

CHAPTER 1.0 PURPOSE AND NEED OF THE PROPOSED ACTION

1.1 INTRODUCTION

The National Park Service (NPS) proposes a draft General Management Plan (GMP) and Environmental Impact Statement (EIS) for Great Falls Park, Virginia (the park). The draft GMP/EIS, referred to as “the plan” in this document, establishes a vision for managing Great Falls Park, Virginia over the next 10 to 15 years, and includes a framework for decision-making and problem solving that is based on that vision. The plan provides guidance on how to best protect the park’s resources while providing for quality visitor experiences.

As part of this plan, an EIS has been prepared in accordance with the National Environmental Policy Act of 1969 (NEPA), as amended, the Council on Environmental Quality (CEQ) regulations implementing NEPA, and NPS Director’s Order 12, the NPS’s NEPA Policy Manual. The EIS identifies issues and concerns that the park faces, presents two management alternatives, and analyzes the impacts that each of the alternatives may have on environmental resources.

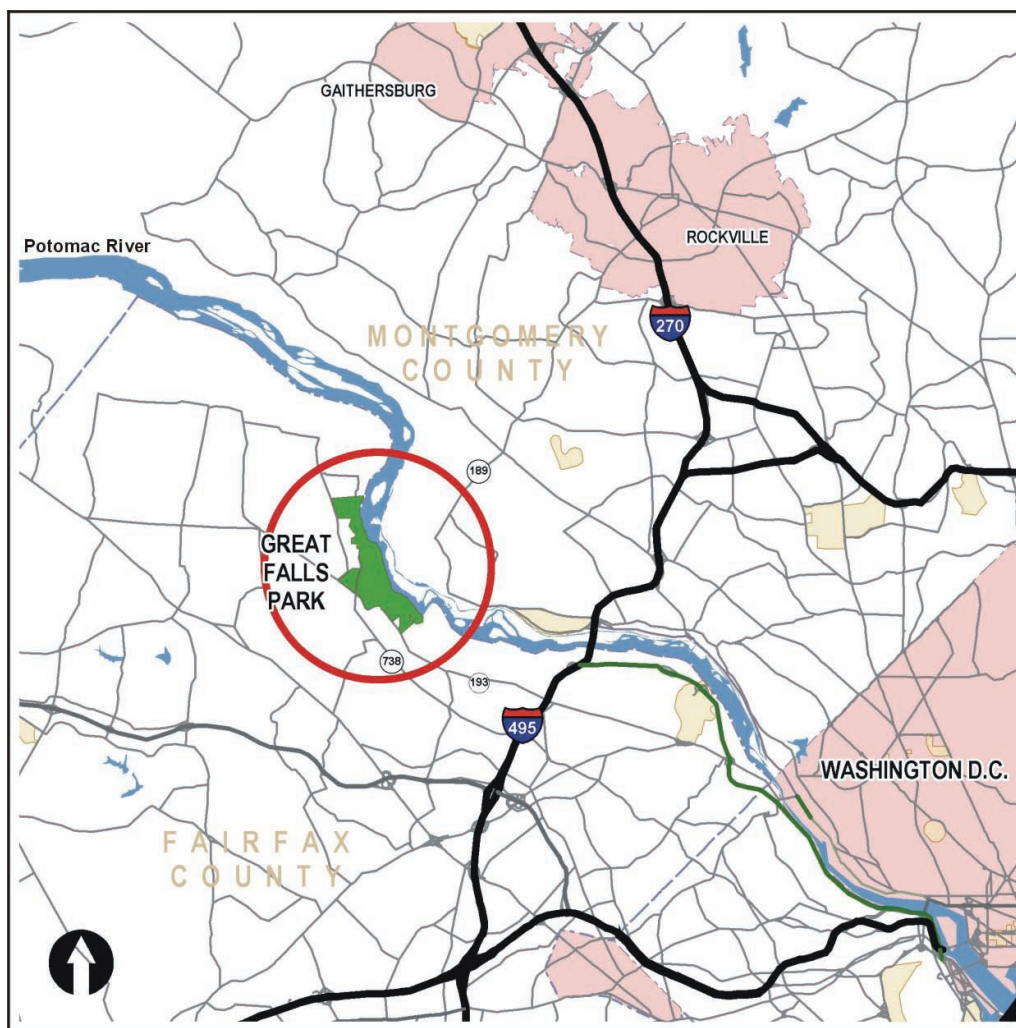
1.2 BRIEF DESCRIPTION OF THE PARK AND SURROUNDING AREA

Great Falls Park is located within the suburban residential area of McLean, Virginia in Fairfax County. It encompasses approximately 800 acres of primarily deciduous forest adjacent to the Potomac River. The park is located 14 miles upriver from Washington DC (see Figure 1.1: Regional Location Map). It is bounded on the east by the Potomac River. Much of the remainder of the park is surrounded by low density residential development. Route 193 (Georgetown Pike) defines the majority of the southwestern edge of the park, while Old Dominion Drive, River Bend Road, and private lands are located adjacent to the western and northern boundaries. Approximately 0.2 miles of the northern edge of the park is adjacent to the southern boundary of Fairfax County’s River Bend Park (see Figure 1.2: Aerial Map). The NPS administers the park as a unit of the George Washington Memorial Parkway (GWMP). The State of Maryland maintains jurisdiction over the Potomac River. Chesapeake and Ohio Canal National Historic Park (C&O Canal NHP), a separate unit of the NPS (that also includes a park called Great Falls Park), manages the land on the Maryland side of the river.

GWMP’s enabling legislation, the Capper Cramton Act of 1930, provided for the, “...protection and preservation of the natural scenery of the Gorge and the Great Falls of the Potomac, (and) the preservation of the historic Patowmack Canal ...”. Great Falls Park offers visitors spectacular views of the Potomac River cascading 76 feet over jagged rocks through a series of cataracts and then surging through the narrow Mather Gorge. A wide variety of outdoor recreational opportunities are available to the public in a setting of outstanding natural and cultural resources. The preserved ruins of the Patowmack Canal are the park’s primary cultural resource – a physical reminder of George Washington’s efforts to make the river a navigable waterway. Adjacent to the Canal remains are the ruins of an abandoned settlement, the town of Matildaville, built to support trade along the Canal. Established in 1790, the town never developed to its full potential and ceased to exist towards the middle of the 19th century. At the

height of development, it consisted of several dwellings, a springhouse, a forge, a gristmill and sawmill, several warehouses, an inn, and a number of company buildings.

The park's location also holds great geological value, and populations of rare plant species occupy this section of the Potomac River Gorge, which extends 15 miles along the Potomac River south to Theodore Roosevelt Island. The Gorge is one of the country's most biologically diverse areas and serves as a confluence for more than 200 rare plant species and biological communities. Local residents and tourists from around the world are attracted to the park to enjoy the views, and to partake in hiking, biking, horseback riding, rock climbing, kayaking, fishing, and picnicking. A visitor center at Great Falls Park provides exhibits of the park's natural and cultural resources, as well as orientation materials, a bookstore, and other visitor amenities such as restrooms and seasonal food service concessions.



Data Source: NPS, 2002.

Figure 1.1: Regional Location Map

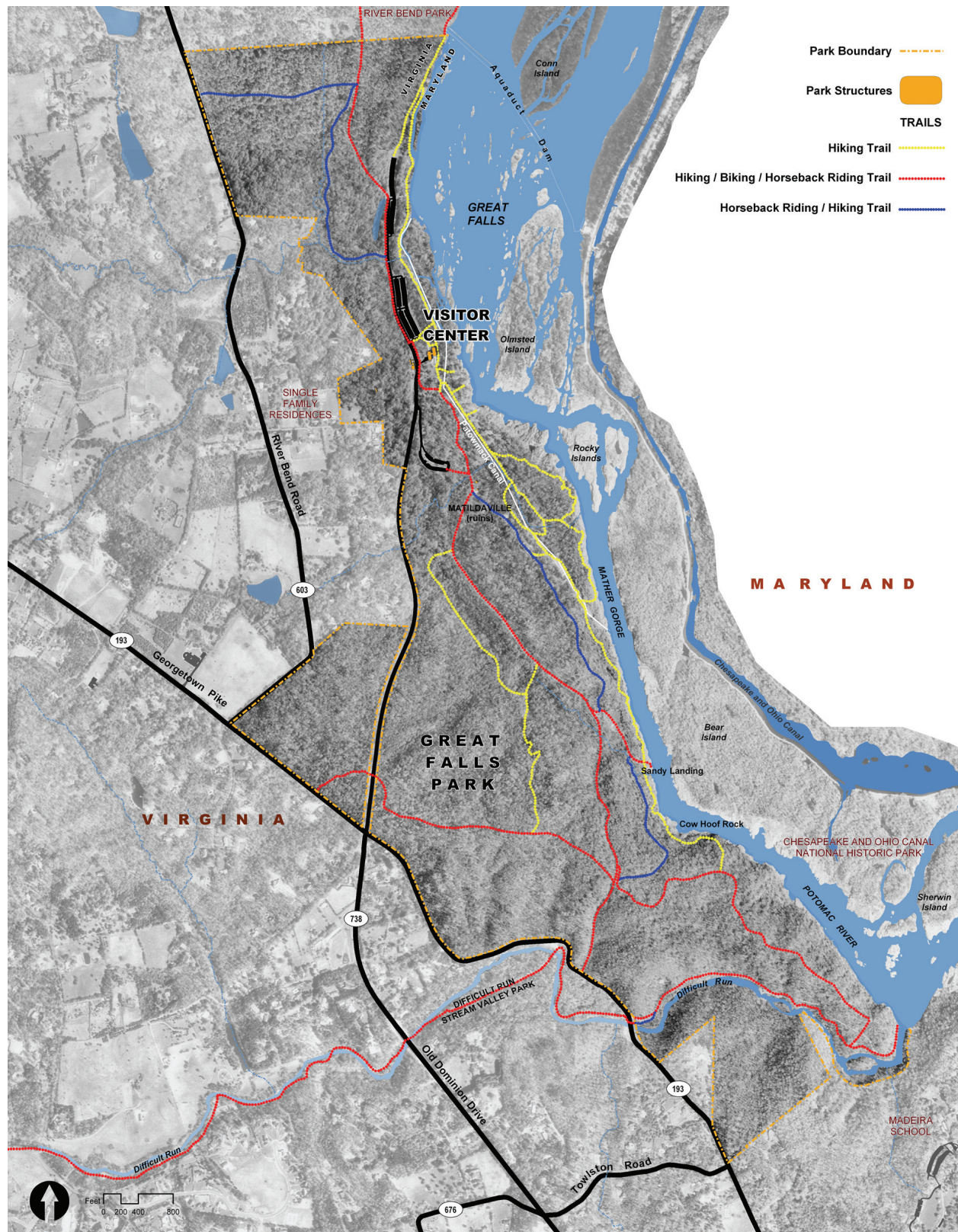


Figure 1.2: Aerial Map

1.3 PURPOSE OF AND NEED FOR ACTION

1.3.1 Purpose of the Plan

The purpose of this plan is to:

- Specify resource conditions and visitor experiences to be achieved in Great Falls Park;
- Provide a basic framework for decision-making regarding management of the park;
- Establish the direction and values that should be considered in planning to achieve the purposes defined in the established legislation of the park;
- Serve as the basis for shorter term management documents such as 5-year strategic plans, annual performance plans, and implementation plans;
- Devise and consider a range of future management alternatives; and
- Involve appropriate constituencies for advice on major decisions.

1.3.2 Need for the Plan

Great Falls Park is visited by nearly half a million people per year.¹ This visitation places demands on park personnel and facilities to protect resources and maintain a suitable visitor experience. Currently, management of the park is guided by existing laws, and NPS-wide policies and guidelines. A general management plan is needed to provide a broad direction for the future of the park. Such a plan would assist park managers in making purposeful decisions, based on a deliberate vision that is specific to the park.

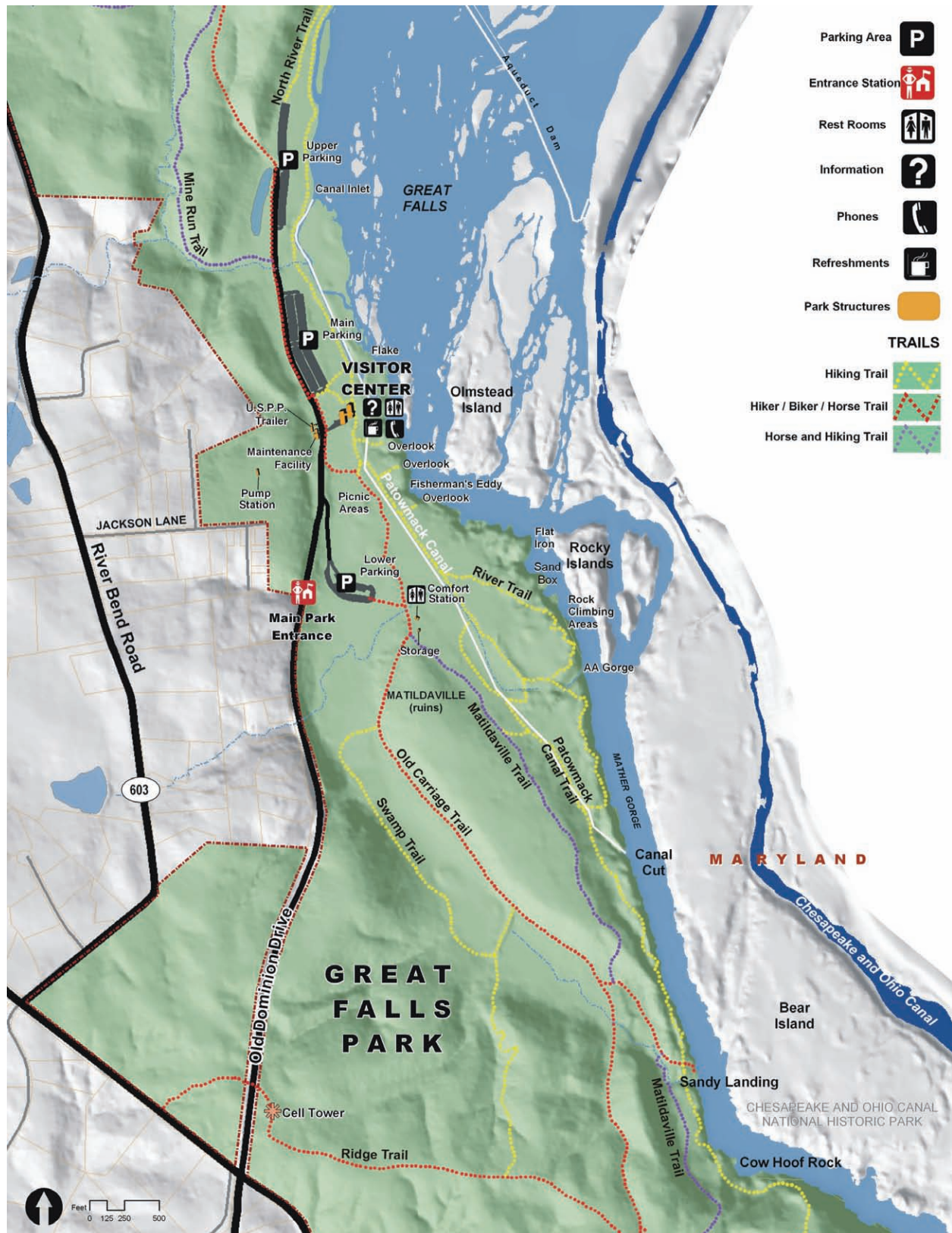
1.3.3 Issues and Concerns

A variety of issues and concerns were identified by the public, park staff, and other agencies during public scoping for this plan. Public scoping included distribution of Newsletter 1 in December 2002, a public meeting on January 28th, 2003, and several meetings with public agencies. The issues and concerns identified included access and circulation, natural and cultural resource management, visitor activities, park facilities, and visitor safety. The plan provides a framework or strategy for addressing these issues within the context of the park's purpose, significance, and mission.

Access and Circulation

- *Vehicular Access to the Park:* Old Dominion Drive provides the only public vehicular access into the park (see Figure 1.3: Park Facilities). During the peak visitation period (May to September), this road occasionally becomes congested from visitors seeking to access the park. This may be due to the parking lots reaching capacity. Emergency vehicles that use Old Dominion Drive as the primary access road into the park can potentially be delayed during these occasional congested periods, as can neighboring residents living along Old Dominion Drive.

¹ NPS Stats, National Park Service Public Use Statistics Office (<http://www2.nature.nps.gov/mpur/index.cfm>), 2004.



Data Source: NPS, 2002.

Figure 1.3: Park Facilities

- *Non-Vehicular Access and Circulation:* Within the park, there are a number of locations where visitors wander away from designated trails and create new ‘undesigned’ trails. A number of these undesigned trails traverse through sensitive cultural and natural resource areas (including the Patowmack Canal) and can cause damage to these resources.
- *Connections to Regional Trails:* Three trails are proposed in the area surrounding the park - the Cross County Trail (CCT), the Potomac Heritage National Scenic Trail (PHNST), and the Georgetown Pike Trail (GPT). These trails propose to link to Great Falls Park. The park has to decide on the type and location of these linkages, while maintaining consistency with the park’s visitor experience goals.

Natural and Cultural Resource Management

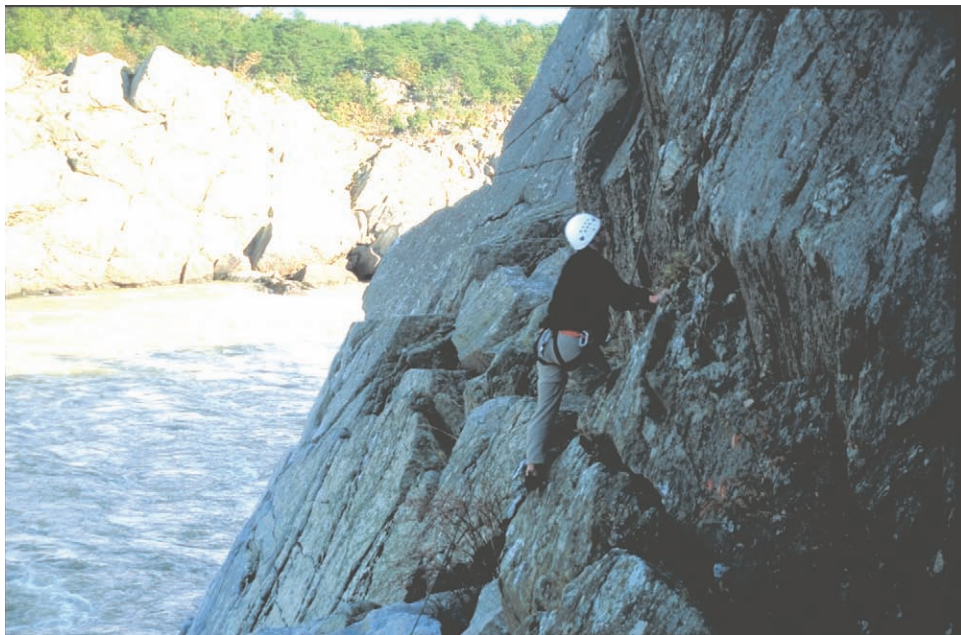
- *Conflict Between Natural and Cultural Resources:* The Great Falls Park section of the Patowmack Canal is a designated National Historic Landmark, as well as a National Historic Civil Engineering Landmark. Further, several features of the canal and Matildaville are either listed (or are eligible for listing) on the National Register of Historic Places. There are a number of instances in the park where existing vegetation (such as the roots of large, mature trees that grow on the walls of the Patowmack Canal) can significantly damage the structural integrity of the park’s cultural resources. The park has a mandate to preserve both natural and cultural resources that present a management challenge in instances where one conflicts with the other.

Visitor Activities

- *Impact of Visitor Activity on Sensitive Natural and Cultural Resources:* To prevent the loss of threatened and endangered species, the park typically refrains from identifying the type and locations of such resources. This results in visitors often unknowingly damaging the resources as they move away from designated trails. Damage is visible in the vicinity of known resources including the Patowmack Canal, and along the rock ledges and cliff faces of the Potomac Gorge. Growing demands of some of the existing uses, such as rock climbing, have the potential to amplify these impacts.
- *Conflict Between Trail Users:* Park staff often finds bicyclists or horseback riders on trails that are designated for pedestrian use only, causing concern for pedestrian safety, as well as potential damage to the pedestrian trails. Inadequate trail markings and signage contribute to this concern.



Vegetation impact on Matildaville Ruins



Rock climbing along the Potomac Gorge

Park Facilities

- *Visual Impacts of the Maintenance Facility:* The existing maintenance facility is located immediately beyond the entrance station, and provides one of the first images of the park. This facility is unattractive and adversely impacts the visual environment. Further, the facility is an outdated and structurally deteriorated building.
- *Inadequate Restrooms:* Existing comfort facilities, located in the visitor center and to the south of the southern parking lot, are inadequate to handle the amount of visitors accessing the park during peak periods. This need is compounded during special events. These facilities also lack handicapped-accessible restrooms.
- *Space Constraints for Park Personnel:* The park staff currently has offices within the visitor center. These spaces are inadequate for the current staff size, staff functions, and storage needs. Also, U.S. Park Police is currently housed in a trailer facility that does not provide adequate space to safely detain people suspected of criminal activity; this arrangement is in need of general improvements.

Visitor Safety

- *Accessing the River:* The park currently allows a variety of user groups, including non-motorized boat users and fishermen, to access the Potomac River from Great Falls Park. There have been a number of instances where visitors have suffered serious injuries, or death, while taking part in these and other activities along the river.

1.3.4 Decision Points

The major resource conditions and visitor experiences issues that need to be addressed in this plan were summarized through the following questions:

1. How should natural and cultural resources be managed to optimize the preservation of both?
2. What are the most appropriate levels of service and locations for visitor interpretation and education in the park?
3. What are the appropriate levels and locations of recreational activities such as picnicking, kayaking, dog walking, biking, horseback riding, climbing, and boating in the park?
4. How should trails be managed with regard to use, connections to trails outside the park, and locations?
5. How should traffic and associated elements (parking spaces, time limits, etc.) be managed?
6. What are the most appropriate locations to support administration and operation functions with respect to minimizing resource disturbance?



Visitor Center with staff offices and food service concession at the lower level, and interpretation exhibits and an auditorium at the second level



Visitors along the river's edge

1.4 GUIDANCE FOR THE PLANNING EFFORT

The purpose, significance, and mission of the park were used to develop the alternatives for this plan. Also guiding the development of these alternatives were the park's establishing legislation, NPS policies, legal requirements, public comments, and analysis of resource values.

1.4.1 *Park Purpose*

Great Falls Park was established as a site within the GWMP to preserve and protect the natural scenery of the Potomac River Gorge, the Great Falls of the Potomac, and the historic Patowmack Canal for future generations. This upland piedmont forest is the focal point of the park's human history, from the American Indians who utilized the river and woodland resources, through the efforts of George Washington to construct a canal that circumvented the Falls in order to trade with the west, to the preservation and recreational activities of recent generations. The park's notable features provide visitors a chance to recreate in a superlative green space within the metropolitan Washington DC area, and opportunities to gain an understanding of the natural and cultural resources, and the social and political values of the American people.

1.4.2 *Park's Significance*

Great Falls Park's significance is attributed to the following factors:

- Great Falls Park contributes to protecting and preserving the spectacular scenic views of the Great Falls on the Potomac River, the Potomac River Gorge, and the Potomac Palisades.
- The park contains portions of Patowmack Canal, one of the first canal systems built (1785-1802) and operated (1802-1828) in the country, as well as the ruins of the town of Matildaville that was built to support trade along the Canal. The Patowmack Canal is often referred to as George Washington's "Dream Canal." This National Historic Landmark was one of the first river navigational systems that supported trade with the Ohio River Valley.
- Despite its location in an expanding metropolitan area, the Potomac Gorge is one of the most noteworthy natural areas in the National Park System. It extends 15 miles along the Potomac River, from a location above Great Falls, south to Theodore Roosevelt Island. Due to the unusual hydrogeology, the Gorge is one of the country's most biologically diverse areas that serves as a confluence for more than 200 rare plant species and biological communities.
- The park is within the Potomac River watershed, which covers approximately 14,670 square miles in Virginia, Maryland, West Virginia, Pennsylvania, and the District of Columbia. The Potomac River is the second largest contributor to the Chesapeake Bay.
- Great Falls Park protects American Indian artifacts in their original locations.
- Great Falls Park offers a diversity of resource-based recreational experiences in proximity to the Nation's capital. Activities range from picnicking, bird watching, photography, guided ranger programs, hiking, jogging, horseback riding, and bicycling through scenic wooded trails, rock climbing along the Gorge, and white water activities, as well as fishing on the river.



The view of Great Falls of the Potomac River is one of the main reasons visitors come to the park



Portion of the historic Patowmack Canal

1.4.3 *Mission Goals*

This section defines, in broad terms, the ideals that the NPS is striving to attain, as they are applicable to Great Falls Park.

The goals for Great Falls Park are directly linked to the NPS service-wide mission goals contained in the NPS Strategic Plan (NPS 2000). They are written as desired outcomes in keeping with the Government Performance and Results Act. The park's mission goals are as follows:

- The natural and cultural resources associated values of Great Falls Park are protected, preserved, and maintained in good condition and managed within their broader ecosystem or cultural context (Service Mission Goal Ia).
- Visitors safely enjoy and are satisfied with the availability, accessibility, diversity, and quality of park facilities, services, and appropriate recreational opportunities (Service Mission Goal IIa).
- Park visitors and the general public understand and appreciate the preservation of the park and its resources for this and future generations (Service Mission Goals IIIa).
- Through partnerships with other federal, state, and local agencies and non-profit organizations, Great Falls Park contributes to a nationwide system of parks, open spaces, rivers, and trails and provides educational, recreational, and conservation benefits for the American people (Service Mission Goal IIIb).
- The NPS uses current management practices, systems, and technologies to accomplish its mission at Great Falls Park (Service Mission Goal IVa).
- The NPS increases its managerial capabilities and support from other agencies, organizations and individuals (Service Mission Goal IVb).

1.4.4 *Special Mandates*

Similar to all other NPS units, management of Great Falls Park is guided by numerous congressional acts and executive orders, in addition to the enabling legislation (Capper-Cramton Act). Some of these laws and executive orders are primarily focused on units of the National Park System. These include the 1916 Organic Act creating the NPS, the General Authorities Act of 1970, and the Act of March 27, 1978 relating to the management of the National Park System. Others have a broader application, such as the Endangered Species Act of 1973, the National Historic Preservation Act of 1966 as amended, and Executive Order 11990 addressing the protection of wetlands.

Mandates that either specifically address the park, including the establishing legislation, or are applicable to national parks in the region include the following:

- Public Law 69-158 (June 6, 1924) provided for a comprehensive development of the park and playground system of the Nation's capital. The law constituted the National Capital Park Commission 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."
- The Capper-Cramton Act of May 29, 1930, as amended, provided for the acquisition, establishment, and development of the George Washington Memorial Parkway (GWMP) "to include the shores of the Potomac, and adjacent lands from Mount Vernon to a point above Great Falls on the Virginia side except within the City of Alexandria ... 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 ...". The Act also provided 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 Nation's capital (in specific fulfillment of the 1924 National Capital Park Commission Act).
- Public Law 89-255 (October 10, 1965) authorized the Secretary of the Interior to acquire 783.6 acres of land in the Great Falls area of Virginia from the Potomac Electric Power Company (PEPCO) in exchange for 391 acres of NPS land in Blue Ponds in Prince George's County, Maryland, and a sum not to exceed \$1,000,000 from appropriated funds to make up the difference in value of the two properties. The law also provided that the Secretary could accept title to approximately 16 acres of land owned by the Fairfax County Park Authority in Virginia.
- National Parks and Recreation Act of 1978 (NPRA, 16 USC Sec 1, note 92 stat 3467) which requires the National Park Service to prepare and revise general management plans in a timely manner for each unit.

1.4.5 Servicewide Laws and Policies

The NPS has also established policies for all units under its stewardship. These are identified and explained in the NPS guidance manual entitled *Management Policies* (2006 edition). These policies are derived from existing laws, proclamations, executive orders, and regulations that govern NPS resources. Compliance with management policies are further supplemented by specific Director's Orders (DO), which serve as interim updates or amendments, as well as serve as a vehicle to clarify the management policies. Compliance with these management policies are summarized in Table 1.1 – National Park Management Policies and Conditions to be Achieved:

Table 1.1 – National Park Service Management Policies and Conditions to be Achieved

TOPIC	CONDITIONS TO BE ACHIEVED – REQUIRED BY CURRENT LAWS AND POLICIES
Natural Resources	<p><i>Preserve the natural resources, processes, systems, and values of units of the National Park System in an unimpaired condition, to perpetuate their inherent integrity and to provide present and future generations with the opportunity to enjoy and learn about them.</i></p> <p><i>Identify natural resources, processes, systems, and values found in parks to include: physical resources such as water, air, soils, topographic features, geologic features, etc; physical processes such as weather and erosion; biological resources such as native plants, animals and communities; biological processes such as photosynthesis, succession and evolution; ecosystems; and highly valued associated characteristics such as scenic views.</i></p> <p><i>Manage exotic species that could potentially have a substantial adverse impact on park resources and whenever possible intervene to protect and increase native species.</i></p>
Cultural Resources	<i>Preserve and foster appreciation of the cultural resources in its custody, and demonstrate respect for the peoples traditionally associated with those resources, through appropriate programs or research, planning, and stewardship.</i>
Interpretation and Education	<i>Instill in park visitors an understanding, appreciation, and enjoyment of the significance of parks and their resources. Interpretive and educational programs encourage the development of a personal stewardship ethic, and broaden public support for preserving park resources by forging a connection between park resources, visitors, the community, and park management.</i>
Use of the Park	<i>Promote and regulate appropriate use of the parks, and provide the services necessary to meet the basic needs of park visitors and to achieve each park's mission....taken together, the 1916 Organic Act and the 1970 General Authorities Act, as amended, impose on NPS managers a strict mandate to protect park resources and values, and a responsibility to actively manage all park uses and, when necessary, to regulate their amount, kind, time, and place.</i>
Park Facilities	<i>Provide visitor and administrative facilities that are necessary, appropriate, and consistent with the conservation of park resources and values. Facilities will be harmonious with park resources, compatible with natural processes, aesthetically pleasing, functional, energy- and water- efficient, cost-effective, universally designed, and as welcoming as possible to all segments of the population. Park facilities and operations demonstrate environmental leadership by incorporating sustainable practices to the maximum extent practicable in planning, design, siting, construction, and maintenance.</i>
Commercial Visitor Services	<i>Provide, through the use of concession contracts, commercial visitor services within parks that are necessary and appropriate for visitor use and enjoyment. Concession operations protect park resources and values and demonstrate sound environmental management and stewardship.</i>
Air Quality	<i>Perpetuate the best possible air quality in parks to (1) preserve natural resources and systems; (2) preserve cultural resources; and (3) sustain visitor enjoyment, human health, and scenic vistas.</i>
Soundscape	<i>Preserve, to the greatest extent possible, the natural soundscapes of parks. Natural soundscapes exist in the absence of human-caused sound and are the aggregate of all the natural sounds that occur in parks, together with the physical capacity for transmitting natural sounds.</i>

The following Director's Orders (DO) provide additional guidance on the management of NPS resources:

- DO-15 (Wireless Communication)
- DO-18 (Wildland Fire Management)
- DO-21 (Donations & Fundraising)
- DO-22 (Fee Collection)
- DO-28 (Cultural Resource Management)
- DO-42 (Accessibility for Park Visitors)
- DO-50C (Visitor Safety)
- DO-52C (Park Signage)
- DO-77 (Natural Resource Protection)
- DO-77-1 (Wetland Protection)
- DO-77-2 (Floodplain Management)
- DO-77-8 (Endangered Species)
- DO-80 (Facility Management Program)
- DO-81 (Maintenance Management Program)
- DO-87B (Alternative Transportation Systems)
- DO-87D (Non-NPS Roads)

1.5 RESOURCES POTENTIALLY AT RISK

Specific resources and values, called impact topics, were used to focus the planning process and the assessment of potential consequences of the alternatives. The criteria used to identify these impact topics include the following:

- Resources cited in the establishing legislation for the park;
- Resources critical to maintaining the significance and character of the park;
- Resources recognized as important by laws or regulations; and
- Values of concern to the public during scoping for the plan.

The following impact topics were identified based on these four criteria (above) and are assessed in Chapters 3 and 4 of this document:

- *Land use including socio-economic conditions:* the park is proximate to established residential areas as well as other parks in the area. During scoping, the influence of the park's decisions on surrounding land uses was identified as an important issue.
- *Cultural resources including archaeological, historical, and visual resources:* the park possesses cultural resources that are considered exceptional and are protected by various legislative, executive, and NPS mandates. These resources include the Patowmack Canal (that is identified for preservation in the park's establishing legislation), the associated cultural landscape including Matildaville and other structural ruins from the period of the canal's construction, and petroglyph sites believed to be attributable to prehistoric American Indians.
- *Natural environment including geophysical resources, water resources, biological resources, air quality, and noise:* the park possesses valuable natural resources that are more pronounced given its location in an urbanized metropolitan area. Some of these resources, including a section of the Potomac Gorge, the presence of rare plants, animals, and biological communities, and the park's location within the Potomac River watershed, are critical to maintaining the significance and character of the park.

- *Visitor Experience:* the park offers a variety of recreational experiences that were determined to be of great value during the public participation process. These include the spectacular scenic view of the Great Falls that contributes to the significance and character of the park.
- *Transportation resources including traffic and parking conditions:* Old Dominion Drive is the only vehicular access roadway to the park. During scoping, residents from adjacent neighborhoods identified concerns with establishing additional access ways to the park through secondary neighborhood roads.
- *Site utilities including water, sewer, and electricity:* the park contains several structures served by existing utilities that have the potential to be impacted by proposed improvements.

1.6 OTHER PROJECTS IN THE AREA

This section identifies other projects or actions in the area that could have an additive or cumulative impact on environmental resources, when considered together with the proposed alternatives in this plan. The cumulative impacts of these are discussed in the environmental consequences section in Chapter 4 of this document. These projects are as follows:

- *Cross County Trail (CCT)*– the existing Cross County Trail, which runs along Difficult Run in the east-west direction, connects the park to areas to the west. The Fairfax County Park Authority has undertaken efforts to improve and extend this trail for a distance of 40 miles between the Potomac and Occoquan Rivers.
- *Potomac Heritage National Scenic Trail (PHNST)*– Potomac Heritage National Scenic Trail is a proposed national trail that would extend through Virginia, Washington D.C., Maryland, and Pennsylvania. Preliminary studies identify the route of the trail along Georgetown Pike as it approaches the park from the south. PHNST is then anticipated to use existing trails within the park to connect to Riverbend Park to the north.
- *Georgetown Pike Trail (GPT)*– the proposed Georgetown Pike Trail is planned along Georgetown Pike from the Great Falls Village Center to the park.