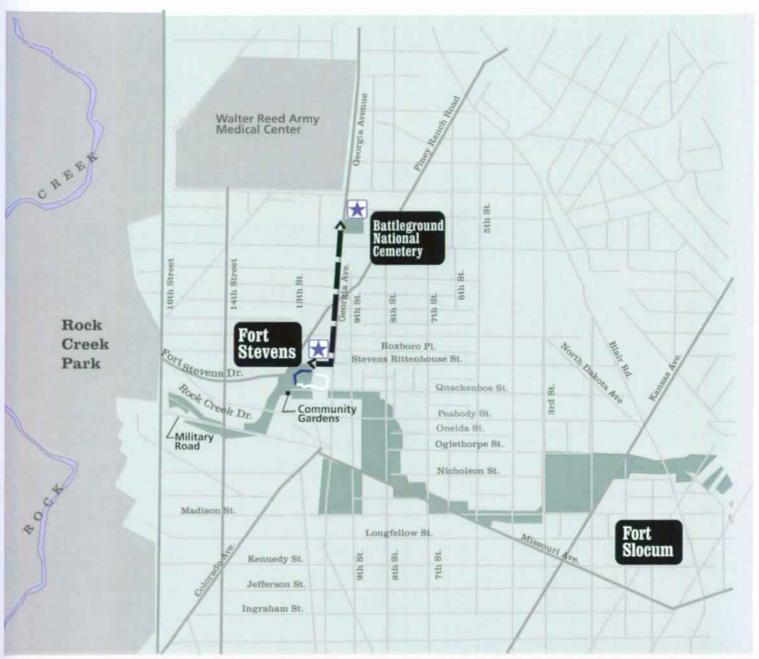
A small year-round visitor contact facility would be developed in the vicinity of Fort Stevens. This would become a focal point of the system, offering visitor orientation and interpretation and serving as the start of a driving tour of the forts. Possible sites for the contact station include the right-of-way on Quackenbos Street, the Military Road Schoolhouse, or a commercially available space nearby.

Fort Marcy would be a key location for introducing national visitors to the fort system because of its prominent location on the George Washington Memorial Parkway. This would not be a new structure, but rather a change in the interpretive focus to emphasize the entire system of forts and to encourage people to visit them. The activity center at Fort Dupont would be developed into an education center for school and community groups, offering cultural history and environmental education programming. The education center would also promote community partnerships, helping schools within walking distance of the fort sites to use these areas as local outdoor classrooms for cultural and environmental education and service learning projects.

A kiosk near the earthworks at Fort Dupont would serve as a site from which the fortifications of the southern and eastern quadrants could be interpreted. It would be a central, easily accessible location for visitors to learn about the forts and how to find them and as a starting place for their exploration.

PARK MANAGEMENT AND OPERATIONS

Management responsibility for the fort resources would continue to be divided among Rock Creek Park, National Capital Parks-East, and George Washington Memorial Parkway. However, both funding and staffing needs would be coordinated among the parks to ensure that the level of maintenance, facilities, and interpretation is similar across park boundaries and that the visitor experience is seamless regardless of park boundaries. As a result, the staff would have to be increased for proposed year-round contact facilities to offer orientation and interpretive programs focusing on the history of the forts. Funding would also have to be increased for preservation, stabilization, and restoration activities and for new staff. For a cost estimate, see appendix D.





Fort Circle Parks Boundary



Earthworks (existing)



Earthworks (presumed location)



Interpretive Sign (along trail where feasible)



Battle of Fort Stevens Walking Tour

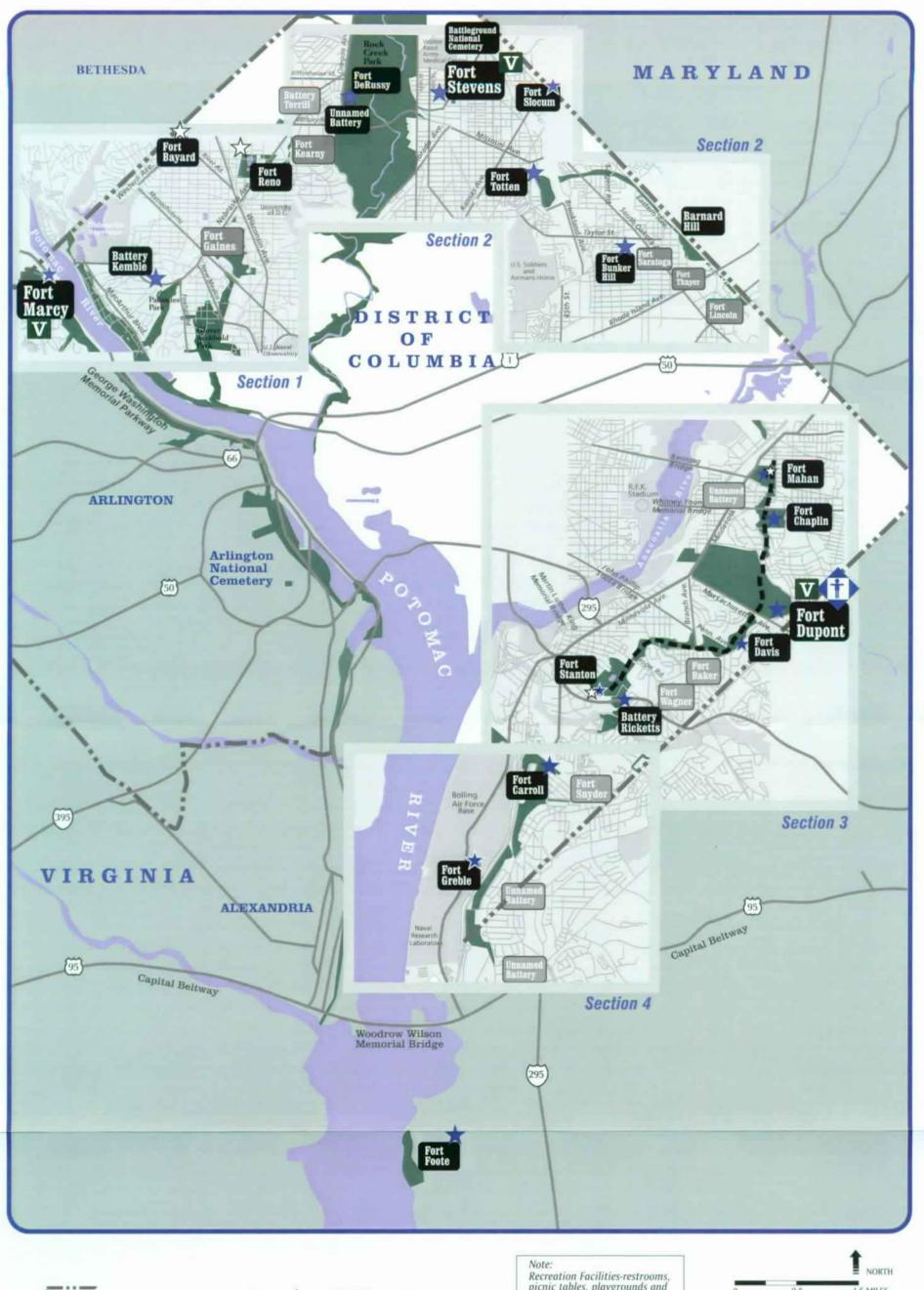


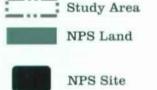
Interpretive Sign



Battle of Fort Stevens Walking Tour FORT CIRCLE PARKS

United States Department of the Interior • National Park Service DSC • 832 • 20,041A • Sept 2002





Non NPS ownership

Existing trail (Hiking / Biking)



NPS Earthworks (Existing)



NPS Earthworks (no longer extant)



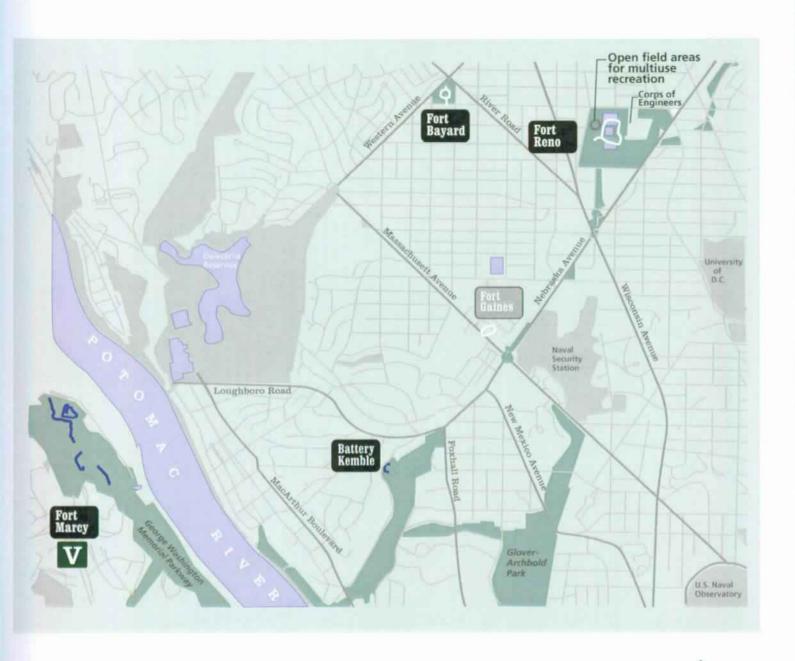
Proposed Visitor Contact Facilities



Activity Center/ **Education Center** Recreation Facilities-restrooms, picnic tables, playgrounds and parking lots to be improved











Fort Circle Parks Boundary



Earthworks (existing)



Earthworks (presumed location)

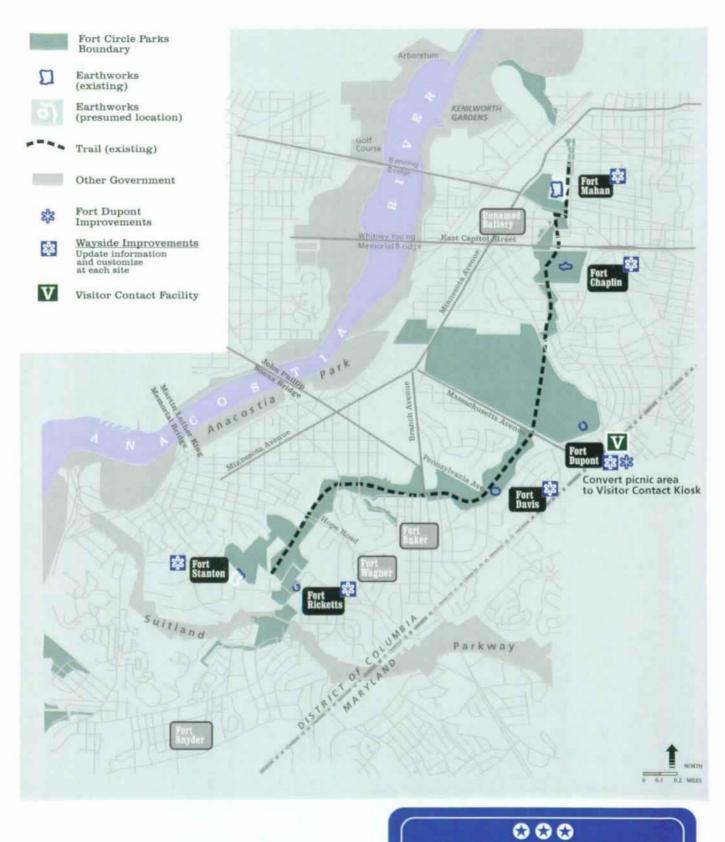


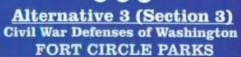
Visitor Contact Facility



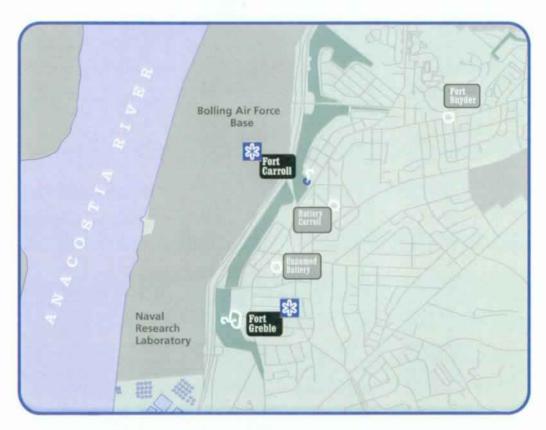
Alternative 3 (Section 1) Civil War Defenses of Washington FORT CIRCLE PARKS
United States Department of the Interior • National Park Service
DSC • 832 • 20,037 • Sept 2002

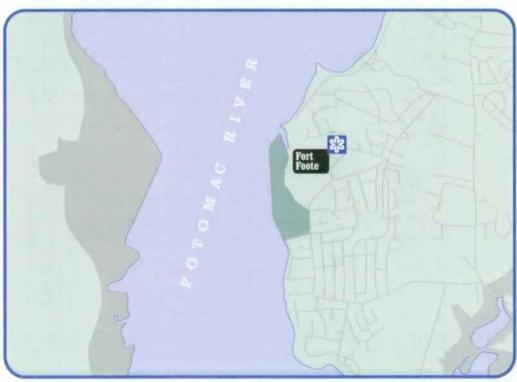






United States Department of the Interior • National Park Service DSC • 832 • 20,039 • Sept 2002





Fort Circle Parks Boundary

Other Government Lands

Earthworks (existing)

Earthworks (presumed location)

Wayside Improvements
Update information and customize at each CWDW site



Alternative 3 (Section 4)
Civil War Defenses of Washington
FORT CIRCLE PARKS

FORT CIRCLE PARKS
United States Department of the Interior • National Park Service
DSC • 832 • 20,040 • Sept 2002

ALTERNATIVES CONSIDERED BUT NOT ANALYZED FURTHER

OVERVIEW

Planning for the preservation and use of the forts and their associated lands has been a long ongoing process that has evolved with changing urban realities and priorities. A proposal to establish a "Fort Drive," a road including connections with some of the Civil War fortifications, was included in the District of Columbia Highway Plan of 1898. Starting around the turn of the century, there were numerous efforts to preserve at least some of the forts, including congressional consideration of bills to establish a Fort Stevens-Lincoln National Military Park (NPS 1996). Most of the major proposals of these early actions have not been implemented, but they included elements that merited consideration in the development of the present alternatives.

THE FORT DRIVE

A parkway connecting the fort sites, to be known as the Fort Drive, was an important component of early 20th century plans for the city of Washington. Much of the land needed to construct the drive was originally acquired. However, efforts to construct the drive met strong community opposition, and the proposal did not receive congressional funding for construction. By 1962 it was concluded that the parkway was no longer a valid concept because of changed urban conditions, right-of-way limitations, and traffic increases on the cross streets that the road would have intersected. The conditions precluding the development of a parkway have continued to the present.

CONTINUOUS BICYCLE/FOOT TRAIL

In the 1960s a study by the National Capital Planning Commission, with the cooperation of the National Park Service, recommended that the original Fort Drive concept be revisited and that the parkway be developed as a "fort park system" emphasizing park recreation. One of the

"bicycle and pedestrian way," which would have been a significant recreational asset. Such a bicycle/hiking trail would have provided access to the other recreational and cultural opportunities (Fred Tuemmler and Asso. 1965).

The National Park Service followed this concept and prepared the Fort Circle Parks Master Plan in 1968. This plan was approved in 1974, and detailed plans were prepared for the continuous bikeway and foot trail. However, few sections were actually constructed. A "hiker-biker" trail approximately 3 miles long was constructed through the eastern section of the fort parks, connecting Fort Mahan, Fort Chaplin, Fort Dupont, Fort Davis, and Fort Stanton. In 1971 this trail, the only part of the proposed trail ever constructed, was designated a national recreation trail.

Completing the bicycle portion of the bicycle and pedestrian way was contemplated during the planning for this document, but it was determined to be undesirable for several reasons. Palisade Park, Glover Archbold Park, and Rock Creek Park are intimate in scale, with narrow, often one-lane paths. In some places visitors must step from stone to stone or climb a steep set of stairs. Making those trails fully accessible for bicycles would have required additional bridges, and switchbacks or tunnels would have been needed. This would have resulted in a loss of the sense of wildness that currently exists. Trails in those three parks would have had to be widened to 10 feet to accommodate both hikers and bicyclists. (The 10-foot width is the minimum width recommended by the American Association of State Highway Transportation Officials for a shared use trail.)

Some trees would have had to be removed, and some excavation and construction of walls along the valley slopes would have been necessary. Larger, more substantial bridges would have been needed. The trails would have had to be paved, and this would have significantly

changed the appearance and character of the trails that now exist.

The portions of the hiker-biker trail existing within National Capital Parks—East would have required upgrading to the same standards as those for the new sections of trail. These standards have changed since the hiker-biker trail was constructed, and that trail, too, would have had to be widened and paved to be consistent with the new sections. This would have resulted in some of the same impacts noted above. The right-of-way in some residential areas is so narrow that more land would have had to be acquired to construct a bikeway to NPS standards.

RESTORATION/RECONSTRUCTION OF FORTS

The National Park Service Management Policies define three levels of treatment for archeological historic structures that would be applicable to the Fort Circle Parks earthworks, from preservation to reconstruction.

Preservation allows a structure to be preserved in its present condition provided that (1) satisfactory protection, maintenance, use, and interpretation can be achieved or (2) another treatment is warranted but cannot be accomplished until some future time. Stabilization is one such treatment.

Restoration allows a structure to be returned to an earlier appearance provided that (1) restoration is essential to public understanding of the cultural associations of the park, and (2) sufficient data exist to permit restoration with minimal conjecture.

Reconstruction produces a new structure identical in form, features, and details to a historic structure that no longer exists. It can be implemented when (1) it is essential to public understanding of the cultural associations of the park established for that purpose, (2) sufficient data exist to permit reconstruction on the original site with minimal conjecture, and (3)

significant archeological resources will be preserved in situ or their research values will be realized through data recovery.

Restoring selected forts was an alternative mentioned during the public involvement process, but it was rejected from consideration. Although the existing fort resources no longer contain a high percentage of their original historic fabric, drawings of each fort exist in the National Archives, which would make restoration feasible. However, considering the amount of historic fabric remaining, the result, if done, might have been closer to reconstruction rather than restoration.

The National Park Service considers reconstruction always a last-resort measure for addressing management objectives. Policy reviews and specific approvals would be required for the reconstruction of the forts. Such reconstruction would have resulted in the damage or destruction of the remaining original fabric. Extensive archeological investigation and mitigation would have been required before construction, and the whole process would have been very costly. In addition, reconstructed sites would be more likely to attract vandalism.

The National Park Service has restored or reconstructed earthworks at many NPS areas within a two-hour drive of Washington, D.C., notably Fredericksburg and Spotsylvania County Battlefields National Military Park, Richmond National Battlefield Park, and Petersburg National Battlefield. Fort Ward Museum and Historic Site, owned and operated by the city of Alexandria, Virginia, has been partially reconstructed and is within a 45 minute drive of most locations in the Fort Circle Parks. Fort Ward, although it is not part of the Fort Circle Parks, was one of the forts that originally made up the Civil War defense system of Washington. With ample opportunity to see a restored military earthwork in the Washington area, further restoration or reconstruction of any Fort Circle earthworks seems unnecessary.

A secondary reason for rejecting this alternative is that to restore forts that are in a forested

environment, large numbers of trees would have had to be removed and some wildlife habitat would have been eliminated. In addition, such restoration would have eliminated the forested canopy that provides a scenic backdrop to the nation's capital.

ESTABLISHING A SEPARATE NPS UNIT

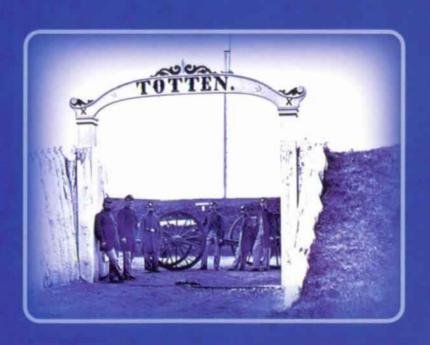
The establishment of a separate national park system unit for the Fort Circle Parks was briefly evaluated. It was dismissed from consideration for the following reasons:

- Although the forts were listed on the National Register of Historic Places on July 15, 1974, and the national register boundary was expanded September 13, 1978, the significance level was "local" rather than the "national" or "national landmark" level of significance normally required for a property to become a unit of the National Park Service in its own right.
- The properties are being preserved at present as part of their current respective park affiliations and are in no danger of loss or destruction.
- Interpretation and visitor use of the sites can be coordinated across the three existing parks without the need to create a separate park unit.

 The operation and management of the individual fortification remnants, covering all four quadrants of the city, would have been unwieldy and logistically difficult to maintain. There would have been a redundancy with other units in the city, and the actions would have resulted in duplication of resources.

MAJOR VISITOR CENTER

Consideration was given to establishing a major visitor center that would interpret the overall theme of Washington, D.C., during the Civil War. This objective has merit but is somewhat beyond the scope of this plan. In the future, additional consideration should be given to coordinating National Park Service and other resources related to the Civil War. At present, Fort Ward in Alexandria, Virginia, is providing a museum related to the Civil War defenses of Washington. This presents an excellent introduction to the fort system, and it should not be duplicated elsewhere by the National Park Service.



AFFECTED *
ENVIRONMENT *



THE SETTING

The individual park units of the Fort Circle Parks are dispersed around the District of Columbia, with one site each in Prince Georges County, Maryland, and Fairfax County, Virginia. The sites are used primarily as community parks, but some sites are visited by tourists with a particular interest in the Civil War. Because of the broad spatial distribution of the fort parks in the city, the neighborhoods around these sites vary widely.

DISTRICT OF COLUMBIA

Washington, D.C., is divided into political subdivisions called wards. Voting members of each ward elect representatives to the city council and the board of education. Each ward is divided into advisory neighborhood commission areas. Advisory neighborhood commissions advise the District government on public policy, zoning, public improvements, licenses, and permits that have significance to local neighborhoods.

The defense sites are in six of the eight wards. The wards have been created with fairly equal populations, ranging between 72,000 and 80,000. The population densities of the wards vary, depending on the acreage. Of the six wards with defense sites, ward 6 has 2,437 acres and a population density of 30 residents per total acres, while ward 3 has 4,746 acres and a density of 16 residents per residential acre. Each of these six wards has a character of its own.

Ward 3

Ward 3 contains Fort DeRussy, Fort Reno, Fort Bayard, and Battery Kemble. The ward also contains part of Rock Creek Park and the area west of the park. Residential areas and commercial development along Wisconsin and Connecticut Avenues characterize ward 3. The population density is the lowest in the city and the real estate values are the highest, with 97% of single-family houses assessed at more than

\$200,000, compared to 30% for the total District. Ward 3 landmarks include the National Cathedral, American University, the University of the District of Columbia, the U.S. Naval Observatory, and many foreign embassies.

Fort DeRussy is in Rock Creek Park, in an area zoned for forest preservation near the intersection of Military Road and Oregon Avenue. An interpretive sign marks a trail leading to the fort, and parking is provided for a few cars. A plaque on a boulder has been placed at the well-preserved fort earthworks. The park is most often visited by hikers, joggers, and equestrians using the park trails. Residential neighborhoods are in the vicinity. A smaller number of visitors are interested in the Civil War resources. Saint John's College High School is across Oregon Avenue, and a retirement home is nearby on Military Road.

Fort Reno is in a heavily urbanized area along the Wisconsin Avenue commercial district. The park is two blocks from the Tenleytown Metro stop and is also accessible by bus. Wilson Senior High School and Deal Junior High School both border the park. Other neighbors are mostly private residences. The historic fort has been completely replaced by the construction of a reservoir, and present-day activities at Fort Reno are primarily recreational. Facilities include a small concert bandstand, community gardens, tennis courts and multi-use fields that host baseball and soccer league games. The water system is surrounded by fencing and under city management. The ballfields are in another area of Fort Reno and pose no security risk to the water system.

Fort Bayard is in a residential area at the intersection of River Road and Western Avenue, the boundary line with Montgomery County, Maryland. There are minimal remains of the fort, and the community uses the park for a playground and an informal ballfield.

Battery Kemble is a long, narrow park of woods and open areas along Chain Bridge Road between Nebraska Avenue and Canal Road. There are public and private schools nearby, and American University is about three blocks away. The surrounding area contains mostly upperincome single-family residences, and park neighbors are the main users of the site. The park contains a recreational trail and picnic tables. The dirt entry road is in poor condition. A problem at the site is that with many visitors bring their dogs to the park to run.

Ward 4

Ward 4 contains Fort Stevens, Battleground National Cemetery, Fort Slocum, and Fort Totten. The ward occupies the northernmost corner of the District and straddles northwest and northeast Washington. Many of the area's largest health care facilities are in ward 4, including Walter Reed Army Medical Center, U.S. Soldiers' and Airmen's Home, Veterans Administration Hospital, Washington Hospital Center, Children's Hospital National Medical Center, and the National Rehabilitation Hospital. With 87% of its land used for housing, ward 4 has the highest percentage of residential land uses in the District.

Fort Stevens lies north of Military Road between 13th Street and Georgia Avenue in an area surrounded by heavy urban traffic. Georgia Avenue, which is a commercial artery, is the corridor along which the Confederate Army marched on the fort from Silver Spring, Maryland, to the north. Two churches adjoin the fort, and a community garden is on park property across 13th Street. The fort, which was partially reconstructed by the Civilian Conservation Corps in the 1930s, is the only earthworks in the system covered by grass. The fort site contains reproduction cannons, plaques, and a monument commemorating President Lincoln's presence at the Battle of Fort Stevens.

Battleground National Cemetery is on Georgia Avenue in an urban area several blocks north of Fort Stevens. This historic national military cemetery contains 41 headstones of soldiers who fought in the battle. The site also has a caretaker's lodge, covered rostrum, a flagpole, and monuments.

Fort Slocum lies just north of Missouri Avenue along Kansas Avenue in a Northwest Washington residential neighborhood. The park is wooded with areas of grassy open space that attract informal neighborhood use. Facilities include a picnic pavilion and ballfield. Remnants of the earthworks exist in the woods.

Fort Totten, which is surrounded by busy roads, is just south of Riggs Road and just east of North Capital Street. The park is bordered on the east by the tracks for Metro, MARC commuter trains, and other trains. The Fort Totten Metro stop just below the park connects to the park by a path that is adjacent to community gardens. A concrete mixing company and a garbage collection and compressing site also are in this area. In addition, single-family homes and apartment buildings are nearby. The park, a mostly wooded site with some fields, contains an extensive original system of earthwork forts, trenches, and batteries. Recreational activities include picnicking and extensive use as a mountain bike course.

Ward 5

Ward 5, in the northern portion of northeast Washington, contains the Fort Circle Strip along Gallatin and Galloway Streets, Fort Bunker Hill, and Barnard Hill. The ward is bounded on the north by Prince Georges County, Maryland, and on the east by the Anacostia River. A number of major transportation and commuter routes traverse the ward. Surrounding neighborhoods are established and well maintained.

Fort Circle Strip, the strip of mowed fields and woods along Gallatin and Galloway Streets and extending east between Gallatin Street and Eastern Avenue, contains no historic resources. The land, originally acquired for the Fort Drive right-of-way, is now used by adjacent residential communities for informal recreation.

Fort Bunker Hill is in the Brookland neighborhood, which contains many wood frame single-

family houses. The site is near the Franciscan monastery and a number of other Catholic institutions. The park is a small wooded area with open space that contains partial remains of the fort. One picnic table and a small amphitheater are at the site.

Barnard Hill is along Eastern Avenue, the boundary with Prince Georges County, Maryland. The park, which is at the eastern end of the Fort Circle Strip, consists of mixed woods and fields with a loop road through a large picnic area and playing field. People who live in the adjacent residential neighborhoods use the park for informal recreation. The area was never a fort site, and there are no historic resources.

Ward 6

Ward 6 contains acreage south of ward 5 in northeast Washington on both sides of the Anacostia River, a small portion of northwest Washington, and an area east of the river in southeast Washington. The southeast area contains Fort Stanton and Battery (Fort) Ricketts. Most of the Ward east of the Anacostia River is included in the Anacostia Development Zone, where the District government is promoting economic development, jobs, and homeownership. The Old Anacostia neighborhood, which has existed since the early 1800s, is designated a historic district.

Fort Stanton is a largely wooded undeveloped open space that is accessed and bordered by Bruce Place. The communities of Fort Stanton, Buena Vista, and Garfield Heights surround the park. Adjacent to the park are a D.C. recreational facility (a swimming pool, tennis courts, playing fields, and a recreation center), the Smithsonian's Anacostia Museum, and Our Lady of Perpetual Help Church. Partial ruins of a substantial fort site and views of the fort system are visible from the church parking lot. The park contains a District reservoir and the hiking/biking trail connecting the fort sites to the north ends at the park.

Battery (Fort) Ricketts is a small wooded undeveloped open space contiguous with Fort

Stanton. Adjacent to small apartment buildings, it includes a small picnic area and pavilion used mostly by neighboring residents.

Ward 7

Ward 7, in the eastern corner of the District, is bounded by the Anacostia River on the west and Prince Georges County, Maryland, on the east. About half the land area in the ward is tax exempt, with the federal government owning 1,454 acres. Most of this is park land; it includes Fort Davis, Fort Dupont, Fort Chaplin, and Fort Mahan.

Fort Davis is at the intersection of Pennsylvania and Alabama Avenues. Single-family homes and several large apartment buildings border the park. Fort Davis Drive and the hiking/biking trail pass through a long narrow strip of wooded and grassy open space. Ruins of the small fort are on a hilltop at the site. The park, which contains a basketball court, receives informal neighborhood use.

Fort Dupont is the second largest park area in the District (after Rock Creek Park). Major streets bounding the park are Minnesota Avenue, Pennsylvania Avenue, Alabama Avenue, and Ridge Road. The neighborhoods around the park contain a range of dwelling types, from singlefamily homes to public housing developments.

Fort Dupont is a large open space of mixed forest, fields, and transition areas with recreational and educational facilities. Facilities available in the park are picnic areas, community gardens, an activity center, a nature discovery room, a large summer amphitheater, multiple playing fields, an ice rink, and an interpretive trail. In addition to the hiking/biking trail a series of access roads, including Fort Davis, Fort Dupont, and Randall Drives, traverse the park. A picnic area at the eastern end of the park is adjacent to the small fort ruins. The park is a major recreation area that attracts visitors from local communities and from other localities around the region. The former 18-hole golf course closed in 1972 from lack of use; it is now overgrown through natural succession.

Fort Chaplin lies north of Fort Dupont along East Capitol Street. It is surrounded by large apartment buildings with a D.C. recreation center at its eastern end and a police station across East Capitol Street. The park is a wooded open space with large fort ruins in the woods. A District day camp is in a small clearing on the edge of the park. The hiking/biking trail traverses through the park, but there are no trails to the fort. Neighborhood youths use the park for recreational activities, and tables are available for picnicking.

Fort Mahan is just north of Fort Chaplin at Minnesota Avenue, Benning Road, and 42nd Street. A commercial strip and single-family homes surround the park, and large apartment buildings, both privately and publicly owned, are nearby. An adjacent school has closed and is now operating as a D.C. recreation center. The park is a mix of woods and field, with a football field replacing most of the hilltop fort. Facilities include a perimeter trail, hiking/biking trail, and picnic tables. There is sparse use of the park by the community.

Ward 8

Ward 8, in southeast and southwest Washington, is the southernmost area of the District. The Ward has the smallest percentage (24%) of taxable land in the city because of the presence of St. Elizabeth's Hospital, Bolling Air Force base, Blue Plains Wastewater Treatment Plant, and D.C. Village. The parkland includes Fort Greble and Fort Carroll. Most of Ward 8 lies in the Alabama Avenue, D.C. Village, or Anacostia development zones.

Fort Greble lies along and above the east side of the Anacostia Freeway (Interstate 295) and can be accessed on Chesapeake Street from South Capitol Street. The fort is at the top of a sloped wooded corridor along the interstate. Remains of rifle trenches are in the woods. The District has adjacent playing fields and recreational facilities. The community uses the area for informal recreation.

Fort Carroll is a small area north of Fort Greble and is also part of the wooded corridor along I-295. No trails or other facilities are available, and the park is little used. Remains of rifle trenches are in woods at the site.

MARYLAND

Fort Foote lies in a wooded corridor above the Potomac River, south of the District of Columbia in Prince Georges County, Maryland. It is in a suburban, almost rural area of Fort Washington, Maryland. Nearby neighborhoods are racially integrated communities of working class and middle class residents. A school is approximately 1 mile away, and county recreation facilities are in the vicinity. The park has limited parking and picnic tables, and there are no restrooms or water. The fort contains original Rodman guns, and the earthworks are extant but overgrown by vegetation. A series of wayside signs provide interpretive information. Fishing is a popular activity in the park, and well-used trails lead to the river. Visitors also come to walk in the woods, enjoy the river view, and picnic. Illegal dumping in the park causes a problem.

VIRGINIA

Fort Marcy is in Arlington County, Virginia, across the Potomac River from Washington, D.C. It is in the wooded corridor along George Washington Memorial Parkway, between the parkway and Chain Bridge Road (Route 123). The site is in a sparsely populated upper class area across Chain Bridge Road from the Saudi Arabian consulate and large homes. The closest residential communities are approximately 0.5 mile away. McLean, about 5 miles away, is the nearest community; it offers commercial development, schools, churches, a library, and a community center. There is a parking lot at the fort site, which can be reached from the parkway by automobile. There is a walk-in entrance from Chain Bridge Road but no parking area near that entrance. The site receives little community use, and most visitors are tourists or visitors with interest in the Civil War or enjoyment of the natural environment.

CULTURAL RESOURCES

HISTORICAL OVERVIEW

Washington, D.C., sat virtually defenseless at the beginning of the Civil War, surrounded by Confederate Virginia and hostile prosecessionist forces in the slave-holding state of Maryland. The imminent danger to the capital after the first Battle of Manassas in 1861 heightened fears about its security and led to the construction of a system of forts and batteries to protect the city from enemy attack. Communication corridors and rifle pits linked the major works in a 37-mile defensive perimeter. The extensive fort system discouraged a Confederate attack on Washington until General Jubal Early's desperate offensive in July of 1864.

The capital's security had first become an issue during the War of 1812, when a British attack pointedly illustrated the city's defensive liabilities. British troops humiliated the United States by burning the White House and the Capitol. To deter future naval attacks, the army rebuilt and expanded Fort Washington at a strategic position along the Potomac River.

Civil War

Forty-seven years later the capital city would once again be threatened by enemy attack, but this time by land-based forces, against which Fort Washington provided little protection. After defeating the Federal army at Manassas, the Confederates contemplated an attack on Washington. However, the rebels were nearly as disorganized by victory as Union forces were by defeat. Confederate military leaders weighed this factor, as well as natural obstacles like the Potomac River and the city's existing defenses in deciding to defer an assault.

Nonetheless, Washington was still vulnerable to a determined offensive. Gen. Irvin McDowell ordered Maj. John G. Barnard, a Corps of Engineers officer, to oversee the planning and construction of the new defenses. Major Barnard combined a sense of urgency with his engineering expertise in designing the city's fortifications.

Citing the law of "military necessity," the army took possession of the fort sites, unconcerned with landowners' property rights. "Lines of rifle pits, massive earthworks, and military roads were located with little regard to cultivated fields, orchards, or even dwellings and churches" (Cooling and Owen 1988). Barnard chose the high ground where defenders could best deter an enemy attack.

Army engineers clearcut the forests surrounding the fort sites for miles around. Troops involved in building the fortifications marveled at the systematic clearing of the forests to establish sight lines and accommodate rifle and cannon fire (NPS 1996).

Dirt berms formed the fort and battery walls. Logs reinforced the interior ramparts. Inside the forts, the bombproofs — earth-covered rooms lined with wood — sheltered gun crews. Embrasures cut in the top of the fort walls provided ports for artillery pieces. A steep slope led down to a dry moat. Beyond this ditch an abatis, a barricade of fallen trees with sharpened branches, bristled outward to confound attacking infantry. Engineers laid out the defensive works in accordance with D. H. Mahan's guide, A Treatise on Field Fortifications, the premier fortification construction guide of the time. (NPS 1996).

By 1865 the defenses consisted of 68 enclosed forts and armed batteries encircling 37 miles. There were also 93 unarmed batteries and 20 miles of rifle pits. Washington was quite possibly the most heavily fortified city in the world.

In the summer of 1864, Confederate Gen. Jubal Early launched an attack on Washington intended to divert the Union Army assaulting Petersburg, near Richmond. On July 11 and 12, 1864, Early's forces attacked Fort Stevens.

While observing the battle, President Lincoln became the only president to come under direct combat fire while in office.

Union forces suffered 266 casualties during the two-day battle. Confederate losses are unknown, but over 100 severely wounded soldiers were left in Silver Spring, Maryland. After the battle, a little more than an acre of the Fort Stevens battlefield was designated as the site for a cemetery. Forty-one of the 59 Union defenders killed in action were buried in a circle in the cemetery. Today Battleground National Cemetery is one of the smallest Civil War cemeteries in the United States.

After Early's raid, the Confederacy never again threatened the capital. Following the war, Washington returned to the business of running the country. The capital also faced the task of accommodating new populations of discharged soldiers and freed slaves in search of a new way of life.

Postwar Washington

The War Department dismantled many of the fort sites and returned much of the land to its former owners. Landowner claims eventually reached almost 1,000 (NPS 1996). If land had been owned by Confederate sympathizers, it was sold at auction. In exchange for the timbered high ground they had sacrificed for the war effort, displaced landowners received deforested land covered with useless earthen walls and army buildings.

The U.S. government retained some fort sites for a brief time, including Fort Totten, Fort Slocum, Fort Stanton, Fort Lincoln, Fort Stevens, Fort Sumner, Fort Whipple, Fort Ellsworth, Fort Carroll, and Fort Reno. Fort Foote was deeded to the United States in 1872–73.

Newly freed slaves, veterans of the U.S. Colored Infantry, and other African Americans formed communities on or adjacent to the former Civil War fort sites. The Freedman's Bureau, established after the war, helped African-

Americans find housing and employment in Washington. The community that formed in the army barracks at Arlington housed many former slaves. The houses were "not much bigger than the cabins they had occupied as slaves," but the village contained schools, a tailor shop, a wash house, an orphanage, and a hospital (NPS 1996).

As fort sites were returned to their former owners or became homes for newly freed slaves and others in need of shelter, the Civil War defenses began to disappear from the district's landscape. New development to meet the influx of new residents during the late 1800s and at the turn of the century reclaimed many of the sites. Remaining sites deteriorated from the lack of maintenance and erosion.

Preserving the Forts

By the 1890s individuals and organizations initiated efforts to preserve some of the district's fort sites. Most of these efforts focused on Fort Stevens, which had absorbed the brunt of Early's assault. Despite growing public support, however, Congress ultimately failed to pass bills creating a Fort Stevens-Lincoln National Military Park. Other preservation advocates pushed for the creation of a "Fort Drive," which would connect some of the defense sites as it wound through the district's suburbs.

Attention to the sites and recognition of their importance to the city and the nation gained significant momentum with the establishment of the Senate Park Commission on the Improvement of the Park System in 1901. The commission was directed to appraise the L'Enfant plan and make recommendations for the development of additional park space.

The commission recognized the importance of the high ground upon which the fort sites had been constructed and the possibilities of creating a park along the ridges that might create "a northern park circuit of great interest . . . having views off into the country in contrast with the principal inner circuit of larger parks, presenting views chiefly south toward the city. In the section east of the Anacostia River a similar chain of hilltop forts marks the points of most commanding view" (as quoted by Handly in NPS 1996).

Although the vision of a scenic parkway encircling the capital was never fully realized, the city continued to acquire park lands through most of the first half of the 20th century, keeping the idea alive. More than any other planning effort in Washington, the Senate Park Commission's recommendations have influenced National Park Service and National Capital Planning Commission park planning. Although urban development, increased traffic, and socioeconomic trends have changed the landscape of Washington and the surrounding areas in the last 96 years, the Senate Park Commission Report is still considered in any planning efforts related to the Fort Circle Parks.

Current NPS Sites

National Park Service sites today include the remains of 18 fort sites, including earthworks, rifle trenches, and fort ruins. In addition, the National Park Service maintains the connecting greenbelt corridor. These sites commemorate the Civil War defense system that kept Confederate invaders at bay on two hot July days in 1864.

ARCHEOLOGICAL RESOURCES

No complete archeological inventory meeting the requirements of section 110 of the National Historic Preservation Act of 1966, as amended, has been undertaken for the properties making up Fort Circle Parks. To date, the National Park Service has done only site-specific testing before major ground disturbing activities.

Archeological resources that could be expected would be associated with military use of the sites, early farming and commercial activities, and park development.

URBAN THREATS

There are a number of activities occurring at the earthworks that jeopardize their existence. Several of the earthworks have become popular with trail bike users who see them as a sort of obstacle course. Treasure hunters with metal detectors and amateur archeologists see the sites as logical places to practice their skills. Informal trails have developed on the earthworks that increase the natural erosion.

HISTORIC RESOURCES

The historic resources of the Fort Circle Parks include fort sites, rifle trenches, and earthworks remaining from the original defense system. The 18 fort sites in National Park Service ownership are listed on the National Register of Historic Places (7/15/74; 9/13/78).

The District of Columbia historic preservation officer considers the greenbelt corridor connecting the sites eligible for listing on the national register in its own right for its role in 20th century urban planning. It is being treated as if it were listed until the national register nomination form can be rewritten to describe its significance and identify the significant defining features.

Completing a cultural landscape report would aid in compiling the needed information to clarify questions about the context and history of the connecting greenbelt corridor and the evolution of Washington's Civil War defenses during the 20th century.

CULTURAL LANDSCAPES

Several elements contribute to the cultural landscape of the Fort Circle Parks, including the natural environment and topography where the fort sites were located; the use of natural materials and manipulation (destruction) of the existing forest; and the evolution of the landscape through urban development strategies (or lack thereof) in the 20th century.

AFFECTED ENVIRONMENT

Today, the rivers and cliff terraces still exist and are contributing features as they provided the significant geographic physical characteristics of the cultural landscape. Forest cover has grown up on the sites linking significant numbers of the forts with green open space corridors. The forts, batteries, and rifle pits have become overgrown with a variety of mainly deciduous vegetation, primarily through mostly natural succession (NPS 1996).

The evolution of the landscape since the Civil War is an important element of the cultural landscape of the fort system. People continue to recognize the importance of the land once occupied by the forts. Today's mix of historic preservation, natural resource elements, and recreational use reflect the needs of today's society superimposed on the historic and natural background used during the Civil War.

VIEWSHEDS

Sight lines were key to locating and constructing the earthworks during the Civil War. Today those sight lines are somewhat reversed. Where once soldiers looked out from the high ground toward Maryland and Virginia to protect the city in the "bowl" below, today's citizens look up at the forested ridge. During the Civil War, views between the forts were essential for communication with the use of signaling flags.

Views from many of the earthworks are no longer available, as trees and vegetation have grown up. However, several of the high points do have panoramic views of the city. The National Park Service would work with the District of Columbia Zoning Commission and Office of Planning to preserve these views, as well as reciprocal views used for signalling, from being obscured by development on the park perimeters.

NATURAL RESOURCES

INTRODUCTION

The forested ridges that make up the rim of the "topographic bowl" that nearly surrounds Washington, D.C., were ideal for locating a system of forts to protect the Union capital during the Civil War. The actual remains of the field fortifications are typically situated at or near the highest points topographically. As such, they are at the top of their respective watersheds. However, the adjacent park lands and the linking corridors between the forts vary topographically; they include steep stream valleys and level terraces.

During the Civil War, the forests were cut down, sometimes for as much as 2 miles away. One account described all the trees on a slope being notched, after which the trees at the top of the slope were felled, causing all the trees below to fall in domino fashion.

Much of the land that was acquired as park land has reforested considerably since the Civil War. This has occurred even more over the past 20 years of tight budgets. Indeed, some of the Fort Circle Parks forests are among the least disturbed forests in the city.

The Senate Park Commission Report recognized the magnificent views looking into the city, that the Civil War defenses provided — hence, plans for the creation of a park. Today the mostly forested greenbelt also has become very important for the opposite scene — views looking out from the city's center, often to a forested horizon. The forests that have developed in the parks have become a wonderful backdrop to the otherwise heavily urbanized landscape; breaking up the pavement, steel, and glass with woodlands. Within these forest communities, an impressive array of plant and animal species indigenous to the District of Columbia can be found, thus making the Fort Circle Parks a vital area for preserving important components of Washington's natural heritage.

Information on the natural resources of the Fort Circle Parks is incomplete. No systematic natural resource study or ecological survey has been done of the entire system of the Fort Circle parks and open spaces. However, the subject areas are covered by local soil surveys, and there are some natural resource surveys at various sites being administered by the parks.

GEOLOGY AND SOILS

The Fort Circle earthworks were placed on the ridgeline overlooking Washington. The strategic high ground stretches between two considerably different geologic terrains: the Piedmont Plateau to the north and west, and the Atlantic Coastal Plain to the east.

Soils throughout the circle of fortifications are generally well drained. Soil conditions range from moderately stable to significantly erosion-prone. Therefore, care is required in the placement of trails and other developments. The soils of the Piedmont Plateau are underlain with crystalline rock, and those of the Atlantic Coastal Plain are underlain with clayey sediments. In the Atlantic Coastal Plain portion of Fort Circle Parks, in the eastern half of the city, soil drainage must be seriously considered with any development. Poor and/or altered drainage has resulted in mass slippage and slope failures in some park areas.

VEGETATION

The flora of the Fort Circle Parks range from highly manipulated landscapes of turf to meadows, pine woods and other transitional plant communities, to mature remnants of eastern deciduous forests. Turf areas require intensive maintenance, primarily with regard to regular mowing on a two-week cycle during the growing seasons. Selected meadows are mowed on an annual basis; others are being allowed to revert, through natural processes, into forest. Forested areas of the defense sites are managed

as natural zones and generally are left to grow "naturally" with minimal active management.

Some forests of the defense sites, like Fort Bunker Hill, are isolated tracts, surrounded by city neighborhoods; others, like Fort Davis, are narrow woodland corridors. Still others, particularly Fort DeRussy in Rock Creek Park, are but small parts of much larger forests. Red, white, and chestnut oaks, red maples, tulip poplar, American beech, Virginia pine, American holly, flowering dogwood, mountain laurel, arrowwood viburnum, poison ivy, greenbriar, pipsissewa, cranefly orchid, and spring beauty are a few of the locally native species found in forest areas within the Fort Circle Parks.

Some sites have been disturbed very little since Civil War times. These areas often support impressive forest communities with large, mature trees, few invasive exotic (nonnative) species, and highly diverse native plant communities. Such areas function well ecologically and are extremely important and valuable habitats. Preserving these natural areas is a primary objective of the National Park Service. Conversely, some portions of the Fort Circle Parks have been all but taken over by aggressive exotic plants such as Japanese honeysuckle, kudzu, Asiatic bittersweet, and porcelainberry. In such areas, native species are seriously threatened, or may be already totally displaced.

WILDLIFE

Wildlife consists of deer, fox (red and gray), Virginia opossum, raccoon, eastern cottontail rabbit, muskrat, eastern gray squirrel, eastern chipmunk, black rat snake, red-backed salamander, other small mammals, and a few species of reptiles and amphibians. Feral dogs and cats currently compete with, and presumably prey upon, native wildlife.

A wide variety of bird species use areas of the Fort Circle Parks; as migratory rest-stops, for seasonal breeding, and as a year-round residence. In addition to the common city species and backyard songbirds, birds of prey and

interior forest-dwelling neotropical migrant birds live in the parks. A few of the notable bird species that have been observed in the Fort Circle Parks are barred owl, downy woodpecker, pileated woodpecker, yellow-bellied sapsucker, white-breasted nuthatch, bobwhite, chimney swift, fox sparrow, rose-breasted grosbeak, eastern phoebe, black and white warbler, yellow-rumped warbler, scarlet tanager, winter wren, hermit thrush, and the official bird of the District of Columbia, the wood thrush.

THREATENED AND ENDANGERED SPECIES

The U.S. Fish and Wildlife Service and state agencies in the commonwealth of Virginia and state of Maryland were consulted about threatened and endangered species and species of special concern in the vicinities of the defense sites. The U.S. Fish and Wildlife Service has records of 4 vascular plant species of concern and 9 invertebrate species of concern in Fairfax County, Virginia.

The amphipod Stygobromus tenuis, which was being considered for inclusion on the U. S. Fish and Wildlife Service endangered species list, inhabits a small spring seep in Fort Mahan, as does the recently discovered copepod Attheyella spinipes. Similarly, Stygobromus pizzinii, a state-listed species, can be found in a seep along Pimmit Run near Fort Marcy. The new species Acanthocyclops columbiensis was discovered in a spring at Fort Stanton.

The Hays Spring amphipod was discovered in Rock Creek Park in 1998. Earlier, another rare species, Kenk's amphipod, also known as the Rock Creek groundwater amphipod, (Stygobromus kenki), was identified in park springs. Kenk's amphipod is not currently listed under the Endangered Species Act, but it is under consideration by the U.S. Fish and Wildlife Service for future listing. In addition, three other Stygobromus species of amphipods that are listed by the state of Maryland as rare or uncommon have been located in or near the park.

Washington, D.C., does not currently provide special protection status for rare plant or animal species. However, both Maryland and Virginia list seven plant species that are documented as occurring in Rock Creek Park as "highly state rare — critically imperiled" and 21 species that are documented as occurring in Rock Creek Park as "watch list — rare or uncommon."

Federally listed bald eagles (Haliaeetus leuco-cephalus) often use the Potomac and Anacostia Rivers as flyways, and it is not unusual for them to be seen in the areas of Fort Foote and Fort Marcy. According to park staff, bald eagles are known to be nesting and utilizing these sites.

The Department of Game and Inland Fisheries of the commonwealth of Virginia has a historic record of the state threatened wood turtle occurring in Pimmit Run near Fort Marcy. The state special concern brown thrasher also has been observed in the general area. According to the Virginia Department of Conservation and Recreation biological and conservation data system, 16 natural heritage plant resources potentially occur in the vicinity of Fort Marcy. The data system also has records of suitable habitat for the wood turtle in the area. The wood turtle inhabits forested floodplains and nearby fields, wet meadows, and farmlands. This species overwinters on the bottoms of creeks and streams.

The District of Columbia Natural Heritage Program and the National Capital Region Conservation Data Center database contains a list of 13 additional rare plant species occurring near Fort Foote and one near Battery Kemble. A 0.5-mile radius was used to search sites in the District, and a 1-mile radius was searched around Fort Foote and Fort Marcy. No records were found of Fort Bayard, Dupont, Barnard Hill, Chaplin, and Davis.

WATER RESOURCES

The Fort Circle Parks contain the floodways of creeks within Palisades Park, Glover Archbold Park, and Rock Creek Park, and several within

National Capital East such as Piney Run and Watts Branch. The floodways are narrow and steep with short-lived periods of flood. Stormwater outfalls occur within the valleys increasing the velocity of streams and causing erosion along streambanks. Except for trails and associated bridges, there are no park developments within these narrow valleys.

Some areas of the Fort Circle Parks, such as the stream valleys, are lower than the surrounding city. As such, they are often subject to urban runoff problems. Sudden high-energy flows generated from all the surrounding impervious cityscape erode stream channels, causing sedimentation and adversely affecting water quality and aquatic biota in the associated drainages. Opportunities to correct stormwater impacts from nonpark sources should be sought and undertaken, but they are difficult to identify because there is a lack of undeveloped space outside the parks and also because of an impression that park land is an appropriate location for such stormwater management facilities.

There are several streams in the Fort Circle Parks. Typically, these streams are small and practically void of aquatic life because of the adverse effects of the impacts mentioned above. However, some small spring seeps that feed many of these streams support an abundance of aquatic micro-invertebrates, such as copepods and amphipods. A longer stream system exists in Fort Dupont Park, and it is recognized as one of the best tributaries in the Anacostia River watershed because of its protection within the park.

Extensive wetlands that are home to many species of flora and fauna exist on either side of the Anacostia River. These are outside the physical boundaries of the Fort Circle Parks but within the boundaries of Anacostia Park. Stormwater drainage emptying into many of these creeks, however, enters the Anacostia through the wetlands along with the natural streamflow.

AIR QUALITY

National ambient air quality standards (NAAQS) were established in the 1970 amendments to the Clean Air Act. The standards are concentrations of contaminants in the air that will protect public health and prevent degradation or harm to the environment.

The District of Columbia operates an ambient air monitoring network, and the Bureau of Environmental Quality, Environmental Health Administration of the D.C. Department of Health is the agency responsible for monitoring and enforcing the applicable standards. Five sites in the District are periodically sampled for five air pollutant levels. A complete table of the national ambient air quality standards is available on the Internet site of the District of Columbia at http://environ.state.dc.us/dcairqua.htm. The Web site also contains monitoring data through 1995, and a printed ambient air monitoring data report can be obtained.

The Metropolitan Washington Council of Governments (MWCOG) is a partner in the program and analyzes the air quality data. The council provides an area air quality index and notifies the public of the region's air quality status. Up-to-date information on the index can be obtained by calling (202) 962-3299. In addition, information is available about MWCOG environmental programs and publications at: http://www.mwcog.org/.

A major portion of air pollutants in the District of Columbia region may be attributable to emissions from vehicles. Air quality has been improving in the region over the past 10 years for all measured contaminants because of improvements in vehicle emission controls (Metropolitan Washington Air Quality Committee 1997).

The air quality of the Washington, D.C., area is generally good. Fort Circle Parks constitute a class II air quality area. The regional airshed is in compliance for all NAAQS pollutants except ozone. However, the region only recently became an attainment area for carbon monoxide and now must carry on a maintenance plan to prevent

violations of the carbon monoxide standard. Carbon monoxide is a tailpipe emission, and local monitoring can indicate problem areas.

Despite improvements, the U.S. Environmental Protection Agency (EPA) has classified the entire Washington, D.C., metropolitan area, including Fort Circle Parks and the adjacent counties in Virginia and Maryland, as being in non-attainment with the ozone national ambient air quality standards. Ozone cannot be measured as a tailpipe emission. Instead, it is a secondary pollutant that is formed in the atmosphere by the combination of volatile organic hydrocarbons (VOCs) and nitrogen oxides (NO_x) with sunlight as a catalyst. The VOCs and NO_x, called the ozone precursor compounds, are emitted directly into the ambient air by the fossil fuel combustion in automobiles, lawn and garden equipment, power-generating facilities, and various other industrial and nonindustrial activities.

Ozone exceedances generally occur in the summer and are region-wide, rather than localized. The occurrence of high levels of ozone is almost always associated with hot, stagnant air masses over the region, in combination with strong sunlight. High concentrations of ozone can result from the long-range transport of ozone and its precursor compounds from other regions into the Washington metropolitan area.

On average, the Washington metropolitan area has exceeded the one-hour ozone standard six days every summer since 1990. Federal law permits an average of one exceedance per summer at a monitor location (http://www. mwcog.org/dep/air/phase2_factsheet.htm). According to EPA data, the Washington, D.C., area did not meet the one-hour health standard for ozone and consequently is out of attainment for this air pollutant. Even though there have been exceedances of the one-hour health standard for ozone in the Washington metropolitan region, the data indicate a gradually improving trend. In the past few years (1998-2000) the highest concentrations monitored in the region are within 0.005 parts per million (ppm) from meeting the standard (the one-hour

NAAQS ozone standard is 0.12 ppm) (Metropolitan Washington Council of Governments, Dr. Ram Seshu Tangirala, Senior Environmental Planner, pers. com. 1/19/01).

URBAN THREATS

Dumping is a major problem in many areas. Discarded automobile parts and yard and household waste are not only eyesores, but they also have a negative impact on water quality when associated chemicals are released and enter soil and streams. In many areas, including designated picnic areas, intensive visitor use has resulted in problems with soil compaction, erosion, and vegetation damage. Encroachments by neighboring property owners have also resulted in resource damage.

The Fort Circle Parks, because of their strategic locations, have always attracted suggestions for inappropriate development. An airport surveillance radar facility was proposed for location in the Fort Carroll adjacent lands.

SOUNDSCAPE

The Fort Circle Parks soundscape is affected by many noise sources in the Washington area. Although the forts are in residential areas, the areas are rarely quiet. Long-term day-night average sound levels (DNL) are expected to vary from 45 to 80 decibels, depending on the distance of a specific fort site from major noise sources (Wyle Laboratories, Micah Downing, pers. com. 1/23/01). The leading source of noise is from vehicles, including automobiles, trucks, buses, motorcycles and sirens. Road noise from vehicle traffic is often in the background. Other noise sources include aircraft, railroads, construction activities (for example, pneumatic hammers, air compressors, bulldozers, and dump trucks), consumer products (such as stereos, lawnmowers, leaf blowers, and musical instruments), and people shouting. Sounds generated by events at the Fort Dupont Summer Theater also can be heard at some of the forts.

VISITOR USE

INTRODUCTION

It is nearly impossible to accurately count the visitors who come to see the Fort Circle Parks. Most are members of the local community who use the parks on a regular basis for passive recreational activities such as walking, jogging, Tai Chi, meditation, drawing and painting, birdwatching, bicycling, and picnicking, rather than for some purpose related to site's history. The parks also attract visitors from a wider area who use the parks for organized sports such as soccer, softball, basketball, and cross-country track.

Community garden plots are available at Fort Reno, Fort Stevens, Fort Totten, in the Fort Drive median near Fort Slocum and at Fort Dupont. Fort Dupont also has an ice rink and summer theater, and fishing is available at Fort Foote. These sites rarely attract visitors from beyond the region because they are currently managed as community parks with limited interpretation of their national significance.

The few visitors who tour the sites from out of town generally have an interest in the Civil War and prior knowledge about the fort system. However, because the parks do not charge an entrance fee, there would be no mechanism to accurately separate site uses and determine what percentage of visitors come to see the defense works.

INTERPRETATION AND EDUCATION

Interpretation and educational programming related to the Fort Circle Parks is extremely limited. The National Park Service installed wayside exhibits in the early 1990s at most of the fort sites; however, they are simplistic and

many are poorly placed. Fort Foote is the only site with a system of wayside exhibits explaining the earthworks and the role of the system in the Civil War.

The Parks and History Association published a brochure on the Civil War defenses of Washington, which is in limited supply and is not available to visitors on the site. Visitors must request that it be sent to them, or they must pick one up at one of the three parks' visitor centers. A section of the Rock Creek Park website is devoted to the forts under that park's jurisdiction.

Very few interpretive and educational programs are offered at any of the Fort Circle sites. The George Washington Memorial Parkway gives tours of Fort Marcy upon request several times a year. Fort Washington provides tours of Fort Foote upon request as well. Rock Creek Park advertises and leads tours of Fort DeRussy approximately four times a year and provides tours of Fort Stevens upon request.

Rock Creek Park has entered into a partnership with three District of Columbia public schools, all within walking distance of Fort Bunker Hill. The schools use the site as an outdoor classroom for cultural history and environmental education activities. The students, teachers, members of the community and a volunteer group also do trail maintenance, exotic vegetation removal, and reforestation projects at this site. Teachers from all three schools participated in a four-day teacher workshop in 1997 to learn about the site's natural and cultural resources so that they could use it more effectively as an educational tool.

SOCIOECONOMIC ENVIRONMENT

POPULATION AND ECONOMY

The socioeconomic study area is composed of the District of Columbia, Prince Georges and Montgomery counties in Maryland, and Fairfax County in Virginia. In 1998 the total population of this area was about 3,100,000. This figure reflects a population decline of 14% in the District and a total increase of 11.7% in the three counties during the 1990–98 time period. The losses in the District are largely due to declining household sizes and net job growth in suburban counties.

Job growth in the region has slowed substantially since 1990, and the District experienced a loss of 0.07% full-time and part-time jobs between 1990 and 1995. The greatest reductions have been in the government sector, because federal jobs have moved from the District to suburbs in Maryland and Virginia, and government has downsized. Arlington and Montgomery Counties experienced job increases of 0.04% and 0.005%, respectively, and jobs in Prince Georges County declined by 0.02%.

In 1998 the services sector (such as professional services and consultants, health care, associations, and the hospitality industry) was the largest employment sector in the District (41.6%) and all three counties, capturing 25.3% of earnings in Prince Georges County, 40.9% in Montgomery County, and 46.2% in Fairfax County. Federal civilian government or state and local government was the second largest employment sector in all four areas, accounting for 34.4% of earnings in Washington, D.C., 29.7% in Prince Georges County, 13.8% in Montgomery County, and 12.4% in Fairfax County.

Montgomery County had a per capita personal income of \$42,393 in 1998, compared to Fairfax County, with \$44,303, the District of Columbia, with \$36,415, and Prince Georges, with \$27,996. These were all greater than the national average of \$27,203. Unemployment rates in 1996 were highest in the District, at 8.2%, followed by

4.3% in Prince Georges County, 3.1% in Fairfax County, and 2.8% in Montgomery County. The unemployment rate for the United States in 1996 was 5.5%.

Washington, D.C., is divided into political subdivisions called wards. Neighborhoods within these wards near the Fort Circle Parks house residents from a wide range of social and economic characteristics.

Conditions range from high socioeconomic status in the northwest part of Washington, D.C., to a significant number of disadvantaged persons east of the Anacostia River. (Estimated data comparable to that described above for the District as a whole and the three counties is not available for the wards. However, the data below from the 1990 census may provide some comparison within the District.)

Ward 3 encompasses Fort DeRussy, Fort Reno, Fort Bayard, and Battery Kemble. In the 1990 census, 88% of the residents were white, and the median household income of \$48,967 was 59% higher than the District median. The percentage of households in poverty was 6%, which was 60% below the District average.

Forts Stevens, Slocum, and Totten and Battle-ground National Cemetery are in ward 4, in the northernmost corner of the District. The ward's 1990 median household income was \$33,025, which was 7% higher than the city median. Nine percent of the households were in poverty, 40% below the District average. Approximately 85% of ward 4 residents were black, 12% were white, and 3%, other races.

In the northern portion of northeast Washington, ward 5 contains the Fort Circle Strip along Gallatin and Galloway Streets, Fort Bunker Hill, and Barnard Hill. In 1990 the ward's median household income was \$26, 874, or 12% lower than the city median. Seventeen percent of the ward's households were in poverty. This figure was 13% above the District average. Ninety

percent of the population was black, 9% white, and 1%, other races.

Fort Stanton, Battery Ricketts, and Fort Carroll are in ward 6 in northeast Washington. Here the population was 72% black in 1990, 26% were white, and 2%, other races. The median household income of \$32,647 was 6% higher than the city median. The percentage of households in poverty was 15%, approximately equal to the District average.

Ward 7, in the eastern part of the District, encompasses Forts Davis, Dupont, Chaplin and Mahan. The median household income in 1990 was \$25,556 which was 17% lower than the city median. Eighteen percent of households were in poverty, which was 20% above the District average. The ward's population was 97% black, 2% white, and 1%, other races.

Fort Greble and Fort Carroll are in ward 8, in southeast and southwest Washington. In 1990 the population was 91% black, 8% white, and 1%, other races. The median household income was \$21,312, which was 30% lower than the city median. The percentage of households in poverty was 26% which was 74% above the District average.

LAND USE

For purposes of described land uses, the project study area includes the 18 Civil War defense sites and immediate surrounding neighborhoods. The park sites range from the wooded natural area of Fort Foote to areas such as Fort Dupont, which contain a variety of developed recreational facilities.

After the Civil War, land uses of present-day park areas varied from a housing development built by freed slaves at Fort Reno to a Girl Scout campsite at Fort Foote and a tree nursery at Fort Dupont. Today the parks have a primarily recreational land use. They contain picnic groves (some with shelters), playgrounds, recreation fields, trails for hiking and biking, historic fort

and battery remnants, interpretation facilities, and community gardens.

Land uses in the neighborhoods around most of the park sites are typical of a large metropolitan area. The primary land use is residential, with dwelling types ranging from large single-family homes and apartment buildings to public housing developments. Other dominant uses are commercial operations such as retail/office and transportation, including railroad tracks near Fort Totten for the Metro and MARC transit systems and freight trains. Commercial developments are near Fort Stevens, Fort Mahan, Fort Bunker Hill, Fort Reno Park, and Fort Bayard, and light industry is close to Fort Totten.

Various government operations are interspersed throughout the project study area, including the Saudi Arabian consulate across Chain Bridge Road near Fort Marcy. Walter Reed Army Medical Center borders on Rock Creek Park, and the U.S. Soldiers' and Airmen's Home is near Fort Totten. Other public facilities such as museums, community or recreation centers, a police station, a group home, and schools of all educational levels are in the vicinity of park sites. Land use also includes churches and other religious facilities such as the Franciscan Monastery near Fort Bunker Hill.

Parklands are another prominent land use. Three of the largest parks are Rock Creek Park, which encompasses Fort DeRussy in the northwest quadrant of Washington, D.C., Anacostia Park, which stretches along the eastern and western banks of the Anacostia River, and Fort Dupont, in the southeast quadrant.

RECREATION

The 18 federally-owned forts and battery sites and the cemetery are administered by three National Park Service units: George Washington Memorial Parkway, National Capital Parks—East, and Rock Creek Park. Other Civil War defense sites are administered by state, county, and city governments.

The Fort Circle Parks offer a variety of recreational resources with opportunities for both informal and organized recreational pursuits. Multiple use parks such as Forts Foote, Dupont, and Reno offer diversified activities and attract people of various ethnic groups living in different parts of the region. Recreational opportunities at these sites vary from park to park and include infrequent tours of the fort sites, dog-walking, fishing, picnicking, iceskating, tennis, sledding, and gardening. Organized sports that take place in the parks are ice hockey, football, soccer, and baseball. Special events such as concerts, races, family reunions, and other organized group functions also take place in the parks.

Possibly the most used recreational facilities in the parks are trails. Battery Kemble and Forts Dupont, Totten, Mahan, and DeRussy contain hiking trails, and a continuous hiking/bicycle trail exists between Fort Stanton and Fort Mahan. Trails at Fort Greble are overgrown and not well-defined, and a hiking/biking trail at Fort Stanton is in disrepair.

Forts Greble, Stanton, Chaplin, Bunker Hill, Slocum, Stevens, Bayard, and Battery Kemble Park are neighborhood parks used primarily by people living nearby for activities like dogwalking, hiking, picnicking, and sports such as softball, basketball, football, and soccer. Facilities vary from park to park; some facilities available are a children's playground, basketball courts, a swimming pool, a summer day camp, and recreation centers.

Activities at Forts Davis, DeRussy, and Marcy are primarily driving or taking nature walks. Parks receiving little use are Forts Carroll, Mahan, and Totten. These parks offer few or no facilities, or their facilities are in disrepair.

An ethnographic survey (Juárez and Associates 1997) indicates that visitors and neighbors are concerned about maintenance and safety in parks. Dumping occurs at Forts Foote, Greble, and Davis, while others such as Fort Mahan, Bunker Hill, Totten, and Slocum may

experience gangs or drugs or other illegal activities.

Patterns of recreational use are changing in the parks as the demographics of the surrounding communities change. For example, immigrants and refugees from El Salvador, Guatemala, Cambodia, Laos, and Vietnam have settled near Forts Bunker Hill, Totten, Stevens, and Reno. Many of these new residents maintain their interest in activities such as soccer from their former countries and look to the region's parks to provide facilities suitable for their interests.

TRANSPORTATION, ACCESS, AND PARKING

The Washington, D.C., area is a transportation hub for the eastern seaboard, with a variety of modes for national and international travel. Available transportation modes include passenger train, automobile, bus, and airline.

Within the metropolitan area the primary modes of transportation are the automobile freeway system and the Metrorail and Metrobus system. The freeway system is comprised of several interstate highways, primarily I-495/95 (Capitol Beltway), I-295, I-395, I-270 and I-66. Major secondary roadways include U.S. Highway 50, U.S. 29, and U.S. 1.

Primary automobile access to Civil War defense parks east of the Anacostia River is by I-295 and Suitland Parkway, Pennsylvania Avenue, Minnesota Avenue, and East Capitol Street. Parks in the northern part of the District are accessed via U.S. 29 and tertiary roadways South Dakota, North Dakota, and Missouri Avenues. Travelers approach parks in the northwest quadrant by U.S. 50, Nebraska Avenue, and Military Road. Fort Foote, the southernmost fort, is accessed by I-295.

The Washington Metropolitan Area Transit Authority began operating in 1969 to provide a balanced regional transportation system in the national capital area. The jurisdictions in the transit zone are the District of Columbia;

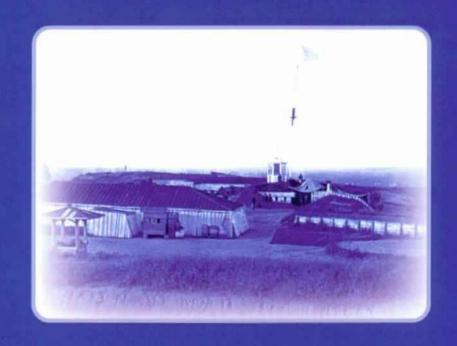
AFFECTED ENVIRONMENT

Montgomery and Prince Georges Counties in Maryland; and Arlington and Fairfax Counties in Virginia.

The Metrobus and Metrorail system serves a population of 3.2 million over an area of 1,500 square miles. An average of 852,000 riders use the system on weekdays. Metrorail operates along 89 miles of track with 74 stations. Additional track and stations scheduled to be completed by 2001 will raise the total to 103

miles with 86 stations. With the exception of Fort Marcy and Fort Foote, the Fort Circle sites are accessible by rail or by bus.

Parking facilities vary between sites. Battery Kemble and Forts Dupont, Stanton, and Marcy have parking lots. Forts Totten, Stevens, and DeRussy have roadside pulloff parking, and Fort Foote has an unpaved parking area. There are no parking spaces at Fort Carroll. Only onstreet parking is available at Battleground Naitonal Cemetery.



ENVIRONMENTAL *
CONSEQUENCES



ALTERNATIVE 1: MAINTAIN CURRENT MANAGEMENT

INTRODUCTION

The purpose of this Management Plan / Environmental Assessment is to evaluate alternative strategies for further development and management of the 18 Civil War fort sites and connecting greenbelt corridor under NPS administration. The general nature of the alternatives requires that the analysis of impacts also be general or programmatic. The level of analysis is adequate for comparing alternatives and developing the type and degree of impacts. However, additional site-specific analyses would be needed as individual actions were undertaken, and additional data would be needed to fully identify environmental impacts. Site-specific analyses in compliance with the National Environmental Policy Act would focus on design and construction details and effects on site characteristics, such as soils, vegetation, water resources, and species of concern.

IMPACTS ON CULTURAL RESOURCES

The fort sites would continue to receive inconsistent resource protection under the noaction (status quo) alternative. Because the parks' resources are not solely focused on their Civil War resources, funding would also remain inconsistent. Additional funds specifically for preservation purposed would be sought but may not be successful.

The protection and preservation of important fortifications and related features and the educational programs related to them would remain at current levels under inadequate and substandard conditions.

Conclusion: Under alternative 1, with continuation of current management practices, adverse impacts on cultural resources would continue with the possible eventual loss of some of the historic earthworks.

IMPACTS ON NATURAL RESOURCES

Continuing current management would have moderately adverse impacts on vegetation, water quality, aquatic life, and soils. Exotic vegetation would continue to invade native plant communities. Streams in the project area, particularly at Fort Dupont and the Rock Creek Park area, would still receive stormwater runoff from surrounding urban areas, and this would result in flooding, erosion of stream channels, increased sedimentation, and the degradation of water quality. These occurrences would continue to be detrimental to aquatic life, including species of concern. There would continue to be a potential for the degradation of soils and water resources from the dumping of household wastes and their associated chemicals on park lands. The compaction of soils in areas of heavy visitation would continue to cause runoff, erosion, and localized loss of vegetation.

There would be no discernible impacts on the overall air quality around the fort sites. With no construction activities proposed, levels of fugitive dust and construction vehicle emissions would remain at current levels. Without an increase in visitors, traffic and associated pollutants would remain at current levels.

With no appreciable changes in the operations and management of the park sites, there would be no wildlife habitat deterioration or loss. It is expected that the status of special concern species in the project vicinity would reflect existing conditions and trends.

Conclusion: Moderately adverse impacts on vegetation, soils, water resources, and aquatic life would occur primarily from resource degradation associated with current conditions and management practices. Impacts on air quality and wildlife would be negligible.

IMPACTS ON VISITOR EXPERIENCE

Continuing current management under alternative 1 would result in moderately adverse effects on the educational and safety aspects of the visitor experience. Visitors would continue to benefit from the availability of a variety of recreational opportunities in the Fort Circle Park system. However, visitor services, including interpretive and educational programs and materials, would not be expanded and would remain inadequate and inconsistent throughout the system. Visitors would continue to have few opportunities to learn the stories and significance of individual park sites and the Civil War defense system as a whole. NPS public outreach efforts in the community would not increase.

Inadequate levels of park patrols would continue to raise concerns about visitor and neighborhood safety. The use of forested and secluded areas for illegal activities would continue at some park sites.

Conclusion: Continuing current management would result in continued adverse effects on educational opportunities and visitor safety, and the visitor experience would deteriorate.

IMPACTS ON THE SOCIOECONOMIC ENVIRONMENT

Alternative 1 would have a negligible effect on economic conditions in the District. With no project-related increase in visitation anticipated, economic benefits would not increase in areas

around the park sites. Employment opportunities and income growth would not be affected. The present trends in adjacent land use and traffic conditions on roads near the parks would be likely to continue.

Conclusion: The current social, economic, and land use conditions and trends would be expected to continue unchanged into the future. However, further deterioration of park facilities and perceived visitor safety could result in an overall decline in the neighborhood.

IMPACTS ON PARK MANAGEMENT AND OPERATIONS

Under alternative 1, the management of the defense sites would remain under the three separate parks and be administered consonant with the management needs and philosophy of each park, rather than a unified management strategy being designed to unify the Fort Circle Parks.

Funding and staffing would continue to be managed by each respective park with the level of maintenance, interpretation, and recreational opportunities varying by park.

The parks' staff would not be increased, and maintenance of the earthworks and vegetation management would be variable, depending on the managing park.

No new facilities would be constructed.

ALTERNATIVE 2: RECONNECTING THE FORTS

IMPACTS ON CULTURAL RESOURCES

Actions associated with alternative 2 would ensure that the criteria for which the Fort Circle Parks was listed in the National Register of Historic Places would be maintained and protected.

Earthwork stabilization would benefit cultural resources by reducing the erosion of the earthworks and minimizing the loss of earthworks through human use. Vegetation management would remove invasive exotic plant species (that is, those plant species identified as a threat to remaining native plant species) and protect and preserve critical elements of the environment of each site.

To ensure the protection of any unknown cultural resources, archeological surveys would be conducted at the various fort sites and along proposed trail paths before ground-disturbing actions. Archeological monitoring would be ongoing during trail rehabilitation, new construction, and earthwork stabilization. As soon as it could be implemented, the National Park Service would undertake a parkwide archeological inventory that would meet the requirements of section 110 of the National Historic Preservation Act of 1966, as amended.

Increased visitor access to historic and cultural resources would be evaluated at each site and measures implemented to lessen any possible impacts. Such measures could include more frequent patrols by park staff and U.S. Park Police, more informational signs and brochures, increased maintenance, or a complete rethinking of how the visitor moves around the resources.

Conclusion: No adverse impacts on cultural resources would result from the actions of alternative 2. Beneficial impacts would include improving the protection and preservation of the earthworks and fort sites through stabilization and vegetation management.

IMPACTS ON NATURAL RESOURCES

Current conditions would continue to have moderately adverse impacts on vegetation, water quality, aquatic life, and soils, as described in alternative 1. Alternative 2 also would have additional effects on soils, vegetation, and wildlife. Constructing new segments of a walking trail and widening portions of existing trails would result in soil compaction and the removal and permanent loss of a small amount of vegetation. Vegetation loss would total less than 2 acres along the entire trail, depending on final alignment, grades, and other factors that would be determined at the design stage.

The wide floodplain of the Anacostia River would be spanned by a footbridge somewhere in the vicinity of the National Arboretum. An expansive area of wetlands exists on both sides of the Anacostia with attendant wetland species and wildlife. The footbridge would connect portions of the Fort Circle Parks north of the river with those south of the river. However, those environmental impacts would be analyzed in a general management plan/environmental impact statement for Anacostia Park

The impacts from constructing the trail would be minor. The new trail along streams would be designed to avoid areas of wetlands and not impede the floodway or cause damaging erosion. The area of soil and vegetation disturbance would be limited as much as possible to already disturbed areas such as those currently mowed. Areas adjacent to the trail disturbed during construction would be revegetated promptly. In areas where there are slopes or erodable soils, erosion control measures would be implemented to minimize soil loss and facilitate revegetation.

Some localized compaction of soils and loss of vegetation could occur with use of the trail if visitors strayed from the designated trail. However, signs and education could be used to encourage visitors to remain on the designated path.

Managing the historic landscape at various sites such as Fort Foote and Fort Totten would involve selective removal of trees and vegetation to recall the historic sight lines from the fort along the ridge. Clearing vegetation for historic preservation efforts would result in the permanent loss of a currently undefined area of trees and vegetation.

The potential impacts on wildlife from vegetation management and trail construction would include habitat loss. However, this loss would be narrow and limited and would not have a discernible effect on wildlife populations. Large portions of the trail segments already exist, and they are surrounded by a heavily urbanized environment. The trail would carry mostly foot traffic. The hiker/biker trail between Forts Mahan and Stanton would continue to allow bicycles. Significant disruption of the wildlife population would not be expected. Most trail use would occur during daylight, and disturbance would be limited primarily to those hours. Habitat loss and disturbance by visitors would not decrease biodiversity.

A number of federally listed and state-listed plant and animal species are found near several of the Fort Circle Parks. Before new trail segments were constructed, site-specific surveys would be conducted, as appropriate, to determine whether the area contained any listed species. As required by NPS Management Policies, the National Park Service would cooperate with the appropriate agencies to ensure the protection of any species found.

Trail construction would be minimized near local streams. If construction was unavoidable, the latest environmental measures would be undertaken to lessen any possible impact upon the stream; therefore, impacts on water resources would be negligible.

Trail construction and the removal of trees would result in short-term, localized, increases in noise and emissions from machinery. Impacts on air quality would be expected to be negligible with the use of appropriate vehicle air pollution controls. Noise from machinery such as chain

saws would be evident at times. This would result in a moderate to major increase in noise that would be heard by both residents and visitors. However, these impacts would last for only a few hours and would cease when the construction and vegetation clearing activities were completed. When added to all the other air pollution and noise sources in the region, the alternative would result in a negligible cumulative impacts.

Any specific project that generated noise levels exceeding existing levels by 2 decibels or more on an Leq basis (a scientific measure of noise) should be further evaluated for impacts and mitigation.

An anticipated slight increase in visitation would not appreciably affect the District's air quality or soundscape. Current conditions and trends would be expected to continue.

Conclusion: Moderately adverse impacts on vegetation, soils, water resources, and aquatic life would continue. Minor adverse impacts would result from constructing segments of a walking trail and vegetation management at the fort sites The impacts would occur over the long term through the loss of vegetation and the possible compaction of soils. Impacts from trail construction on wildlife, water resources, and air quality would be negligible. Trail construction and the removal of trees would result in moderate to major short-term adverse noise impacts in localized areas.

IMPACTS ON VISITOR EXPERIENCE

Visitors would benefit in the long term from the actions of alternative 2. The visitor experience would be enhanced by upgraded interpretive trail wayside exhibits at the fort sites, revised brochures, and a walking tour of the Battle of Fort Stevens. These improvements would result in visitors' increased understanding and appreciation of the parks' resources through a more comprehensive interpretive program.

Other benefits to the visitor experience would result from rehabilitating current recreational

facilities such as ballfields, tennis courts, picnic areas, restrooms, and parking lots. Rehabilitation would enhance the function of these facilities and would restore their appearance.

In addition to the current recreational activities at the fort sites, alternative 2 would offer both educational and recreational opportunities to people using the walking trail. Establishing the walking trail would provide a connecting link between sites, and this would enable visitors to gain understanding of the sites as a complete defense system and a communication and supply corridor. Visitors would learn first-hand the strategies behind defending the nation's capital during the Civil War. The trail also would help raise awareness of the Fort Circle Parks system around the city. Barrier-free construction where possible of the trail would benefit elderly visitors and visitors with disabilities by facilitating access.

Clearing vegetation in selected areas at Fort Foote and Fort Totten and managing vegetation at other Fort Circle Parks would change the existing scene at these sites. This could have a short-term adverse impact for people who were accustomed to seeing vegetation in these areas, but the long-term effect would be beneficial because visitors could more easily visualize and gain greater understanding of the historic landscape and events.

Although precise amounts cannot be predicted at this time, visitation would be expected to increase under alternative 2 as a result of improved facilities and interpretive programs. This would benefit current users, because attracting more people to the fort sites, along with increasing the number of patrols, would help to ensure safety for park users.

Increases in visitation would not be expected to exceed the capacity of park facilities. Additional users of the Fort Circle sites could create an increased recreational demand at other area facilities such as museums and District recreation facilities. However, the fort sites extend over a wide area, and there are numerous sites in

the region. No reduction of recreational experiences should result from this alternative.

Conclusion: Long-term benefits to the visitor experience would result from improving facilities, expanding interpretive programs, establishing a walking trail, and increasing accessibility and safety. These enhancements would result in increased visitation.

IMPACTS ON THE SOCIOECONOMIC ENVIRONMENT

Although increased visitation to the Fort Circle Parks would be expected under alternative 2, this increase would have negligible impact on the overall regional economy. Businesses such as restaurants in the immediate area of the fort sites and the walking trail could benefit from increased revenue from a greater number of visitors. However, the increase in revenue probably would not be significant, and impacts would be minor.

With additional recreational use along the trail, alternative 2 would result in minor changes in land use. However, most of the trail segments are in or adjacent to greenbelt areas already designated for recreational use, so impacts on land use would be negligible.

Some lifestyle and social changes might result from increased visitation to the areas of the fort sites. Landowners near the walking trail and parks could experience a loss of privacy and possible trespass by visitors. Higher traffic levels would mean increased noise levels and possibly some minor traffic congestion at access points during high use periods. Visitation would increase primarily during favorable weather and on weekends. Because the trail would be for walkers and the number of parking spaces at fort sites would limit use in these areas, increases in traffic volume and noise levels would be minor.

Trails would be sited to have as little impact upon the public gardens as possible, using public sidewalks or constructing new trails around the gardens. However, it might be impossible to avoid affecting the gardens in some locations. In those cases the National Park Service would work with gardeners to minimize any impact to the fullest extent possible.

Conclusion: Alternative 2 would have minor beneficial effects on the economy and the lifestyle of local businesses and residents. There would be a minor increase in traffic and noise levels during periods of heavy visitation. Changes to land use would be negligible.

IMPACTS ON PARK MANAGEMENT AND OPERATIONS

Although the management of the defense sites would remain under the three separate parks, a single, comprehensive management plan would provide a framework for consistent maintenance, interpretation, resource management, and other aspects of operations.

Funding and staffing would continue to be managed by each respective park, but these activities would be coordinated among the parks to ensure that the level of maintenance, facilities, and recreational opportunities would be similar across park boundaries and that the visitor experience would be seamless, regardless of park boundaries.

The parks' staff would need to be increased. Maintaining the stabilized forts and increasing vegetation management around them would become a higher maintenance priority. A larger maintenance staff would be needed to carry out more trail maintenance resulting from more miles of trail, more trash removal necessitated by increased visitation, and increased repair of recreational facilities due to additional use of upgraded facilities.

A need for additional staff for site protection and interpretation would result from a higher level of visibility for the parks and for sites such as Fort Foote and Fort Totten, where there would be a higher level of vegetation management.

No new maintenance, restroom, or interpretive facilities would be constructed.

Conclusion: Alternative 2 would raise the visibility of the Fort Circle Parks, which would necessitate a consequent increase in staffing. Although no new buildings would be built, completing a walking trail of about 23 miles would greatly improve access and visitation. Cooperation between Rock Creek Park and National Capital Parks—East would be necessary to focus the necessary attention on the resources of the Fort Circle Parks.

ALTERNATIVE 3: CIVIL WAR DEFENSES OF WASHINGTON

IMPACTS ON CULTURAL RESOURCES

Changing the name of the Fort Circle Parks to the "Civil War Defenses of Washington" would focus attention more on the Civil War resources and less on the local recreational aspects associated in the minds of local Washingtonians with "Fort Circle Parks."

With more focus increased visitation could result in additional erosion of earthworks from visitors walking on them. This could be ameliorated somewhat through additional ranger and U.S. Park Police patrols and through an educational program of signs, brochures, and educational talks.

The significance for which the Civil War fort sites are listed on the National Register of Historic Places would be protected and enhanced under alternative 3.

As with alternative 2, all earthworks needing stabilization would receive such treatment and measures implemented to lessen any possible visitor impacts. Such measures could include more frequent patrols by park staff and U.S. Park Police, more informational signs and brochures, increased maintenance, or a complete rethinking of how the visitor moves around the resources.

Preserving Fort Stevens, which previously was reconstructed, would ensure both its significance to the story of the defense of Washington during the Civil War and its story about the Civilian Conservation Corps. Stabilization efforts and vegetation management at other earthworks would serve to actively protect them from degradation through natural processes and visitor use. These actions would facilitate developing interpretive and educational programs on the importance of the Civil War defenses of Washington.

A visitor contact facility could be developed in an existing storefront rental property nearby, or the Military Road Schoolhouse, or in newly constructed space along Quakenbos Street.

The Fort Dupont activity center would be converted into a community education center, and a kiosk near Fort Dupont would be used as a visitor contact facility for the Civil War Defenses and natural resource education programs. Only the interior of the Fort Dupont activity center would be altered to allow for interpretive exhibits. Constructing a kiosk at Fort Dupont to serve as a small visitor contact station would not have a physical effect on any earthworks, but it would add a visual feature to the landscape.

A third key location for interpretation would be at Fort Marcy, where the interpretation would be altered somewhat to focus more on the complex of earthworks that make up the Fort Circle Parks. No new structures would be necessary, so there would be no effect on Fort Marcy's cultural resources.

Specific impacts would be analyzed through the section 106 process before any alternative was implemented. The section 106 process would document the project's effects, outline actions to mitigate such effects, and ensure that the proposed action would flow from an approved plan that meets section 106 requirements. As a part of this process, consultation with the Advisory Council on Historic Preservation and the District historic preservation officer would be undertaken.

Conclusion: No loss or damage of cultural resources would occur from the actions of alternative 3.

IMPACTS ON NATURAL RESOURCES

Moderately adverse impacts would continue on vegetation, soils, water resources, and aquatic life. Vegetation management at the fort sites would have minor adverse impacts over the long term, with the loss of vegetation and possible compaction of soils. Impacts on wildlife and water resources would be negligible. Correcting stormwater impacts from nonpark sources would help improve habitat values and increase the opportunities for interpreting natural resources, as would feasible environmental enhancements.

Short-term localized increases in noise and emissions from machinery would result from restoring Fort Stevens, constructing a visitor contact station in the vicinity of Fort Stevens, rehabilitating the caretaker's lodge, converting the Fort Dupont center into a community education center and the picnic shelter into a visitor contact facility, and general erosion control and vegetation management efforts. Noise from machinery such as chain saws would be evident at times and result in a moderate to major increase in noise that would be heard by both residents and visitors. However, these impacts would last for only a few hours and would cease when the construction and vegetation clearing activities were completed. When added to all the other air pollution and noise sources in the region, alternative 3 would result in a negligible cumulative impact.

Any specific project that generated noise levels exceeding existing levels by 2 decibels or more on an Leq basis (a scientific measure of noise) should be further evaluated for impacts and mitigation. Because these facilities are not in the same areas of the parks as the historic forts and earthworks, their presence does not currently detract from the experience of visitors trying to understand the military history of the site.

Conclusion: Actions of alternative 3 would result in short-term localized increases in noise and emissions. Impacts on air quality would be negligible with the application of appropriate vehicle and machinery air pollution controls. Overall, alternative 3 would be expected to have a negligible short-term impact on the District's air quality and soundscape, although there probably would be moderate to major

short-term adverse noise impacts in localized areas.

IMPACTS ON VISITOR EXPERIENCE

As in alternative 2, visitors would benefit in the long term from alternative 3. The visitor experience would be enhanced by visitor contact facilities at or near Fort Stevens and Fort Dupont and through new Fort Marcy interpretation explaining the entire system of earthworks. Upgraded interpretive wayside exhibits at the other fort sites, revised brochures, a walking tour of the Battle of Fort Stevens, and a driving tour of the Civil War defenses system would greatly increase visitor appreciation and understanding of the Fort Circle Parks.

Offering visitor contact facilities at Fort
Stevens and Fort Dupont and providing a more
comprehensive story at Fort Marcy would give
visitors three locations where they could get a
comprehensive introduction to the defense
system by way of exhibits and park staff.
Brochures and auto tour information would be
available at these locations before visitors
proceeded to other earthworks.
Other benefits to the visitor experience would
result from rehabilitating current recreational
facilities such as ballfields, tennis courts,
picnic areas, restrooms, and parking lots.
Rehabilitation would enhance the function of
these facilities as well as their appearance.

Conclusion: Rehabilitated recreational facilities and a more focused interpretive strategy for telling the story of the Civil War defense of Washington would greatly benefit visitors. The parks would become a destination for visitors with an interest in the Civil War because the three contact sites would provide an overview and a place from which to begin a tour of one, several, or all of the Fort Circle Parks. Changing the name of this group of parks name to "Civil War Defenses of Washington" would give visitors a better understanding of what resources are available in these parks

IMPACTS ON THE SOCIOECONOMIC ENVIRONMENT

The expected increased visitation to the Fort Circle Parks would have negligible effects on the overall regional economy. Businesses such as restaurants in the immediate area of the fort sites could benefit from increased revenue from a greater number of visitors. However, the increase in revenue probably would not be significant, and impacts would be minor.

Some lifestyle and social changes might result from increased visitation to the areas of the fort sites. Residents near the walking trail could experience a new amenity and recreational opportunities. Increased use of recreational facilities would mean an increase in noise levels and possibly some minor traffic congestion at access points during high use periods. Visitation would increase primarily during favorable weather and on weekends. Because there would be no new parking at any of the sites, the number of parking spaces at fort sites would limit use in these areas. Increases in traffic volume and noise levels would be minor.

Conclusion: A new focus for the park would make the public aware that important cultural resources exist, and people would have a new sense of pride in the existence of these resources. An increased NPS presence at the earthworks, either by interpretive, maintenance, or protective staff, would encourage use of each site by neighbors. Economic benefits to the communities surrounding each site would be minor to negligible.

IMPACTS ON PARK MANAGEMENT AND OPERATIONS

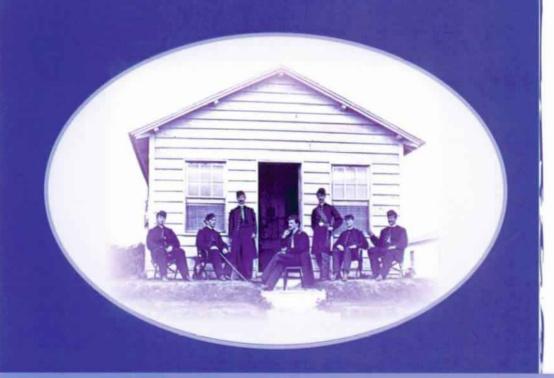
As in alternative 2, the management of the defense sites would remain under the three separate parks under alternative 3, and a single, comprehensive management plan would provide a framework for consistent

maintenance, interpretation, resource management, and other aspects of operations.

Funding and staffing would continue to be managed by each respective park, but these activities would be coordinated among the parks to ensure that the level of maintenance, facilities, and recreational opportunities would be similar across park boundaries and that the visitor experience would be seamless, regardless of park boundaries.

As in alternative 2, the parks' staff would need to be increased. Maintaining the stabilized forts and increasing vegetation management around them would become a higher maintenance priority. Because the emphasis of this alternative would be on interpretation rather than recreation and the need to tie the earthworks together with a continuous trail, most of the new employees would be needed for interpretation and visitor contact rather than for maintenance, as in alternative 2.

Conclusion: Alternative 3 would raise the visibility of the Fort Circle Parks.
Rehabilitated structures and increased maintenance of vegetation around all earthworks would greatly enhance the visitor experience while requiring increased staffing to maintain and interpret the resources.
Increased cooperation among Rock Creek Park, George Washington Memorial Parkway, and National Capital Parks—East would be necessary to carry out uniform maintenance, visitor protection, and interpretation across the Fort Circle Parks.



CONSULTATION *
COORDINATION, and *
PUBLIC INVOLVEMENT *

CONSULTATION AND COORDINATION

PUBLIC INVOLVEMENT

The planning team and park staffs conducted three public meetings related to the formulation of this *Management Plan*. These initial scoping meetings were held on January 22, 23, and 29, 1998, at the Fort Dupont Activity Center, the McLean Community Center, and the Rock Creek Nature Center, respectively. Approximately 30 people attended the three meetings. The purpose of the meetings was for the planning team to brief the public about the purpose of the planning effort and to listen to the comments and concerns that the public had regarding the Fort Circle Parks.

People who attended the public meetings expressed support for preserving the historic resources, maintaining the recreational facilities, and promoting educational programs related to Washington's natural and historic resources. Residents also expressed concern about safety issues at the parks and possible illegal uses of park properties.

In addition to the public meetings, the planning team and park staffs prepared and distributed a project newsletter and solicited comments from recipients. Approximately 40 responses were received from the newsletter mailing.

Another public involvement opportunity was presented with a website that was posted as part of the NPS Internet site. Several responses, questions, and suggestions were received related to the web page.

Letters announcing the start of the management plan and requesting data on threatened or endangered species and other natural resources information were sent to the U.S. Fish and Wildlife Service, and the District of Columbia, commonwealth of Virginia, and the state of Maryland on January 15, 1998. Data was received from the U.S. Fish and Wildlife Service, the commonwealth of Virginia departments of Conservation and Recreation,

Game and Inland Fisheries, Agriculture and Consumer Services Division of Consumer Protection (Office of Plant and Pest Services), and the District of Columbia Natural Heritage Program and National Capital Region Conservation Data Center.

Data on air quality was reviewed by the Senior Environmental Planner, Department of Environmental Programs of the Metropolitan Washington Council of Governments. Soundscape data was identified during consultation with Wyle Laboratories.

OTHER INFORMATION GATHERING

The National Park Service completed an ethnographic study as part of the planning process to contact people who might not have participated in traditional public meetings. The study focused especially on neighborhoods near the Civil War Defense of Washington fort sites. Questions elicited responses related to the use and understanding of the importance of the park sites to local residents and their concerns related to the management plan.

All the comments received by the park staffs and the planning team were considered in the formulation of this management plan and in choosing the preferred alternative. This document is being made available to the public for additional comment. All comments received will be carefully considered before a decision is made regarding the final plan.



APPENDIXES *
BIBLIOGRAPHY *
STUDY TEAM *

APPENDIX A: LEGISLATION

1. Reorganization of Government, excerpts from Executive Order No. 6166 of June 10, 1933 (5 U.S.C. secs. 124-132).

Executive Order

Organization of Executive Agencies

Whereas section 16 of the act of March 3, 1933 (Public, No. 428, 47 Stat. 1517), provides for reorganizations within the executive branch of the Government; requires the President to investigate and determine what reorganizations are necessary to effectuate the purposes of the statute; and authorizes the President to make such reorganizations by Executive order; and

Whereas I have investigated the organization of all executive and administrative agencies of the Government and have determined that certain regroupings, consolidations, transfers, and abolitions of executive agencies and functions thereof are necessary to accomplish the purposes of section 16;

Now, therefore, by virtue of the aforesaid authority, I do hereby order that:

Section 2. National Parks, Buildings, and Reservations

All functions of administration of public buildings, reservations, national parks, national monuments, and national cemeteries are consolidated in an Office of National Parks, Buildings, and Reservations¹ in the Department of the Interior, at the head of which shall be a Director of National Parks, Buildings, and Reservations; except that where deemed desirable there may be excluded from this provision any public building or reservation which is chiefly employed as a facility in the work of a particular agency. This transfer and consolidation of functions shall include, among others, those of the National Park Service of the Department of the Interior and the National Cemeteries and Parks of the War Department which are located within the continental limits of the United States. National cemeteries located in foreign countries shall be transferred to the Department of State, and those located in insular possessions under the jurisdiction of the War Department shall be administered by the Bureau of Insular Affairs of the War Department.

The functions of the following agencies are transferred to the Office of National Parks, Buildings, and Reservations of the Department of the Interior, and the agencies are abolished:

Arlington Memorial Bridge Commission

Public Buildings Commission

Public Buildings and Public Parks of the National Capital

National Memorial Commission

Rock Creek and Potomac Parkway Commission

Expenditures by the Federal Government for the purposes of the Commission of Fine Arts, the George Rogers Clark Sesquicentennial Commission, and the Rushmore National Commission shal be administered by the Department of the Interior.

Section 19—General Provisions

Each agency, all the functions of which are transferred to or consolidated with another agency, is abolished. The records pertaining to an abolished agency or a function disposed of, disposition of which is not elsewhere herein provided for, shall be of, disposition of which is not elsewhere herein provided for, shall be transferred to the successor. If there be no successor agency, and such abolished agency be within a department, said records shall be disposed of as the head of such department may direct.

The property, facilities, equipment, and supplies employed in the work of an abolished agency or the exercise of a function disposed of, disposition of which is not elsewhere herein provided for, shall, to the extent

¹ "National Park Service" was substituted for "Office of National Parks, Buildings, and Reservations" by Act of March 2, 1934 (48 Stat. 389), see excerpt, page 13.

required, be transferred to the successor agency. Other such property, facilities, equipment, and supplies shall be transferred to the Procurement Division.

All personnel employed in connection with the work of an abolished agency or function disposed of shall be separated from the service of the United States, except that the head of any successor agency, subject to my approval, may within a period of four months after transfer or consolidation, reappoint any of such personnel required for the work of the successor agency without reexamination or loss of civil-service status.

Section 20. - Appropriations

Such portions of the unexpended balances of appropriation for any abolished agency or function disposed of shall be transferred to the successor agency as the Director of the Budget shall deem necessary.

Unexpended balances of appropriations for an abolished agency or function disposed of, not so transferred by the Director of the Budget, shall, in accordance with law, be impounded and returned to the Treasury.

Section 21. – Definitions

As used in this order—

"Agency" means any commission, independent establishment, board, bureau, division, service, or office in the executive branch of the Government.

"Abolished agency" means any agency which is abolished, transferred, or consolidated.

"Successor agency" means any agency to which is transferred some other agency or function, or which results from the consolidation of other agencies or functions.

"Function disposed of" means any function eliminated or transferred.

Section. 22—Effective Date

In accordance with law, this order shall become effective 61 days from its date; *Provided*, That in case it shall appear to the President that the interests of economy require that any transfer, consolidation, or elimination be delayed beyond the date this order becomes effective, he may, in his discretion, fix a later date therefor, and he may for like cause further defer such date from time to time.

FRANKLIN D. ROOSEVELT.

The White House, June 10, 1933.

[No. 6166]

2. Reorganization of Government, Executive Order No. 6228 of July 28, 1933, to make more explicit and to interpret Section 2 of Executive Order No. 6166 of June 10, 1933 (5 U.S.C. secs. 124-132)

Executive Order

ORGANIZATION OF EXECUTIVE AGENCIES

Whereas executive order No. 6166 Dated June 10, 1933, issued pursuant to the authority of Section 16 of the Act of March 3, 1933 (Public No. 428—47 Stat. 1517) provides in Section 2 as follows:

"All functions of administration of public buildings reservations, national parks, national monuments, and national cemeteries are consolidated in an office of National Parks, Buildings, and Reservations in the Department of the Interior, at the head of which shall be a Director of National Parks Buildings, and Reservations; except that where deemed desirable there may be excluded from this provision any public building or reservation which is chiefly employed as a facility in the work of a particular agency. This transfer and

consolidation of functions shall include, among others, those of the National Park Service of the Department of the Interior and the National Cemeteries and Parks of the War Department which are located within the continental limits of the United States. National Cemeteries located in foreign counties shall be transferred to the Department of State, and those located in insular possessions under the jurisdiction of the War Department shall be administered by the Bureau of Insular Affairs of the War Department."

and;

Whereas to facilitate and expedite the transfer and consolidation of certain units and agencies contemplated thereby, it is desirable to make more explicit said Section 2 of the aforesaid executive order of June 10, 1933, insofar as the same relates to the transfer of agencies now administered by the War Department:

Now, Therefore, said executive order No. 6166, date June 10, 1933, is hereby interpreted as follows:

1. The cemeteries and parks of the War Department transferred to the Interior Department are as follows:

NATIONAL MILITARY PARKS

Chickamauga and Chattanooga National Military Park, Georgia and Tennessee.
Fort Donelson National Military Park, Tennessee.
Fredericksburg and Spotsylvania County Battle Fields Memorial, Virginia.
Gettysburg National Military Park, Pennsylvania.
Guilford Courthouse National Military Park, North Carolina.
Kings Mountain National Military Park, South Carolina.
Moores Creek National Military Park, North Carolina
Petersburg National Military Park, Virginia.
Shiloh National Military Park, Tennessee.
Stones River National Military Park, Tennessee.
Vicksburg National Military Park, Mississippi.

NATIONAL PARKS

Abraham Lincoln National Park, Kentucky. Fort McHenry National Park, Maryland.

BATTLEFIELD SITES

Antietam Battlefield, Maryland.
Appomattox, Virginia.
Brices Cross Roads, Mississippi.
Chalmette Monument and Grounds, Louisiana.
Cowpens, South Carolina.
Fort Neccessity, Wharton County,² Pennsylvania.
Kenesaw Mountain, Georgia.
Monocacy, Maryland.
Tupelo, Mississippi.
White Plains, New York.

NATIONAL MONUMENTS

Big Hole Battlefield, Beaverhead County, Montana. Cabrillo Monument, Ft. Rosecrans, California. Castle Pinckney, Charleston, South Carolina.

² Wharton Township, Fayette County.

APPENDIXES

Father Millet Cross, Fort Niagara, New York.
Fort Marion, St. Augustine, Florida.
Fort Matanzas, Florida.
Fort Pulaski, Georgia.
Meriwether Lewis, Hardin County, Tennessee.
Mound City Group, Chillicothe, Ohio.
Statue of Liberty, Fort Wood, New York.

MISCELLANEOUS MEMORIALS

Camp Blount Tablets, Lincoln County, Tennessee.
Kill Devil Hill Monument, Kitty Hawk, North Carolina.
New Echota Marker, Georgia.
Lee Mansion, Arlington National Cemetery, Virginia.

NATIONAL CEMETERIES

Battleground, District of Columbia.
Antietam, (Sharpsburg) Maryland.
Vicksburg, Mississippi.
Gettysburg, Pennsylvania.
Chattanooga, Tennessec.
Fort Donelson, (Dover) Tennessee.
Shiloh, (Pittsburg Landing) Tennessee.
Stones River, (Musfreesboro) Tennessee.
Fredericksburg, Virginia.
Poplar Grove, (Petersburg) Virginia.
Yorktown, Virginia.

- 2. Pursuant to Section 22 of said executive order it is hereby ordered that the transfer from the War Department of national cemeteries other than those name above be, and the same is hereby postponed until further order.
- 3. Also pursuant to Section 22 of said executive order it is hereby ordered that the transfer of national cemeteries located in foreign countries from the War Department to the Department of State and the transfer of those located in insular possessions under the jurisdiction of the War Department to the Bureau of Insular Affairs of said Department be, and the same are hereby postponed until further order.

FRANKLIN D. ROOSEVELT

The White House, *July 29, 1933.*

[No. 6228]

SIXTY-EIGHTH CONGRESS. Sess. I. CH.270. 463

CHAP. 270.-An Act Providing for a comprehensive development of the park and playground system of the National Capital.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled. That to preserve the flow of water in Rock Creek, to prevent pollution of Rock Creek and the Potomac and Anacostia Rivers, to preserve forests and natural scenery in and about Washington, and to provide for the comprehensive systematic, and continuous development of the park, parkway, and playground system of the National Capital, there is hereby constituted a commission, to be known as the National Capital, Park Commission, composed of the Chief of Engineers of the Army, the Engineer Commissioner of the District of Columbia, the Director of the National Park Service, the Chief of the Forest Service, the officer in charge of public buildings and grounds and the chairmen of the Committees on the District of Columbia of the Senate and House of Representatives. At the close of each Congress the Presiding Officer of the Senate and the Speaker of the House of Representatives shall appoint, respectively Senator elect and a Representative elect to the succeeding Congress to serve as members of this commission until the chairmen of committees of the succeeding Congress shall be chosen: The officer in charge of public building sand grounds shall be the executive and disbursing officer of said commission.

- Sec.2. Said commission or a majority thereof is hereby authorized and directed to acquire such lands as in its judgment shall be necessary and desirable in the District of Columbia and adjacent areas in Maryland and Virginia, within the limits of the appropriations made for such purposes, for suitable development of the National Capital park, parkway, and playground system. That said commission is hereby authorized to acquire such lands by purchase when they can be acquired at prices reasonable in the judgment of said commission, otherwise by condemnation proceedings, such proceeding to acquire lands within the District of Columbia to be in accordance with the provisions of the Act of Congress approved August 30, 1890, providing a site for the Government printing Office (United States Statutes at Large, volume 26, chapter 837), the Chief of Engineers of the Army being, for the purposes of this Act, hereby clothed with all the power vested by the said Act of August 30, 1890, in the board created by the Act. Said commission is hereby authorized to acquire such lands, located in Maryland or Virginia, either by purchase or condemnation proceedings, by such arrangements as to acquisition and payment for the lands as it shall determine upon by agreement with the proper officials of the States of Maryland Virginia shall be subject to the approval of the President of the United States.
- Sec. 3. That there is authorized to be appropriated, each year hereafter, in the annual District of Columbia Appropriation Act a sum not exceeding one cent for each inhabitant of the continental United States as determined by the last preceding decennial census, said sum to be used by said commission for the payment of its expenses and for the acquisition of the lands herein authorized to be acquired by said commission for the purposes named, the compensation for the land, the expense of surveys, ascertainment of title, condemnation proceedings, if any, and necessary convevancing to be paid from said appropriations. The funds so appropriated shall be paid from the revenues of the District of Columbia and the general funds of the Treasury in the same proportion as other expenses of the District of Columbia. The land so acquired within the District of Columbia shall be a part of the park system of the District of Columbia and be under control of the Chief of Engineers of the United States Army; that areas suitable for playground purposes may in the discretion of said Commission, be assigned to the control of the Commissioners of the District of Columbia for playground purposes. That the land so acquired outside the District of Columbia shall be controlled as determined by agreement between said commission and the proper officers of the State of Maryland and Virginia, such agreements to be subject to the approval of the President.
- Sec. 4. Said commission shall report to Congress annually on the first Monday of December the lands acquired during the preceding fiscal year, the method of acquisition, and the cost of each tract. It shall also submit to the Bureau of the Budget on or before and the cost of each tract. It shall submit to the Bureau of the Budget on or before September 15 of each year its estimate of the total sum to appropriated for expenditure under the provisions of this Act during the succeeding fiscal year.

Approved, June 6, 1924

CAPPER-CRAMTON ACT

Act of May 29, 1930 (46 Stat. 482), as amended by the Act of August 8, 1946 (60 Stat. 960), Section 3 of the Act of July 19, 1952 (66 Stat. 781, 791), and the Act of August 21, 1958 (72 Stat. 705).

An Act for the acquisition, establishment, and development of the George Washington Memorial Parkway along the Potomac from Mount Vernon and Fort Washington to the Great Falls, and to provide for the acquisition of lands in the District of Columbia and the States of Maryland and Virginia requisite to the comprehensive park, parkway, and playground system of the National Capital.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, that there is hereby authorized to be appropriated the sum of \$13,500,000, or so much thereof as may be necessary, out of any money in the Treasury not otherwise appropriated, for acquiring and developing, except as in this section otherwise provided, in accordance with the provision of the Act of June 6, 1924, entitled "An Act providing for a comprehensive development of the park and playground system of the National Capital," as amended, such lands in the States of Maryland Virginia as are necessary and desirable for the park and parkway system of the National Capital in the environs of Washington. Such funds shall be appropriated as required for the expeditious, economical, and efficient development and completion of the following projects:

(a) For the George Washington Memorial Parkway, to include the shores of the Potomac, and adjacent lands, from Mount Vernon to a point above the Great Falls on the Virginia side, except within the City of Alexandria, and from Fort Washington to a similar point above the Great Falls on the Maryland side except within the District of Columbia, and including the protection and preservation of the natural scenery of the Gorge and the Great Falls of the Potomac, the preservation of the historic Patowmack Canal, and the acquisition of that portion of the Chesapeake and Ohio Canal below Point of Rocks, \$7,500,00; Provided, That the acquisition of any land in the Potomac River Valley for park purposes shall not debar, limit, or abridge its use for such works as Congress may in the future authorize for the improvement and the extension of navigation, including the connecting of the upper Potomac River with the Ohio River, or for flood control irrigation or drainage, or for the development of hydroelectric power.

The title to the lands acquired hereunder shall vest in the United States, and said lands, including the Mount Vernon Memorial Highway authorized by the Act approved May 23, 1928, upon its completion, shall be maintained and administered by the Director of Public Buildings and Public Parks of the National Capital, who shall exercise all the authority, power, and duties with respect to lands acquired under this section as are conferred upon him within the District of Columbia by the Act approved February 26, 1925; and said director is authorized to incur such expenses as may be necessary for the proper administration and maintenance of said lands within the limits of the appropriations from time to time granted therefor from the Treasury of the United States, which appropriations are hereby authorized.

The National Capital Park and Planning Commission is authorized to occupy such lands belonging to the United States as may be necessary for the development and protection of said parkway and to accept the donation to the United States of any other lands by it deemed desirable for inclusion in said parkway. As to any lands in Maryland or Virginia along or adjacent to the shores of the Potomac within the proposed limits of the parkway that would involve great expense for their acquisition and are held by said commission not to be essential to the proper carrying out of the project, the acquisition of said lands shall not be required, upon a finding of the commission to that effect.

Said parkway shall include a highway from Fort Washington to the Great Falls on the Maryland side of the Potomac and a free bridge across the Potomac at or near Great Falls and necessary approaches to said bridge; Provided, That no money shall be expended by the United States for lands for any unit of this project until the National Capital Park and Planning Commission shall have received definite commitments from the State of Maryland or Virginia, or political subdivisions thereof or from other responsible sources for one-half the cost of acquiring the lands in its judgment necessary for such unit of said project deemed by said commission sufficiently complete, other than lands now belonging to the United States or donated to the United States;

Provided, That in the discretion of the National Capital Park and Planning Commission, upon agreement duly entered into the State of Maryland and Virginia or any political subdivision thereof to reimburse the United States as hereinafter provided, it may advance the full amount of the funds necessary for the acquisition of the lands in any such unit referred to in this paragraph, such agreement providing for reimbursement to the United States to the extent of one-half of the cost thereof within interest within no more than eight years from the date of any such expenditure; Provided further, That in the discretion of the National Capital Planning Commission, upon agreement duly entered into between that Commission and the Maryland National Capital Park and Planning Commission, an agency of the State of Maryland, created by chapter 448 of the laws of Maryland of 1927, as amended, such portion of the said \$7,500,000 authorized to be appropriated under this paragraph as the said Federal and Maryland agencies may determine may be appropriated for the purposes set forth under paragraph (b) of this section and subject to the conditions imposed by that paragraph. The appropriation of the amount necessary for such advance, in addition to the contribution by the United States, is hereby authorized from any money in the Treasury not otherwise appropriated.

- (b) For the extension of Rock creek into Maryland, as may be agreed upon between the National Capital Park and Planning Commission and the Maryland National Capital Park and Planning Commission, for the preservation of the flow of water in Rock Creek, for the extension of the Anacostia Park system up the valley of the Anacostia River, Indian Creek, Paint Branch and Little Paint Branch, the Northwest Branch and Sligo Creek; of the Oxon Run Parkway from the District of Columbia line to Marlboro Road; and of the George Washington Memorial Parkway up the valley of Cabin John Creek, Little Falls Branch, and Willet Run, as my be agreed upon between the National Capital Park and Planning Commission and the Maryland National Capital Park Commission, \$1,500,00; Provided, That no appropriation authorized in this subsection shall be available for expenditure until a suitable agreement is entered into by the National Capital Park and Planning Commission and the Washington Suburban Sanitary Commission as to sewage disposal and storm water flow; Provided further, That no money shall be contributed by the United States for any unit of such extensions until the National Capital Park and Planning Commission shall have received definite commitments from the Maryland National Capital Park and Planning Commission for the balance of the cost of acquiring such unit of said extensions deemed by said commission sufficiently complete, other than lands now belonging to the United States or donated to the United States; Provided further, That in the discretion of the National Capital Park and Planning Commission upon agreement duly entered into with the Maryland National Capital Park and Planning Commission to reimburse the United States as hereinafter provided, it may advance the full amount of the funds necessary for the acquisition of the lands required for such extensions referred to in this paragraph, such advance, exclusive of said contribution \$1,500,000 by the United States, not to exceed \$3,000,000, the appropriation of which amount from funds in the Treasury of the United States not otherwise appropriated is hereby authorized, such agreement providing for reimbursement to the United States of such advance, exclusive of said Federal contribution, without interest within not more than eight years from the date of any such expenditure. The title to the lands acquired hereunder shall vest in the State of Maryland. The development and administration thereof shall be under the Maryland National Capital Park and Planning Commission and in accordance with plans approved by the National Capital Park and Planning Commission.
- (c) For the extension of the park and parkway system of the National Capital in the Virginia environs of Washington, as my be agreed upon between the National Capital Planning Commission and a park authority established under the Park Authorities Act of the State of Virginia (and such other public bodies as my be authorized under the laws of the State of Virginia), up the valleys of Hunting Creek, Cameron Run, Homes Run, Tripps Run, Four Mile Run, Pimmit Run, Accotink Creek, and tributaries of such streams, and over other desirable lands, \$4,500,000. No part of such sum shall be expended by the United States for any unit or such extension until the National Capital Planning Commission has received definite commitments from such park authority (and other public bodies, and the State of Virginia for two-thirds of the cost of acquiring the lands in its judgment necessary for such unit of the extension deemed by the Commission sufficiently complete. The title to the lands acquired hereunder shall vest in, and the development and administration thereof shall be under, such park authority or the State of Virginia in accordance with plans approved by the National Capital Planning Commission. Such lands shall not be used for any purpose other than the development and completion of the park and parkway system provided for in this paragraph, except with the approval and consent of the National Capital Planning Commission. No appropriation authorized in this paragraph shall be available for expenditure

until a suitable agreement has been entered into between the National Capital Planning Commission and the appropriate local authority as to sewage disposal and storm-water flow.

Sec. 2. Whenever it becomes necessary to acquire by condemnation proceedings any lands in the States of Virginia or Maryland for the purpose of carrying out the provisions of this Act, such acquisition shall be under and in accordance with the provisions of the Act of August 1, 1888 (U.S.C., p. 1302, sec. 257). No payment shall be made for any such lands until the title thereto in the United States shall be satisfactory to the Attorney General of the United States.

Sec. 3. Whenever the use of the Forts Washington, Foote, and Hunt, or either of them, is no longer deemed necessary for military purposes they shall be turned over to the Director of Public Buildings and Public Parks of the National Capital, without cost, for administration and maintenance as a part of the said George Washington Memorial Parkway.

Sec. 4. There is hereby further authorized to be appropriated the sum of \$16,000,000, or so much thereof as may be necessary, out of any money in the Treasury of the United States not otherwise appropriated, for the acquiring of such lands in the District of Columbia as are necessary and desirable for the suitable development of the National Capital park, parkway, and playground system, in accordance with the provisions of the said Act of June 6, 1924, as amended, except as in this section otherwise provided. Such funds shall be appropriated for fiscal year 1931 and thereafter as required for the expeditious, economical, and efficient accomplishment of the purposes of this Act and shall be reimbursed to the United States from any funds in the Treasury to the credit of the District of Columbia follows, to wit: \$1,000,000 on the 30th day of June, 1931; and \$1,000,000 on the 30th day of June each year thereafter until the full amount expended hereunder is reimbursed without interest.

The National Capital Park and Planning Commission shall, before purchasing any lands hereunder for playground, recreation center, community center, and similar municipal purposes, request from the Commissioners of the District of Columbia a report thereon. Said commission is authorized to accept the donation to the United States of any lands deemed desirable for inclusion in said park, parkway, and playground system, and the donation of any funds for the acquisition of such lands under this act.

Sec. 5. The right of Congress to alter or amend this Act is hereby reserved.

Sec. 6. Section 4 of Public Act 297 of the Seventieth Congress entitled "An Act authorizing the Great Falls Bridge Company, its successors and assigns, to construct, maintain, and operate a bridge across the Potomac River at or near Great Falls," approved April 21, 1928, as amended, is hereby amended by adding at the end of said section the following:

"Provided, That after the George Washington Memorial Parkway is established and the lands necessary for such parkway at and near Great Falls have been acquired by the United States, the United States may at any time acquire and take over all right, title, and interest in such bridge, its approached and approach roads, and any interest in real property necessary therefore, by purchase or by condemnation, paying therefor not more than the cost of said bridge and its approaches and approach roads, as determined by the Secretary of War under section 6 of this Act plus 10 per centum."

An Act to facilitate the management of the National Park System and miscellaneous areas administered in connection with that system, and for other purposes, approved August 8, 1953 (67 Stat. 495)

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That, in order to facilitate the administration of the National Park System and miscellaneous areas administered in connection therewith, the Secretary of the Interior is hereby authorized to carry out the following activities, and he may use applicable appropriations for the aforesaid system and miscellaneous areas for the following purposes:

- 1. Rendering of emergency rescue, fire fighting, and cooperative assistance to nearby law enforcement and fire prevention agencies and for related purposes of the National Park System and miscellaneous areas.
- 2. The erection and maintenance of fire protection facilities, water lines, telephone lines, electric lines, and other utility facilities adjacent to any area of the said national Park System and miscellaneous areas, where necessary, to provide service in such area.
- 3. Transportation to and from work, outside of regular working hours, of employees of Carlsbad Caverns National Park, residing in or near the city of Carlsbad, New Mexico, such transportation to be between the park and the city, or intervening points, at reasonable rates to be determined by the Secretary of the Interior taking into consideration, among other factors, comparable rates charged by transportation companies in the locality for similar services, the amounts collected for such transportation to be credited to the appropriation current at the time payment is received: *Provided*, That if adequate transportation facilities are available, or shall be available by any common carrier, at reasonable rates, then and in that event the facilities contemplated by this paragraph shall not be offered.
- 4. Furnishing, on a reimbursement of appropriation bases, all types of utility services to concessioners, contractors, permittees, or other users of such services, within the National Park System and miscellaneous areas: *Provided*, That reimbursements for cost of such utility services may be credited to the appropriation current at the time reimbursements are received.
- 5. Furnishing, on a reimbursement of appropriation basis, supplies, and the rental of equipment to persons and agencies that in cooperation with, and subject the approval of, the Secretary of the Interior, render services or perform functions that facilitate or supplement the activities of the Department of the Interior in the administration of the National Park System and miscellaneous areas: *Provided*, That reimbursements hereunder may be credited to the appropriation current at the time reimbursements are received.
- 6. Contracting, under such terms and conditions as the said Secretary considers to be in the interest of the Federal Government, for the sale, operation, maintenance, repair, or relocation of Government-owned electric and telephone lines and other utility facilities used for the administration and protection of the National Park System and miscellaneous areas, regardless of whether such lines and facilities are located within or outside said system and areas.
- 7. Acquiring such rights-of-way as may be necessary to construct, improve, and maintain roads within the authorized boundaries of any area of the said National Park System and miscellaneous areas, and the acquisition also of land and interest in land adjacent to such rights-of-way, when deemed necessary by the Secretary, to provide adequate protection of natural features or to avoid traffic and other hazards resulting from private road access connections, or when the acquisition of adjacent residual tracts, which otherwise would remain after acquiring such rights-of-way, would be in the public interest.
- 8. The operation, repair, maintenance, and replacement of motor and other equipment on a reimbursable basis when such equipment is used on Federal projects of the said National Park System and miscellaneous areas, chargeable to other appropriations, or on work of other Federal agencies, when requested by such agencies. Reimbursement shall be made from appropriations applicable to the work on which the equipment is used at rental rates established by the Secretary, based on actual or estimated cost of operation, repair, maintenance, depreciation, and equipment management control, and credited to appropriations currently777 available at the time adjustment is effected, and the Secretary may also rent equipment for fire control purposes to State, county, private, or other non-Federal agencies that cooperate with the Secretary in the administration of the said National Park System and other areas in fire control, such rental to be under the terms of written cooperative agreements, the amount collected for such rentals to be credited to appropriations currently available at the time payment is received. (16 U.S.C. § 1b.)
- Sec. 2. (a) The term "National Park System" means all federally owned or controlled lands which are administered under the direction of the Secretary of the Interior in accordance with the provisions of the Act of August 25, 1916 (39 Stat. 535), as amended, and which are grouped into the following descriptive categories: (1)

National parks, (2) national monuments, (3) national historical parks, (4) national memorials, (5) national

parkways, and (6) national capital parks.

(b) The term "miscellaneous areas" includes lands under the administrative jurisdiction of another Federal agency, or lands in private ownership, and over which the National Park Service, under the direction of the Secretary of the Interior, pursuant to cooperative agreement, exercises supervision for recreational, historical, or other related purposes, and also any lands under the care and custody of the National Park Service other than those heretofore described in this section. (16 U.S.C. § 1c.)

Sec. 3. Hereafter applicable appropriations of the National Park Service shall be available for the objects and purposes specified in the Act of August 7, 1946 (60 Stat. 885). (16 U.S.C. § 1d.)

An Act To amend the Federal Property and Administrative Services Act of 1949, as amended, and for other purposes, approved June 13, 1957 (71 Stat. 69)

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Federal Property and Administrative Services Act of 1949, as amended, is hereby further amended as follows:

By designating paragraphs (2) and (3) of subsection (a) of section 507 as paragraphs (3) and (4) and adding

a new paragraph (2) to read as follows:

"(2) to direct and effect the transfer to the National Archives of the United States of any records of any Federal agency that have been in existence for more that fifty years and that are determined by the Archivist to have sufficient historical or other value to warrant their continued preservation by the United States Government, unless the head of the agency which has custody of them shall certify in writing to the Administrator that they must be retained in his custody for use in the conduct of the regular current business of the said agency." (44 U.S.C. § 697).

APPENDIX B: COMPLIANCE WITH FEDERAL AND STATE LAWS, EXECUTIVE ORDERS, AND REGULATIONS

When implementing the actions described in this Draft Management Plan / Environmental Assessment, the National Park Service would adhere to applicable laws, executive orders, and regulations (except where noted and explained in the alternatives). These precepts include the following:

GENERAL

The Architectural Barriers Act of 1968 (42
USC 4151 et seq.); the Rehabilitation Act of
1973 (29 USC 701 et seq.); and the Americans
with Disabilities Act of 1990 (PL 101-336,
104 Stat. 327)

The above acts require that all developed facilities and programs be made as accessible as possible to special populations.

 Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations

Under policy established by the secretary of the interior to comply with this executive order, departmental agencies should identify and evaluate, during the scoping and/or planning processes, any anticipated effects, either direct or indirect, from the proposed project or action on minority and low-income populations and communities, including the equity of the distribution of the benefits and risks. None of the impacts of any of the alternatives would fall disproportionately on either the minority or low-income members of the region. The following facts contributed to this conclusion:

None of the alternatives would result in any identifiable adverse human health effects.

Therefore, there would be no direct or indirect negative or adverse effects on any minority or lowincome population or community.

The impacts on the natural and physical environment that would result from implementing one of the alternatives would not appreciably and

adversely affect any minority or low-income population or community.

The proposed action would not result in any identified effects that would be specific to any minority or low-income community.

The National Park Service has had an active public participation program to solicit information and comments and has equally considered all public input regardless of age, race, income status, or other socioeconomic or demographic factors.

Impacts on the socioeconomic environment that would result from implementing alternatives 2 or 3 would be marginally positive. These impacts would not occur all at one time but would be spread over a number of years.

CULTURAL RESOURCES

• The National Historic Preservation Act of 1966, as amended (16 USC 470 et seq.)

The National Park Service is mandated to preserve and protect cultural resources as stated in the act of August 25, 1916, which established the National Park Service, and in specific legislation such as the Antiquities Act of 1906, the National Environmental Policy Act, and the National Historic Preservation Act. The cultural resources of the Fort Circle Parks are to be managed in accordance with these acts and in accordance with NPS Management Policies, NPS-28, Cultural Resource Management Guideline, the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation, and other policy directives.

Section 106 of the National Historic Preservation Act of 1966, as amended, defines the obligations of the federal government regarding activities proposed for or affecting properties on or eligible for listing on the National Register of Historic Places. Federal agencies are required to take into account the potential effects of their activities on protected resources and to allow the Advisory Council on Historic Preservation and the state historic preservation officer an opportunity to

comment. Actions are determined to have no effect, an adverse effect, or an effect that is not adverse on cultural resources. Before this plan is implemented, the National Park Service would work with the historic preservation officers of Washington, D.C., the commonwealth of Virginia, and the state of Maryland, as well as the Advisory Council on Historic Preservation, to meet the requirements of section 106.

An internal section 106 form ("Assessment of Actions Having an Effect on Cultural Resources") would be completed following the approval of this plan but before the implementation of the individual proposed actions. The form would document project effects, outline actions to mitigate such effects, and document that the proposed action flowed from an approved plan meeting section 106 requirements. Cultural resource management specialists would review and certify all proposed actions affecting cultural resources.

As part of the cultural resource management responsibilities mandated by section 110 of the National Historic Preservation Act, as amended, the National Park Service inventories and evaluates all cultural resources on land under its jurisdiction or that could be affected by agency actions. Cultural resources are evaluated by applying the criteria for inclusion on the National Register of Historic Places.

Until a complete archeological inventory and evaluation of the Fort Circle Parks can be completed, all ground-disturbing actions would be preceded by an archeological evaluation to determine the level of investigation required before construction could begin.

All preservation actions proposed for earthworks would be undertaken in keeping with the draft "Guide to Sustainable Earthwork Management (1998) developed by the National Park Service in association with the Georgia Trust for Historic Preservation.

Because all alternatives recommend a course of action that might affect cultural resources listed on the National Register of Historic Places, the National Park Service would work closely with the historic preservation officers of the District of Columbia, the commonwealth of Virginia, and the

State of Maryland, as well as with the Advisory Council on Historic Preservation and the National Capital Planning Commission to determine a course of action that would avoid, reduce, minimize, or mitigate adverse effects. Local community, park neighbors, park users, D.C. Area Neighborhood Councils, local government preservation, park and planning agencies, would also be involved in reviewing and commenting on this plan.

NATURAL RESOURCES

National Environmental Policy Act of 1969

This act sets forth the federal policy to preserve important historic, cultural, and natural aspects of our national heritage. It requires federal agencies to use a systematic, interdisciplinary approach that integrates natural and social sciences in planning and decision-making that may impact the human environment. This environmental assessment was prepared pursuant to this act and its implementing regulations and guidelines. Implementing this plan will require ongoing adherence to the National Environmental Policy Act.

 Section 118 of the Clean Air Act, as amended (42 USC 7401 et seq.)

Washington, D.C., is in a class II clean air area. Under the Clean Air Act, as amended, maximum allowable increases of sulfur dioxide, particulate matter, and nitrogen oxide beyond baseline concentrations established for class II areas cannot be exceeded. Section 118 of the Clean Air Act requires all federal facilities to comply with federal, state, and local air pollution control laws and regulations. National Park Service staff would coordinate with the appropriate District of Columbia, Commonwealth of Virginia, and State of Maryland offices to ensure that all project activities would meet the requirements of federal and local air quality programs.

 Executive Order 11988, Floodplain Management

Executive Order 11988 directs agencies to avoid development in floodplains whenever there is a practicable alternative. The NPS Floodplain

Management Guideline provides requirements for implementing floodplain protection and management actions in units of the national park system. However, the guideline does not apply to certain park functions near water for the enjoyment of visitors and for activities that do not involve overnight use such as trails and picnic areas.

• Endangered Species Act of 1973, as Amended (16 USC 1531 et seq.)

Section 7 of the Endangered Species Act requires all federal agencies to consult with the U.S. Fish and Wildlife Service to ensure that any action authorized, funded, or carried out by the agency does not jeopardize the continued existence of listed species or critical habitat. Consultation with the Fish and Wildlife Service has revealed federally listed threatened, or endangered species in the vicinity of the Fort Circle Parks. Appropriate measures would be taken to avoid adverse impacts on these species as a result of implementing actions in this management plan.

Permits

The District of Columbia, Prince Georges and Montgomery Counties in Maryland, and Arlington County in Virginia have permit requirements affecting the sites. The sites must meet sanitary and storm water criteria that are applicable for projects in Washington, D.C., and Prince Georges, Montgomery, and Arlington Counties. Any other activities related to construction would be conducted in compliance with all applicable state and federal regulations.

 Section 404 of the Clean Water Act (33 USC 1344) and Section 10 of the Rivers and Harbors Act of 1899 (33 USC 401 et seq.)

The U.S. Army Corps of Engineers issues permits for work affecting navigable waters and wetlands of the United States. Section 404 of the Clean Water Act regulates the discharge of dredged material into U.S. waters, including both navigable waters and wetlands of the United States. If proposed actions were to impact U.S. waters—surface water resources in and near the Fort Circle Parks—these actions would be subject to review by the U.S. Army Corps of Engineers; a 404

permit, which is issued by the Corps of Engineers, would be required.

NPS management policies require the National Park Service to examine impacts on water resources, specifically impacts on the preservation, use, and quality of water originating, flowing through, or adjacent to park boundaries. The National Park Service seeks to restore, maintain, and enhance the quality of all surface water and groundwater within the parks, consistent with all other federal, state, and local laws and regulations. In addition, the 1972 Federal Water Pollution Control Act, as amended by the Clean Water Act of 1977, is a national policy to restore and maintain the chemical, physical, and biological integrity of the nation's waters; enhance the quality of water resources; and prevent, control, and abate water pollution.

Storm Water Rule

Under the 1987 amendments to the Clean Water Act, a storm water rule has been promulgated to regulate storm water discharges. The storm water rule (40 CFR, parts 122, 123, and 124) requires that a national pollution discharge elimination system (NPDES) storm water permit be obtained for construction activities affecting over 5 acres. The District of Columbia, which has been granted authority to administer NPDES permits by the Environmental Protection Agency, administers the storm water permitting program.

Executive Order 11990, Protection of Wetlands

Executive Order 11990 requires federal agencies to avoid, where possible, impacts on wetlands. Any permitting required under section 404 of the Clean Water Act and any state requirements for proposed actions would be met.

Any impacts on wetlands could only occur under the guidance provided within Director's Order 77-1, which may include more stringent requirements than permits required only under section 404 of the Clean Water Act.

APPENDIX C: CIVIL WAR DEFENSES OF WASHINGTON FORT SITES OUTSIDE NPS OWNERSHIP

INTRODUCTION

A number of forts that are not within NPS units are owned and managed by other public agencies in the Washington, D.C., area. These agencies are potential partners for coordinated interpretive and other programs that would relate to the entire Civil War defense system surrounding Washington. Most of the Civil War forts and batteries have been lost to urban and suburban development, but the following in public ownership have survived to the present.

Fort Ward

Historic Fort Ward and the Fort Ward Museum are within a 45-acre site in the city of Alexandria, Virginia. The city initiated the preservation of the fort in 1961 as a Civil War Centennial project and has completely restored the fort's northwest bastion. The other remaining earthworks have been preserved, and the ceremonial gate and officers' hut have been reconstructed. The Fort Ward Museum, adjacent to the fort, interprets the site's history and features exhibits on the fort system and a variety of Civil War topics. The museum also contains a research library and a collection of Civil War artifacts. The museum offers educational and interpretive programs throughout the year, including an interpretive video. This restored bastion presents the capital area's best demonstration of how the Civil War forts appeared, and the museum and research collection are a source of extensive information on the Civil War defense system.

Fort C. F. Smith

Fort C. F. Smith is on a 19-acre estate that Arlington County, Virginia, acquired in 1995 and opened to the public in 1997. Plans are to preserve and interpret the earthworks in their existing condition.. The tree canopy and stabilizing ground cover will be maintained. The park interprets the Civil War, the fort, the defenses of Washington, and the prehistory of the sites, landscape, archeology, and natural resources.

Fort Ethan Allen

Arlington County also owns and manages Fort Ethan Allen. Earthworks and trenches are evident in this location. Interpretive markers have been placed in the site, which is in a historic district. Few visitors come who are interested in the history of the fort.

The Virginia Civil War Trail Project has provided uniform signs for the forts listed above. To encourage tourism to the historic sites, maps and literature are being produced that will identify over 200 Virginia Civil War sites.

Fort Whipple

Fort Whipple occupied the site of present-day Fort Myer, adjacent to Arlington National Cemetery. Although there are no remnants of the original defenses, an interpretive sign was placed at the site in the spring of 1998, and there are plans to acquire a cannon to mark the site.

Fairfax County Sites

A number of remnant Civil War fortifications are in Fairfax County, Virginia, but very little preservation or interpretation has been accomplished. The sites include unstabilized earthworks remaining at Fort Willard and a six-gun battery position near the location of Fort Farnsworth. A sign has been placed at a partial reconstruction of what is known as "Fort Freedom Hill" in Vienna, Virginia, which was a fortified position.

Battery Bailey

Battery Bailey is the sole remnant of the Civil War Defenses in Montgomery County, Maryland. The Maryland National Capital Park and Planning Commission purchased the property in 1951, and the Montgomery County Department of Parks manages the site. The battery is in a park adjacent to the Westmoreland Hills Recreation Center. The earthworks have been stabilized, and split-rail fencing surrounds the site to prevent foot traffic on

the earthworks. A historical marker has been erected and an interpretive display faces the battery.

Other Related Sites

A number of Civil War related historic sites in the Washington, D.C., area could be interpreted in relation to the Civil War Defenses of Washington. These are listed below:

- Arlington House, the Robert E. Lee Memorial, served as a headquarters for the Union Army generals who commanded the system of forts. The memorial is managed by the George Washington Memorial Parkway and is within Arlington National Cemetery, not far from the site of Fort Whipple.
- President Lincoln and Soldiers' Home
 National Monument includes Anderson Cot tage, on the grounds of the U.S. Soldiers' and
 Airmen's Home. Anderson Cottage was
 President Lincoln's summer White House and
 retreat from the city. He spent approximately
 one-fourth of his presidency at the site, and it

was there that he wrote the final draft of the Emancipation Proclamation. The cottage is about a mile from Fort Stevens. Lincoln traveled from there to witness the battle in 1864.

- The Montgomery County Department of Parks manages sites associated with the Battle of Fort Stevens. Confederate officers during the battle occupied the Jessup Blair House. At the nearby "Silver Spring" a shell from the fort killed a Confederate soldier. In Woodside Park, at Georgia Avenue and Spring Street, a plaque has been placed interpreting the attack of Jubal Early's forces.
- The graveyard of Grace Episcopal Church, several miles north on Georgia Avenue, is the burial site of unknown Confederate soldiers killed in the Battle of Fort Stevens.
- Walter Reed Medical Center also has a site associated with the Battle of Fort Stevens. A sign marks the site of the "sharp-shooter tree" used by Confederate soldiers during the battle. There is also a medical museum containing Civil War era exhibits.

APPENDIX D: RELATED PLANNING EFFORTS IN THE WASHINGTON, D.C., AREA

NATIONAL PARK SERVICE PLANS

Rock Creek Park General Management Plan and Environmental Impact Statement

A general management plan / environmental impact statement being prepared for Rock Creek Park will guide the management and operation of the park for the next 10–15 years. The plan, which will present and analyze management alternatives, will address traffic patterns and safety, noise, and air pollution in and around the park.

Rock Creek Park Comprehensive Interpretive Plan

A comprehensive interpretive plan underway for Rock Creek Park will identify interpretive themes and strategies for interpretive programs. This plan is being prepared in concert with the general management plan and will complement the management direction of the final general management plan.

Rock Creek Park Studies and Action Plans

The following studies and plans for Rock Creek Park have been completed and are periodically updated: Historic Resource Study for Rock Creek (1990), Draft Park Resources Management Plan (1996), and Statement for Management (1985).

Other project requests are being developed, principally a historic structures report and preservation needs assessment for Battleground National Cemetery.

Rock Creek Park Transportation/Safety Study

As part of the planning process, a special study of transportation in Rock Creek Park and surrounding streets was prepared. The study documents traffic patterns and safety and measures air pollution and noise. To investigate traffic-related aspects of the park thoroughly, a traffic model was developed to forecast traffic conditions in the area. Robert Peccia and Associates, a traffic engineering firm contracted by the National Park Service, adapted and refined the Metropolitan Washington Council

Of Governments regional data to build the Rock Creek Park transportation model for the network of streets and roads around the park. Traffic modeling was conducted for the alternatives considered in the draft general management plan. The environmental consequences section incorporates the findings of this study.

Anacostia Park Management Plan / Environmental Impact Statement

A general management plan / environmental impact statement will be undertaken shortly for Anacostia Park. A river walk plan to be prepared by the National Park Service and the District of Columbia's Office of Planning will be incorporated into the general management plan.

RELATIONSHIP OF THIS PLAN TO REGIONAL PROGRAMS

District of Columbia Scenic Byways Program

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) authorized the National Scenic Byways Program. This program recognizes roads passing through corridors that are of great interest because they are "representative, unique, or irreplaceable" in regard to scenic, historic, natural, cultural, recreational, or archaeological qualities. To be designated a national scenic byway, a road must be a state-designated scenic byway (or designated by a federal land management agency with state concurrence), possess at least one of the six intrinsic qualities listed above, have a completed corridor management plan, and accommodate two-wheel drive passenger vehicles with standard clearances. In addition, where feasible, the road must accommodate bicycles and pedestrians.

National designation as a scenic byway allows access to ISTEA funds for the protection of the intrinsic qualities of the road and the enhancement of the use of the road by visitors. This program benefits many communities and regions for economic development, encouragement of regional pride, and protection of the resources.

The first step toward national designation is the designation of a road as a scenic byway by the state or federal agency that manages the road. Beach Drive and the Rock Creek and Potomac Parkway were jointly designated by the District of Columbia and the National Park Service in 1994. The District of Columbia has asked the National Park Service to seek national designation for these federally managed roads. However, the decision to seek national designation should follow logically from the overall vision and plan for the park; therefore, the National Park Service will not take action toward national scenic byway designation pending the conclusion of the general management planning process.

Bicycle Plan for the National Capital Region

The National Capital Regional Transportation Planning Board of the Metropolitan Washington Council of Governments adopted the *National Capital Region Bicycle Plan* in July 1995. The plan advocates improving major corridors near Rock Creek Park and extending the bicycle trail along Beach Drive from the District line to Maryland Route 410 (the "East-West Highway").

Chesapeake Bay Program

The Fort Circle Parks are in the larger Chesapeake Bay watershed. On October 29, 1993, the National Park Service signed a memorandum of understanding with the Environmental Protection Agency and became a formal participant in the Chesapeake Bay Program, along with the District of Columbia, the commonwealths of Virginia and Pennsylvania, and the state of Maryland. In part, this agreement represents a commitment to implement a basinwide plan or strategy to reduce nutrient inputs to the bay by 40% by the year 2000. In joining the program, the National Park Service agrees to contribute to the restoration, interpretation, and conservation of the many valuable resources of the Chesapeake Bay.

Comprehensive Plan for the National Capital

The District of Columbia Self-Government and Governmental Reorganization (Home Rule) Act of 1973 called for the District of Columbia and the National Capital Planning Commission to develop a comprehensive plan. The plan elements, which

were adopted in 1984, 1985, and 2000, address all aspects of governing the District: parks, open space, and natural features; economic development; housing; environmental protection; transportation; human services; and land use.

Extending the Legacy: Planning America's Capital for the 21st Century

The National Capital Planning Commission has released its new *Plan for Washington's Monumental Core*. The plan presents a vision of what the National Mall and surrounding areas may look like in 50 to 100 years. While the plan does not address the Fort Circle Parks or surrounding neighborhoods, many of the areas along the Rock Creek and Potomac Parkway would be affected. The plan emphasizes providing access to the Potomac River waterfront, developing public open places, expanding public transportation opportunities, and redefining the network of roadways around the monumental core.

Montgomery County Master Plans and Maps

The master plans of Montgomery County, Maryland, establish specific policy guidelines for land use, transportation, conservation, and open space and parks. The plans include Montgomery County and the Silver Spring and Bethesda / Chevy Chase planning areas adjacent to Rock Creek Park.

Strategic Transportation Plan for the District of Columbia

The 1997 Strategic Transportation Plan presents the District's vision for the city's transportation system. The plan advocates strategies to improve the efficiency of the current transportation system, reduce dependency on single occupancy vehicle use, intercept automobile traffic at the edges of the city, and offer residents and tourists alternatives to the automobile. The plan calls for bicycle paths along Beach Drive and Rock Creek and Potomac Parkway and identifies portions of Rock Creek Park as "gateway" areas.

District of Columbia Historic Preservation Plan

The District of Columbia Historic Preservation Plan 2000 establishes a vision for historic preservation within the District of Columbia. It

APPENDIXES

enumerates the public policies, goals, and objectives that establish a framework for preservation city-wide. In its eight Ward Plans, it highlights the historic strengths and preservation needs in each of the local communities that make up the District of Columbia. It sets out a process for the public to

share in developing this vision, and it discusses the specific programs and services that the community can draw upon through the District of Columbia Historic Preservation Office. The Fort Circle Parks are very briefly described and are individually listed within each ward.

APPENDIX E: COST ESTIMATES

The cost estimates below are "Class C" cost estimates. Because the plan is conceptual, these represent a "best guess" estimate and have a relatively low degree of accuracy. These estimates, which are based on the cost of similar construction, provide a means of comparing the alternatives but should not be used for funding requests.

Once design planning begins, the scope of work necessary will be reevaluated. A second, somewhat more accurate, "Class B" estimate will be made

following preliminary design. A third, "Class A" estimate will be made at the end of design and with completed construction documents in hand.

Like the "Class C" cost estimate, the "life cycle costs" shown below are for comparison purposes only. They provide a means of indicating the yearly and total costs over the life of the plan for each alternative but are subject to the same low degree of accuracy attendant at this stage of development.

ALTERNATIVE 1: MAINTAIN CURRENT MANAGEMENT

Element	Initial Capital Costs	Ongoing Operating Costs
Repair and/or upgrade recreational facilities	\$290,000	\$25,000/year
Install interpretive signs and waysides	\$250,000	\$24,000/year
ONPS (currently \$1.04 million)	*	No additional
Total anticipated costs	\$540,000	\$49,000/year

ALTERNATIVE 2: RECONNECTING THE FORTS

Element	Initial Capital Costs	Ongoing Operating Costs
Designate foot trail linking forts; produce interpretive materials	\$1,280,000	\$110,000/year
Repair and/or upgrade recreational facilities (ballfields, basketball and tennis courts, picnic areas)	\$290,000	\$22,000/year
Stabilize selected earthwork and perform selected vegetation management	\$240,000	\$18,000/year
Clear selected areas in Fort Foote and Fort Totten to enhance interpretation	\$20,000	\$2,000/year
Upgrade existing restrooms, street furniture, and parking	\$601,000	\$50,000/year
ONPS (currently \$1.04 million)		\$260,000 additional/year
Total anticipated costs	\$2,431,000	\$462,000/year

ALTERNATIVE 3: CIVIL WAR DEFENCES OF WASHINGTON

ALTERNATIVE 5. CIVIL WAR	Initial Capital	Ongoing
Element	Costs	Operating Costs
Stabilize selected earthwork and	- 100 MO	Printed and Control
perform selected vegetation		
management; control erosion where		
necessary	\$225,000	\$94,000/year
Restore the CCC-era Fort Stevens	\$125,000	
earthworks		\$17,000/year
Repair and/or upgrade recreational		
facilities (ballfields, basketball and		
tennis courts, picnic areas)	\$290,000	\$25,000/year
Develop audio tour and videotape for		
Fort Circle Parks	\$340,000	\$3,000/year
Design Fort Circle logo	5,000	None
Upgrade existing restrooms, street	₩	*
furniture, and parking	\$633,000	\$50,000/year
Furnishings for visitor contact		
facility to be developed near Fort	\$13,000	NOTES STORY OF THE PARTY OF THE
Stevens		\$2,000/year
Design exhibit for Fort Marcy	\$10,000	None
Upgrade furnishings in Fort Dupont		
activity center to use as education	20	
center for school and community	\$63,000	
groups		\$2,000/year
Install a kiosk near earthworks at		
Fort Dupont with exhibit panels	\$15,000	None
Total anticipated costs	\$1,719,000	\$582,000/year

^{*}ONPS, or "Operation of the National Park Service" funds include staff salaries.

None of the three parks break out staff time and costs specifically for the Fort Circle Parks.

APPENDIX F: FORT CIRCLE PARKS — NATIONAL PARK SERVICE SITES

Site	Description	Location	Condition
	Rural forested site on the Potomac	Prince Georges County,	Earthworks in good
Fort Foote	River; Rodman cannons; interpre-	MD	condition
201120016	tive signs; trail; picnic area; river		
	access	<u> </u>	
Fort Greble	Wooded area; interpretive sign;	I-295, near Elmira St.	Vegetation and under-
	remains of rifle trenches	and Nichols Ave. SW	story are overgrown
70	Mixed forested area; small picnic	I-295, near South Capi-	Vegetation and under-
Fort Carroll	area and pavilion; interpretive sign;	tol St. and Martin	story are overgrown
	remains of rifle trenches	Luther King Blvd. SW	
F2 4 C4 4	Mixed forest with open fields;	W Street, Good Hope	Fort ruins overgrown
Fort Stanton	partial ruins of substantial fort site;	Rd. and Fort Dr. SE	with vegetation;
	hiker/biker trail; interpretive sign	W.C C. III	hiker/biker trail eroded
D 44 D' 1 44	Mixed forest with open field; small	W Street, Good Hope	Rifle trenches are
Battery Ricketts	picnic area and pavilion; interpre-	Rd. and Fort Dr. SE	overgrown with vege-
	tive sign; remains of rifle trenches	D-44 - Di-1-44 - E-4	tation and understory
	Largely wooded corridor; hiker/biker trail	Battery Ricketts to Fort	Hiker/biker trail
Fort Cinals	niker/biker trail	Davis, Fort Davis to	eroded in sections
Fort Circle		Fort Dupont, Fort Du-	
Corridor East		pont to Fort Chaplin, Fort Chaplin to Fort	
		Mahan	
	Mixed forest and mowed field;	Near Pennsylvania Ave.	Fort ruins overgrown
	basketball court; hiker/biker trail;	and Alabama Ave. SE	but in good condition;
Fort Davis	interpretive sign; Fort Davis Dr.;	Lind / Habania / 140. 62	hiker/biker trail eroded
	small fort ruins		macronici nun crodod
	Mixed forest, fields, and transition	Bounded by Alabama,	Fort ruins overgrown
	areas; picnic areas, community gar-	Massachusetts, Minne-	but in good condition;
	dens, activity center; amphitheater;	sota Aves. and Ridge	picnic area and road
F	ice rink; hiker/biker trail; Fort Davis	Rd.; fort site entrance	encroach on historic
Fort Dupont	and Fort Dupont Drs., Randall	on Alabama Ave. SE	resource
	Circle within park boundaries;		
	interpretive trail and signs; picnic		
	area with tables; fort ruins		
	Mixed forest with open areas; D.C.	East Capitol St. and	Fort ruins in good con-
	day camp; picnic tables; hiker/biker	Texas Ave. SE	dition; lack of inter-
Fort Chaplin	trail; interpretive signs; fort ruins		pretation and desig-
*			nated access to historic
			resource
	Mixed forest and fields; ballfield;	Benning Rd. and 42nd	Remaining historic
Fort Mahan	picnic tables; interpretive sign;	St. NE	fort and rifle trenches
TOIL MANNA	perimeter trail; hiker/biker trail; rifle		overgrown; hiker/biker
	trenches		trail eroded
	Mixed forest and fields; picnic	Between 13th and 14th	Partial remains of fort
Fort Bunker Hill	table; amphitheater; interpretive	Sts. and Otis and Perry	small, but in good
	sign; fort remains	Sts. SE	condition
	Mixed forest and fields; loop road	Eastern Ave. and	Mixed woods and
Barnard Hill	with picnic area; interpretive sign	Bunker Hill NE	green fields in good
			condition

Site	Description	Location	Condition
Fort Circle Corridor at Gallatin and Galloway Streets	Mowed green strip with wooded areas; baseball field; identification sign	Between Gallatin and Galloway Sts. from Eastern Ave. to Fort Totten NE	Mowed areas in good condition adjacent to wooded strips with thick understory
Fort Totten	Mixed forest with open fields; picnic tables; community gardens; interpretive sign; earthworks	Adjacent to Fort Totten Metro station, Fort Tot- ten Dr. and Gallatin St. NE	Significant erosion of original earthworks
Fort Circle Corridor — Fort Totten to Fort Slocum	Mowed green strip with mixed woods; community gardens; identification sign	Between Fort Drive and 1st St., between Galla- tin St., 3rd St., and Oglethorpe St. NE	Mowed grassy areas in good condition
Fort Slocum	Mixed forest with open fields; picnic pavilion; interpretive sign; rifle trenches	Kansas Ave. and Madi- son St. NW	Few remains of rifle trenches overgrown
Fort Circle Corridor — Fort Slocum to Fort Stevens	Mowed green strip; community gardens; identification sign	From 3rd St. and Piney Branch Rd. to Fort Dr. and Missouri Ave. NW	Mowed grassy areas in good condition
Fort Stevens	Partially reconstructed fort with earthworks; two cannons; monuments and plaques	Piney Branch Rd. and Quackenbos Rd. NW	Partially reconstructed fort needs rehabilita- tion; earthworks in fair condition
Battleground National Cemetery	National military cemetery; rostrum and flagpole; historic caretaker lodge	Georgia Ave. between Van Buren and Whittier Sts. NW	Cemetery and care- taker's lodge in fair condition
Fort Circle Corridor — Fort Stevens to Fort DeRussy	Mowed green strip with wooded area; community gardens	Between Fort Stevens and Oregon Ave. near Military Rd. NW	Mowed grassy areas in moderately good condition; some erosion from foot traffic
Fort DeRussy	Mixed forest; monument; interpretive sign; carthworks	Rock Creek Park NW	Extensive erosion of earthworks; over- grown with vegetation
Fort Circle Corridor — Fort DeRussy to Fort Reno	Mixed forest and mowed areas	Along Fort Dr, between Fort DeRussy and Nebraska Ave. NW	Wooded and open fields in good condition
Fort Reno	Recreation fields, multiple-use ball- fields; some trees; community gar- dens; DC reservoir; interpretive sign	Chesapeake and 40th Sts. NW	Playing fields in good condition
Fort Bayard	Playground, ballfield	Western Ave. and River Road NW	Playground and ballfield in good condition
Fort Circle Corridor — Fort Reno to Battery Kemble	Mowed grassy parcels	Nebraska Ave. NW	Parcels in good condition
Battery Kemble	Wooded ravine; recreation trail; picnic tables; interpretive sign	Near Chain Bridge Rd. NW	Areas overgrown but in good condition
Fort Marcy	Mixed forest with open areas; parking lot; picnic tables; interpretive signs; cannon; rifle trenches; earthworks	George Washington Memorial Pkwy, Fairfax County, VA.	Earthworks and rifle trench in excellent condition

BIBLIOGRAPHY

Cooling, Benjamin Franklin III, and Walter W. Owen II

Mr. Lincoln's Forts: A Guide to the Civil War Defenses of Washington. N.p. White Mane Publishing Company.

District of Columbia. Office of Policy and Evaluation

"A Brief History of the Fort Drive — Evolution of Its Concept and Function. In appendix to report on March 20–21,1947, Commission Meeting.

2000 District of Columbia Historic Preservation Plan. 44 pp.

Fred Tuemmler and Associates

"Fort Park System." Prepared for the National Capital Planning Commission by Fred Tuemmler and Associates, urban and regional planning consultants, College Park, MD.

Robert D. Higgins and Deanna Greco

"Viewing Civil War History from a Natural Resource Window." Paper delivered at the George Wright Society Biennial Conference in Denver, Colo. April 2001.

Juárez and Associates, Inc.

1997 Rapid Ethnographic Assessment: Park Users and Neighbors, Civil War Defenses of Washington and Anacostia Park, District of Columbia, for Park Management Plans. Prepared for the National Park Service by Juárez and Associates, Inc., Washington, D.C.

McMillan Commission

1902 The Improvement of the Park System of the District of Columbia.

Metropolitan Washington Air Quality Committee

1997 Air Quality Trends in the Metropolitan Washington Area: 1985–1996. Washington, DC.

Metropolitan Washington Council of Governments

1994 Cooperative Forecasting: Round Five Technical Report,

National Park Service, United States Department of the Interior

"A Brief History of the Fort Drive — Evolution of Its Concept and Function," by T. C. Jeffers. In appendix to March 20–21, 1947, Report, NCP&P Commission Meeting.

1968 Fort Circle Parks Master Plan.

1988 Management Policies.

"Civil War Defenses of Washington, D.C.: A Cultural Landscape Inventory," by Jacqui Handly.

1998a Draft Guide to Sustainable Earthworks Management, by National Park Service in association with the Georgia Trust for Historic Preservation.

1998b "A Historic Resource Study: The Civil War Defenses of Washington (draft)," by Dale Floyd.

BIBLIOGRAPHY

1998c National Park Service Procedural Manual 77-1: Wetland Protection. Technical Report NPS/NRWRD/NRTR-98/203. Water Resources Division, Fort Collins, Colorado.

2001 Management Policies 2001.

Shaheen, Chris

"The Fort Drive: The Influence and Adaptation of a 20th Century Planning Effort in Washington, D.C."

PREPARERS OF DOCUMENT

NATIONAL PARK SERVICE

Denver Service Center

Craig Cellar, Job Captain. Responsible for coordinating data collection, writing general sections and descriptions of the alternatives. B.A., Anthropology, and B.A., History; 28 years with National Park Service.

Karen Arey, Landscape Architect. No writing responsibilities; team focus was landscape architecture; 10 years with National Park Service.

Mary Frye, Historian, former Job Captain. Responsible for writing first draft of plan; 8 years with National Park Service.

Paul Lederer, Landscape Architect, retired.

George Washington Memorial Parkway

Audrey Calhoun, Superintendent Deborah Feldman, Park Planner

Rock Creek Park

Adrienne Applewhaite-Coleman, Superintendent Cindy Cox, Assistant Superintendent Bob Ford, Natural Resources Specialist Steven Strach, former Cultural Resources Specialist Julia Washburn, former chief of Cultural Resources Management and Visitor Services

National Capital Parks-East

Roy Ashley, Park Ranger
John Hale, Superintendent
Jackie Handley, Cultural Landscape Architect
Karen Taylor-Goodrich, Assistant Superintendent
Stephen Syphax, Chief of Resources Management
Michael Wilderman, Resources Management Specialist, former Job Captain

Washington Office

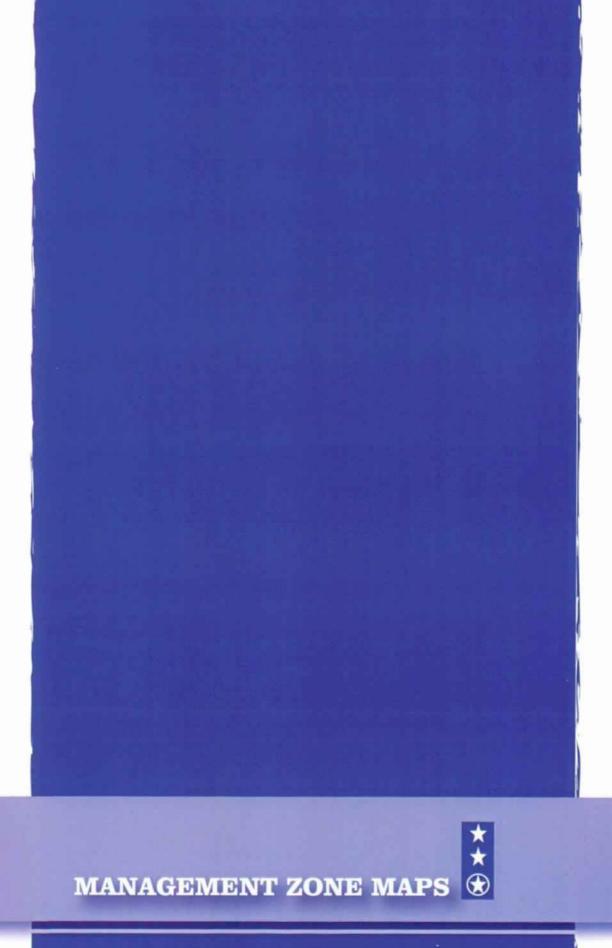
Betty Janes, Outdoor Recreation Specialist/Project Manager Nat Kuykendall, Systems Analyst, former Job Captain

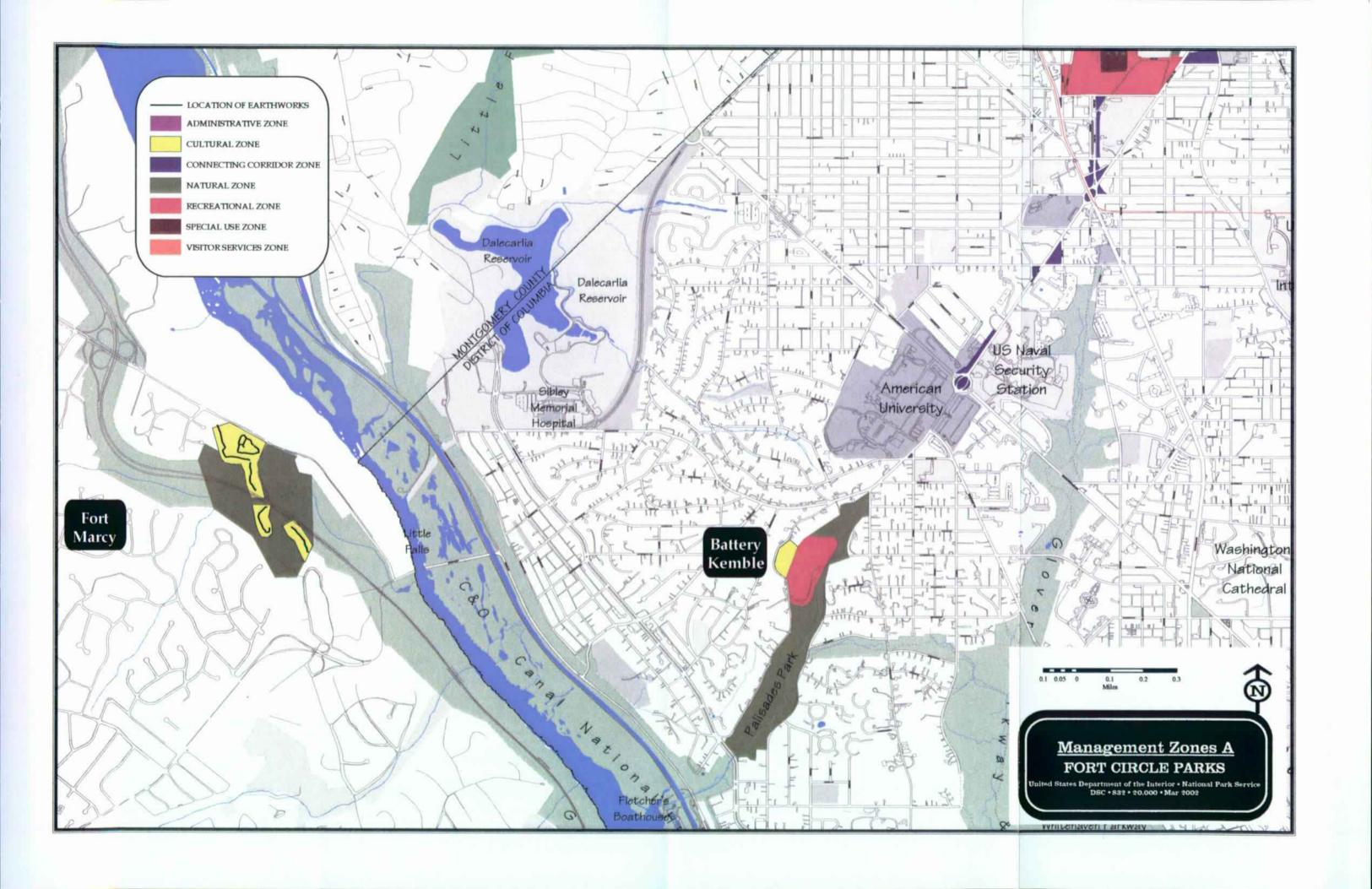
National Capital Region

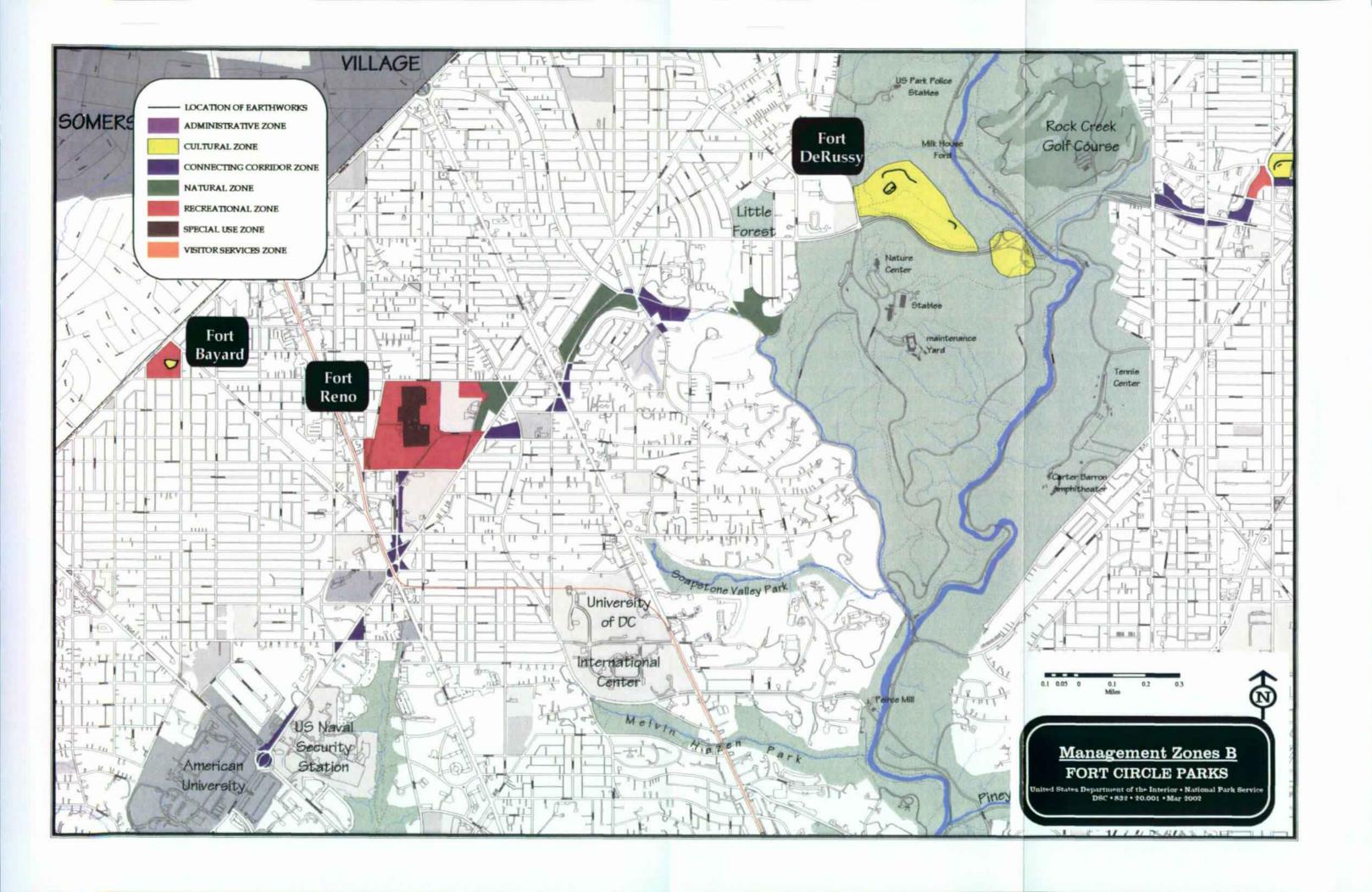
John Parsons, Associate Regional Director for Stewardship and Partnership Gary Scott, Regional Historian Patrick Gregerson, Chief of Planning and Geographic Information Systems

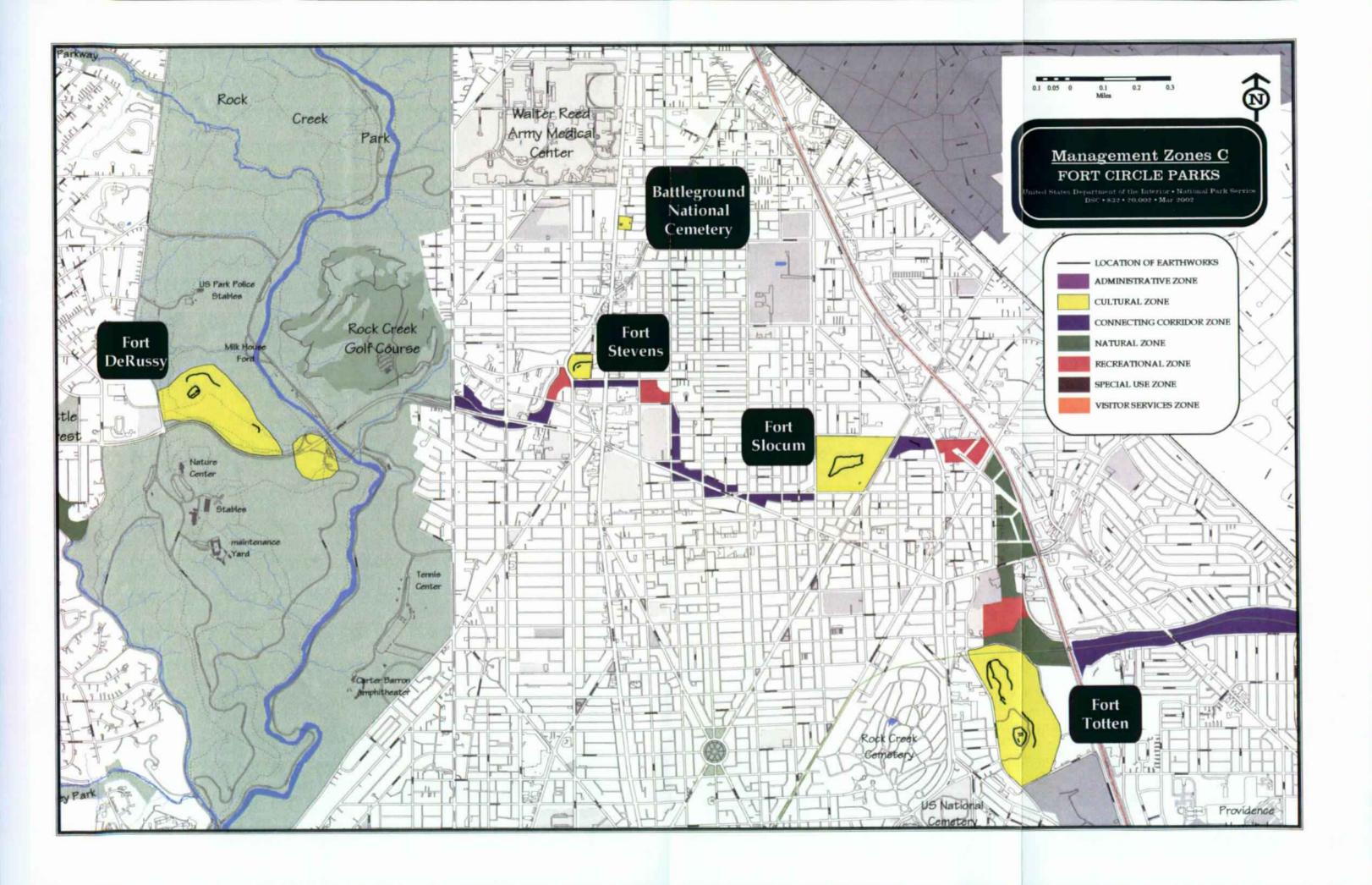
Publication Services, Denver Service Center

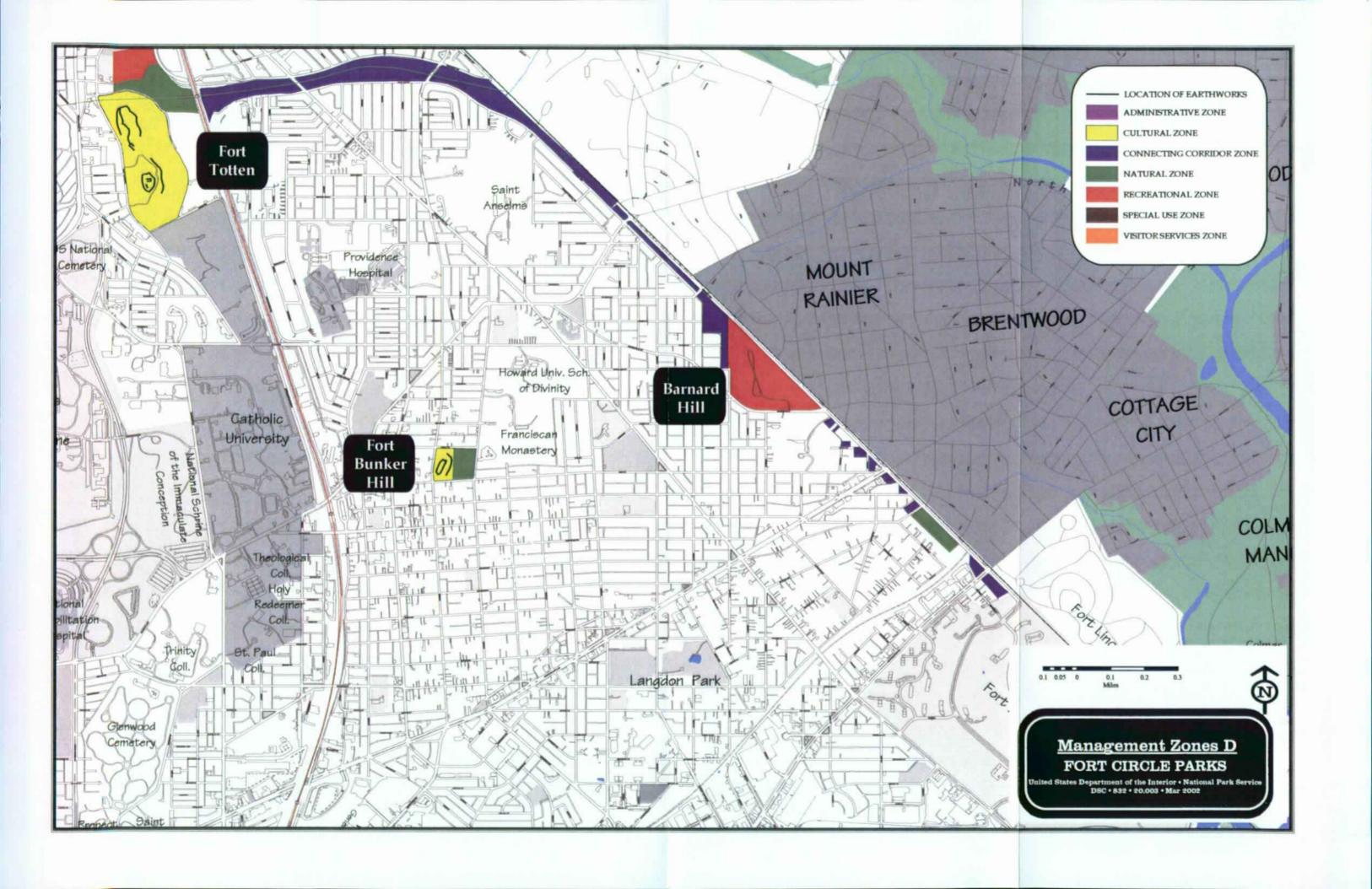
Lou Layman, Writer-Editor Ruth Eitel, Visual Information Specialist

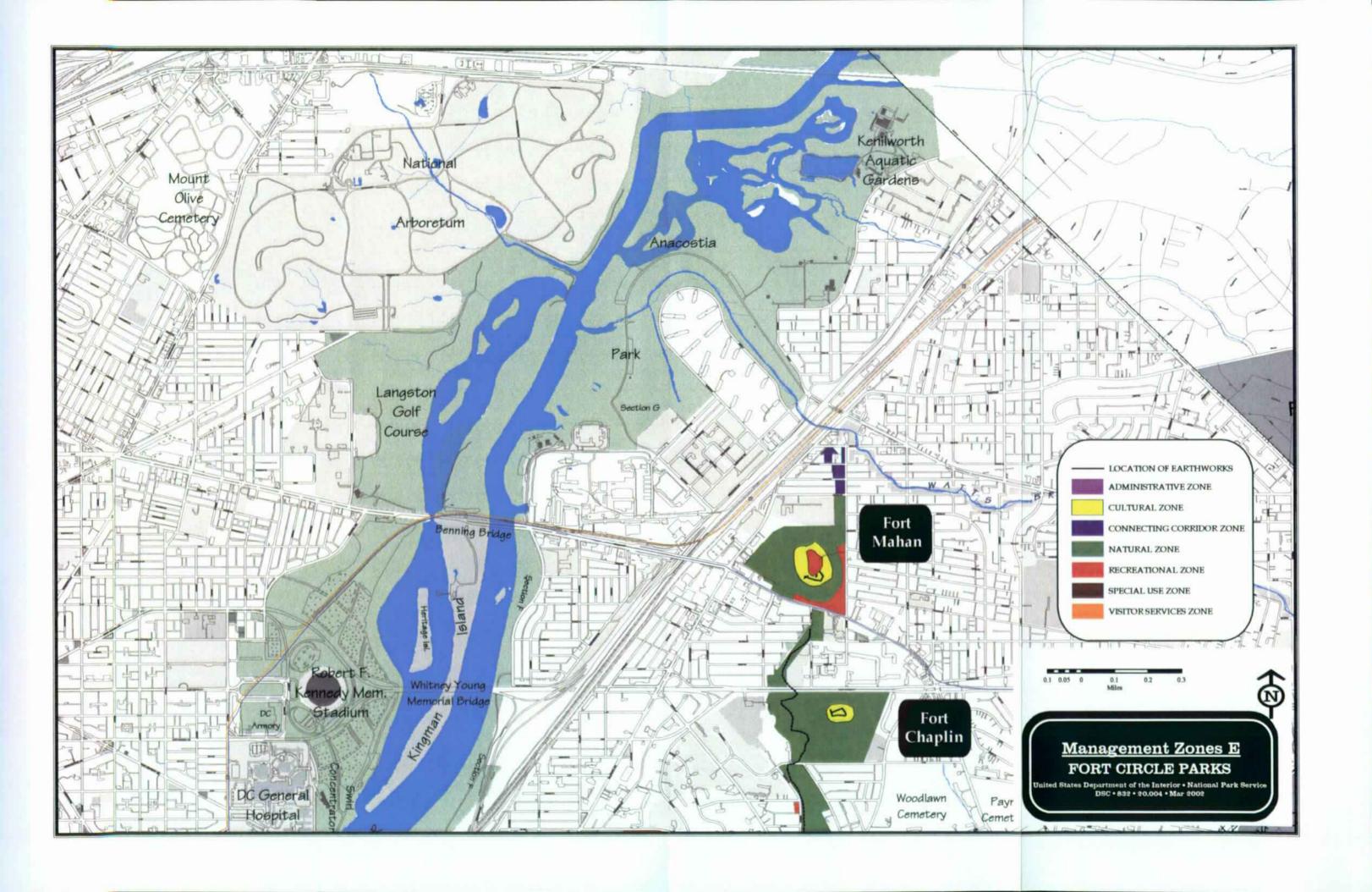


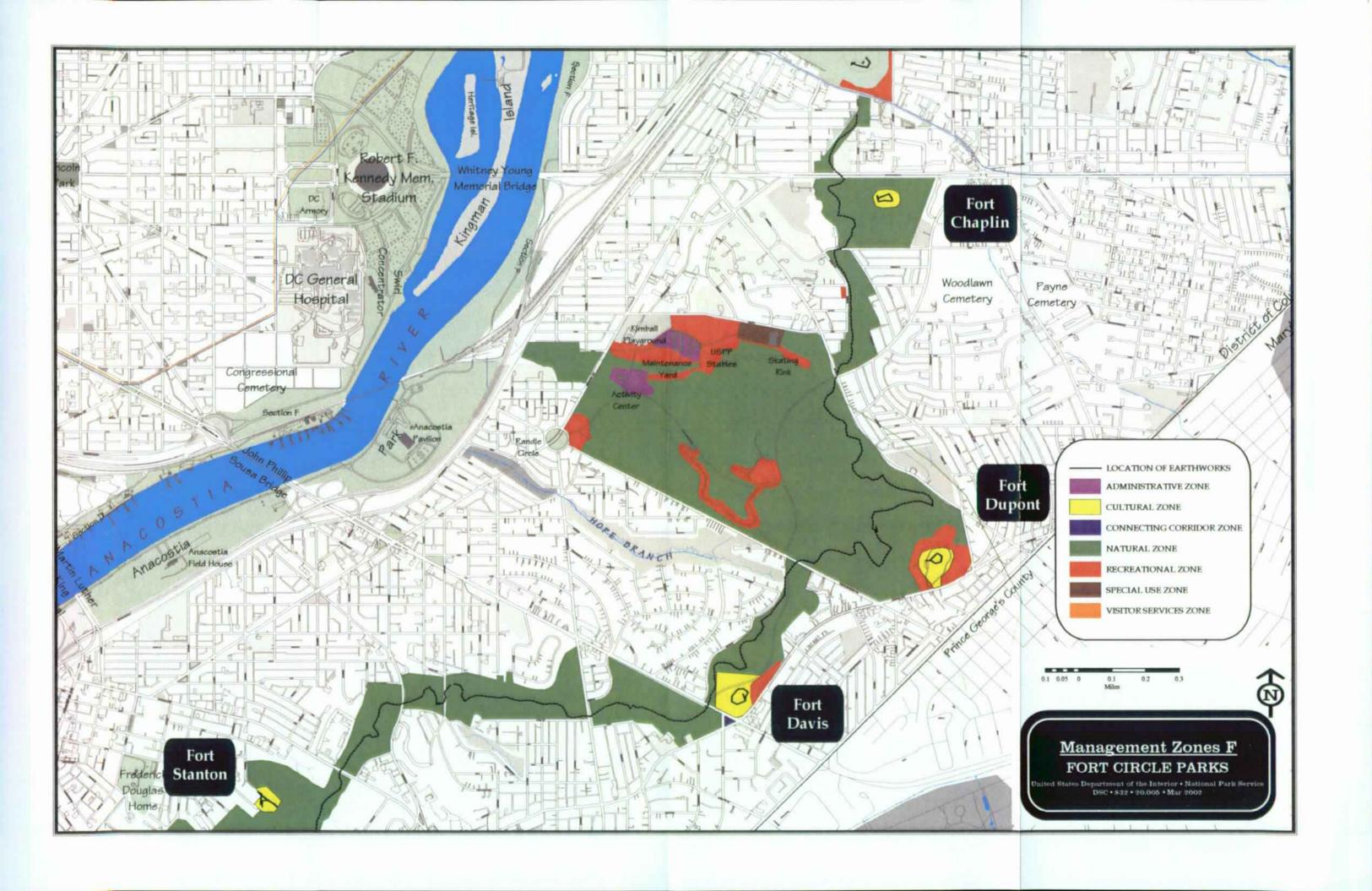


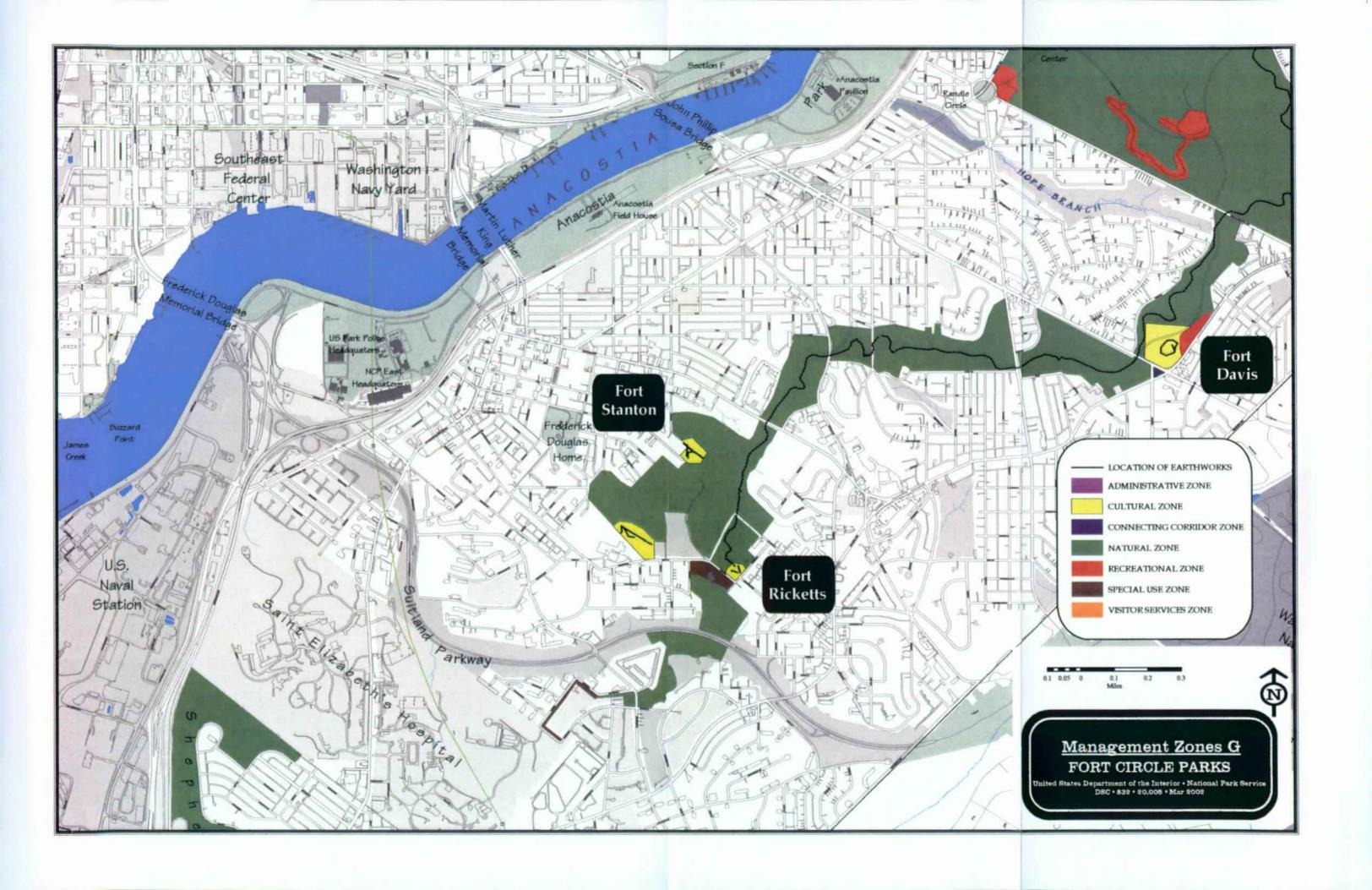


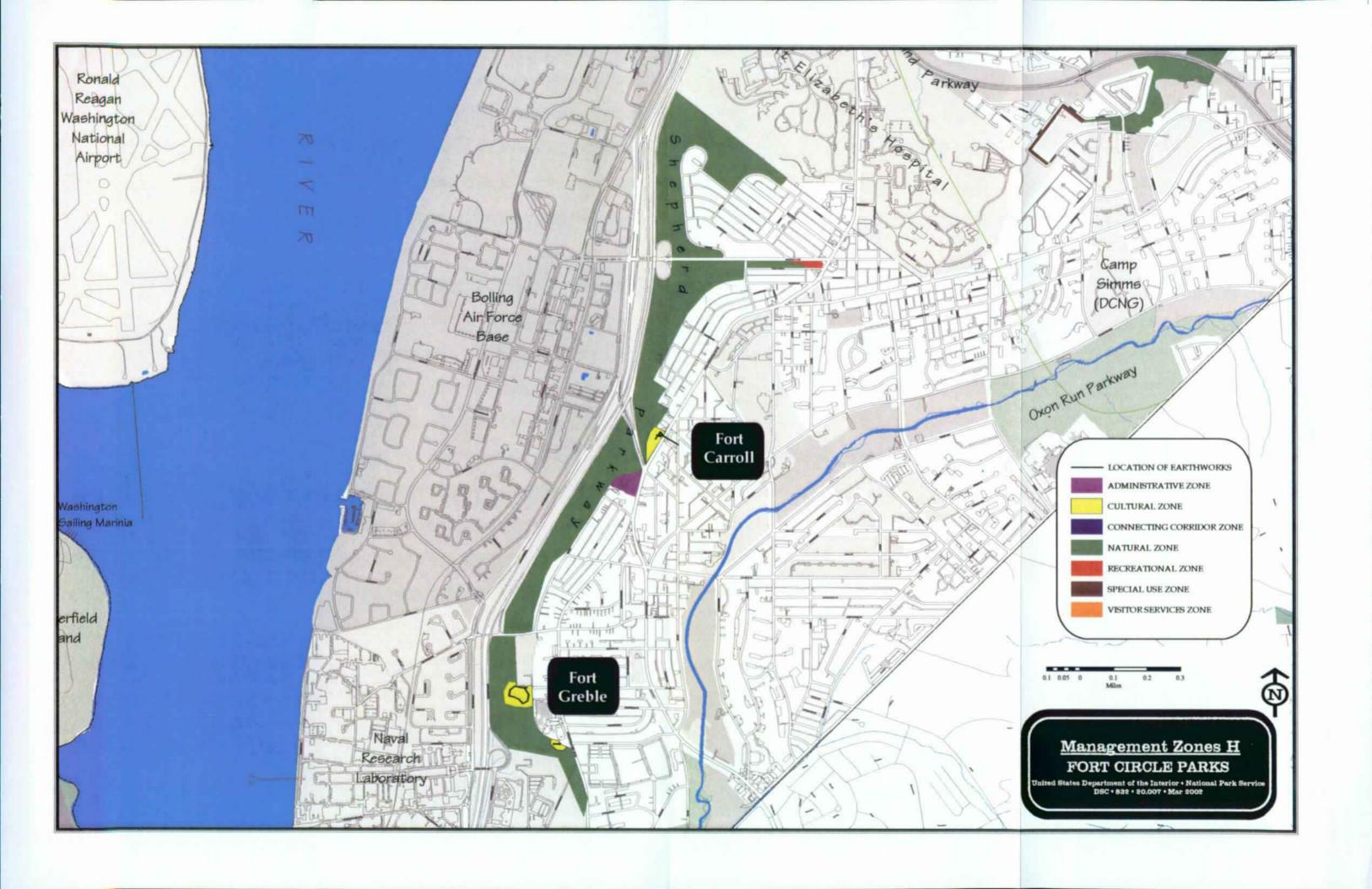


















As the nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources, this includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historical places; and providing for the enjoyment of life through outdoor recreation. The department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen praticipation in their care. The department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration

NPS D-10 September 2002 / Printed on recycled paper

