

Volume 1  
Final  
General Management Plan  
Environmental Impact Statement

**ROCK CREEK PARK  
AND THE  
ROCK CREEK AND  
POTOMAC PARKWAY**

**Washington, D.C.**

## ALTERNATIVES

*This section first describes each management prescription developed for Rock Creek Park and the Rock Creek and Potomac Parkway. It then describes how the alternatives were formulated and provides descriptions of each alternative, using zoning to apply management concepts to park resources.*

A description of how the alternatives were created based on scoping is provided in the section entitled “Formulation of Alternatives.” Following their general definition, the development of the alternatives was a two-step process.

The National Park Service identified management prescriptions that potentially were applicable to the park and parkway. Each management prescription was defined by desired visitor experiences and resource conditions. This helped establish the kinds of activities or facilities within each prescription that would achieve those targeted conditions.

The management prescriptions were then mapped to specific areas of the park to create the four alternatives evaluated in this final general management plan.

Each alternative is a combination of several management prescriptions. None of the alternatives uses all of the prescriptions, and the locations where the prescriptions would be applied vary among alternatives.

Each of the alternatives is presented as a concept that contains the goals of the alternative, followed by the management prescriptions that would be used to implement those goals. All of the alternatives also include an adaptive management component. This means that if the actions outlined in an alternative are not completely successful in meeting the stated goals, the National Park Service will identify and implement other approaches until the goals are achieved.

## MANAGEMENT PRESCRIPTIONS

*This section defines all of the management prescriptions that could be applied to Rock Creek Park and the Rock Creek and Potomac Parkway under any of the alternatives. The management prescriptions define the desired resource conditions and visitor experiences, including the appropriate kinds and levels of management, use, and development.*

A management prescription is an approach for administering or treating the resources or uses of a specified area that is based on desired outcomes. Management prescriptions include target goals or objectives for one or more resources and/or visitor experiences that are present within the prescription area.

At some NPS units, a single management prescription will be applied to an entire park. However, all of the alternatives for Rock Creek Park and the Rock Creek and Potomac Parkway consist of multiple zones with different management prescriptions. Together, all of the management prescriptions within an alternative meet all of the goals for the park and parkway.

Different physical, biological, and social conditions are emphasized in each zone. The factors that define each management prescription are the

desired natural and cultural resource conditions

desired visitor experience

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 of the management prescriptions conform to all of the park-specific purpose, significance, and mission goals, and the servicewide mandates and policies, that were described earlier in this final general management plan. For example an archeological site will be protected, regardless of whether it occurs in the forest zone, cultural resource zone, or valley floor automobile access zone. However, the *use* of that site for interpretive or educational purposes could vary, depending on the management prescription to which its vicinity was assigned.

The 12 management prescriptions identified as potentially applicable are described below and summarized in table 2. Consistent with the high level of concern expressed in scoping about the use of roadways, seven of the prescriptions apply to roads. The others emphasize desired conditions and visitor experiences for forests, cultural resources, recreation areas, visitor facilities, and administration and operations areas.

## **FOREST ZONE**

Largely undisturbed forests characterize this zone which, in some places, includes the valley bottom and Rock Creek channel. Forests in the valley, on the slopes, and on ridge tops provide opportunities for solitude, birding and other nature study, and wilderness-like scenery. This is the only zone where a visitor expects a low to moderate number of encounters with other park visitors.

Impacts on natural resources from human activities are avoided or largely mitigated. Cultural resources are managed compatibly with the natural environment.

Unpaved trails provide for hiking, horseback riding, and jogging. A few paved trails provide for nonmotorized recreation activities such as bicycling and in-line skating. Following substantial rainfall events, canoeing and kayaking occur on Rock Creek.

### **Desired Visitor Experience**

In the interior of this zone, visitors are immersed in a natural landscape. The zone provides opportunities for exploration and contemplation of the forest, and respite from the sounds and views of the city.

TABLE 2: SUMMARY OF MANAGEMENT PRESCRIPTIONS

Management Prescription	Description	Visitor Experience and Resource Condition	Appropriate Activities and Facilities
Forest Zone	Natural landscape of forests on the valley slopes and ridge tops	Provides opportunities for exploration and contemplation of the forest Low to moderate encounter frequency with other visitors Mostly undisrupted natural processes	Activities: hiking, birding and other nature study, and canoeing and kayaking Facilities: mostly undeveloped, other than trails
Cultural Resource Zone	Contains the key cultural resources related to the significance and purposes of the park	Provides a sense of history High encounter frequency with other visitors and park personnel Protects the integrity and ambiance of cultural features Documents and interprets resources Manages natural resources compatibly with cultural resource	Activities and facilities are compatible with cultural resource protection Activities: education and interpretation, adaptive uses Facilities: cultural resources, which could be adaptively used
Valley Floor Automobile Access Zone	Roadways and mowed areas along the Rock Creek and Piney Branch valley floors Provides scenic views of the creek and forested valley	Provides motorized and nonmotorized access to the valley and informal recreational areas Moderate to very high encounter frequency with other visitors Heavy urban traffic on weekdays during rush hours On weekends and holidays, motorized traffic is excluded in three sections and nonmotorized recreation occurs Landscape is largely forested, but shoulders and grassy bays are maintained by mowing	Activities: motorized and nonmotorized travel, nonrecreational traffic through or across the valley, and informal recreation such as picnicking, birding and other nature study, canoeing and kayaking, bicycling, and hiking Facilities: rustic picnic areas, paved trails, roadways, and traffic control devices
Valley Floor Controlled Automobile Access Zone	Similar to Valley Floor Automobile Access Zone but with reduced traffic volumes and speeds	Same as Valley Floor Automobile Access Zone	Same as Valley Floor Automobile Access Zone

**TABLE 2: SUMMARY OF MANAGEMENT PRESCRIPTIONS (Continued)**

<b>Management Prescription</b>	<b>Description</b>	<b>Visitor Experience and Resource Condition</b>	<b>Appropriate Activities and Facilities</b>
Valley Floor Nonmotorized Recreation Zone	<p>Excludes motorized traffic</p> <p>Includes Beach Drive and adjacent mowed areas</p> <p>Provides scenic views of the creek and forested valley</p>	<p>Visitors enjoy natural sights, sounds, and smells, uninterrupted by motor vehicle traffic</p> <p>Relaxed and unhurried experience</p> <p>Moderate to very high encounter frequency with other visitors</p> <p>Landscape is largely forested, but shoulders and grassy bays are maintained by mowing</p>	<p>Activities: nonmotorized recreation such as walking, bicycling, in-line skating, birding and other nature study, canoeing and kayaking, and picnicking</p> <p>Facilities: paved trails or former road bed, rustic picnic areas, and interpretive waysides</p>
Valley Floor Mid-Weekday Recreation Zone	<p>Excludes motorized traffic on weekdays between 9:30 A.M. and 3:30 P.M.</p> <p>At all other times, is similar to the Valley Floor Controlled Automobile Access Zone</p>	<p>During mid-weekday closures, same as the Valley Floor Nonmotorized Recreation Zone</p> <p>At all other times, same as the Valley Floor Controlled Automobile Access Zone</p>	<p>Same as Valley Floor Automobile Access Zone</p>
Rock Creek and Potomac Parkway Zone	<p>Highly developed parkway that provides a scenic driving experience</p> <p>Mix of grassy fields and woodlands with limited city views</p>	<p>Aesthetically pleasing landscape provides a sense of decompression and relaxation</p> <p>High to very high encounter frequency with other visitors</p> <p>Heavy traffic is accepted</p> <p>Natural and historic features are maintained, including parkway design</p>	<p>Activities: motorized and nonmotorized recreation such as driving, walking, bicycling, canoeing and kayaking, and in-line skating</p> <p>Facilities: roadways and paved trails</p>
Park Road Zone	<p>Park roads, including associated shoulders, pullouts, parking areas, paved trails, historic bridges, and scenic viewpoints</p>	<p>Provides motorized and nonmotorized park access</p> <p>High to very high encounter frequency with other visitors</p> <p>Unhurried drive or bicycle ride, despite heavy urban traffic at times</p> <p>Surrounding landscape is forested, but shoulders are maintained by mowing</p>	<p>Activities: motorized and nonmotorized travel, nonrecreational traffic across the park</p> <p>Facilities: roadways, paved trails, and traffic control devices</p>

**TABLE 2: SUMMARY OF MANAGEMENT PRESCRIPTIONS (Continued)**

Management Prescription	Description	Visitor Experience and Resource Condition	Appropriate Activities and Facilities
Visitor Facility Zone	Developed zone defined by facilities for information, interpretation, education, and other visitor services	<p>Receive introduction to park's natural and cultural history</p> <p>Obtain information on recreation opportunities</p> <p>High encounter frequency with other visitors and park personnel</p> <p>Substantial maintenance and intervention to accommodate concentrated visitor use</p>	<p>Activities: information, interpretation, education, and other visitor services</p> <p>Facilities: buildings and waysides to support information and interpretive activities; historic structures could be adaptively used</p>
Urban Recreation Zone	<p>Developed recreation facilities such as picnic areas, community gardens, stables, sport fields, and golf course</p> <p>Background setting is rustic and park-like</p>	<p>Developed facilities for recreation</p> <p>High levels of intervention and maintenance to support concentrated visitor use</p> <p>Very high encounter frequency with other visitors</p>	<p>Activities: gardening, picnicking, tennis, performances, golf, horseback riding, and informal sports</p> <p>Facilities: developed recreation features and structures</p>
Administration/Operations Zone	Includes structures and grounds used for park administration and operations	<p>Most visitors are unaware of the facilities</p> <p>When necessary, visitors are able to locate facilities easily and find them user friendly</p> <p>Best management practices protect resources, prevent pollution, and reduce noise and visual impacts</p>	<p>Activities: park administration and operation, birding and other nature study,</p> <p>Facilities: offices and maintenance yards; historic structures could be adaptively used</p>
Urban Transit Zone	Includes non-NPS roads within the park and parkway boundaries that provide access across the park and connections with the urban street grid	<p>Visitors experience the sights and sounds of urban traffic</p> <p>Very high encounter frequency with other visitors</p>	<p>Activities: urban transportation; where possible, links the park to local trails for nonmotorized recreation</p> <p>Facilities: roadways and traffic control devices</p>

Paved trails within the zone support active recreation and also provide opportunities for visitors in wheelchairs or with young children in strollers to experience a natural setting. On paved trails in the forest zone, the chance of a visitor encountering someone else are moderate to high on busy weekends. Away from paved trails, the encounter rate is low to moderate.

### **Desired Resource Conditions**

Natural processes function in this zone with relatively little interference except for restorative actions to protect or promote native biota, mitigate pollution, and control erosion. Natural and cultural resources within the zone are documented and understood through nondisruptive research. Archeological, historic, and ethnographic resources are managed compatibly with the natural environment, while recognizing that some disturbance to the forest currently occurs and will continue to occur in these areas.

Some open spaces are maintained within the Forest Zone using processes such as mowing and brush cutting. These include, but are not limited to, picnic groves and meadows like Military Field. Long-standing vegetation management practices involving thinning or limbing-up of trees are used along the stream banks to maintain glimpses of the water and occasional views up or down the creek. Some historic clearings may be restored within the Forest Zone, potentially including the vista at Pulpit Rock, specific views of the boulder dam at Peirce Mill, and the historic entry drive at Linnaean Hill. However, areas of modified vegetation are limited in size, have a well-defined purpose, and could be reversed by ending the management practice and allowing natural vegetation succession to occur.

### **Appropriate Kinds of Activities or Facilities**

A strong emphasis is placed on natural and rustic scenic and aesthetic quality. Structures or activities that would disrupt such a setting are not permitted.

This zone is mostly undeveloped. Park facilities are limited to bridle paths, foot trails, limited paved recreation trails, and a few picnic sites to assist visitors in enjoying the forest. Nondisruptive environmental and cultural research and monitoring, consistent with the park purpose, are permitted.

## **CULTURAL RESOURCE ZONE**

The cultural resource zone contains lands that are managed primarily for the preservation, protection, and interpretation of their cultural resource values. Typically, these lands include key cultural resources related to the significance and purposes of the park and parkway.

Not all lands that contain valuable cultural resources would be assigned to the cultural resource zone. For example, the park's entire circulation network of historic roads and trails contributes to the listing of the Rock Creek Historic District in the National Register of Historic Places. However, these roads also fulfill transportation functions that justify a different management prescription. Similarly, a historic building that houses administrative offices would be assigned an administrative rather than a cultural resource management prescription.

### **Desired Visitor Experience**

Visitors are offered the opportunity to learn about and contemplate the prehistoric and historic resources in the park and obtain a sense of past human occupation and use of the park area. The resource management objectives for each facility are based on site-specific visitor activities and encounter rates. Visitors expect a high number of encounters with other park visitors, and with NPS personnel.

### **Desired Resource Conditions**

Archeological and historic sites, buildings, structures, circulation networks, features, and landscapes are protected and preserved. Cultural resources in the zone are documented and interpreted.

Cultural landscapes in this zone generally are managed to reflect their historic design. Nonnative plant species are used sparingly, and only in a manner that is consistent with their historic use (see *Management Policies 2001*, NPS 2000a).

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

### **Appropriate Kinds of Activities or Facilities**

Activities are limited to those compatible with maintaining the integrity of the featured cultural resources. Historic buildings or structures could be adaptively used for various park purposes subject to NPS policies for protection, preservation, and utilization of cultural resources.

## **VALLEY FLOOR AUTOMOBILE ACCESS ZONE**

This zone lies along the Rock Creek and Piney Branch valley floors. It includes the roadways and adjacent mowed areas that are maintained for recreation and aesthetics and, in some places, includes the Rock Creek channel. The zone features scenic views of the creek and the forested valley. Grassy areas and rustic facilities are maintained for picnicking and other informal recreation.

On weekdays, the zone is managed for pleasure driving and for urban traffic, which at times is very heavy. On weekends and holidays, motorized traffic is excluded from three sections of this zone, and it provides nonmotorized recreation such as walking, bicycling, birding and other nature study, and in-line skating. Following substantial rainfall events, canoeing and kayaking occur on Rock Creek.

### **Desired Visitor Experience**

Visitors have convenient access to the valley and to informal recreational areas along Rock Creek and Piney Branch. Visitors enjoy being in a picturesque landscape of fields and forests. Informal recreation in the corridor contributes to social interaction. The frequency of visitor encounters with other visitors is moderate to very high, although secluded spots on the creek offer a chance for solitude.



### **Desired Resource Conditions**

The landscape beside the road and creek is modified from natural conditions. Shoulders and established grassy bays along Beach Drive are maintained by mowing. Forested areas within this zone are managed in a natural condition, similar to that in the Forest Zone. Wetlands and seeps are kept in a natural condition. Historic bridges and picnic facilities are maintained for heavy daily use.

### **Appropriate Kinds of Activities or Facilities**

During weekdays, motorized and nonmotorized travel are accommodated. This includes nonrecreational traffic through and across the valley, which results in heavy traffic, particularly during rush hours. Traffic control devices, such as signal lights, are used judiciously to control volumes and speeds with as little detraction from the rustic setting as practical. Speed limits and other traffic regulations are enforced. During weekends and holidays, three sections of roadways are closed to motorized traffic.

Informal recreation such as picnicking, casual ball games, and contemplation are supported, for both individuals and groups. Facilities include rustic-style picnic tables, grills, and shelters; parking and staging areas; comfort stations; and interpretive waysides and information boards.

## **VALLEY FLOOR CONTROLLED AUTOMOBILE ACCESS ZONE**

The configuration of and desired experiences and resource conditions in this zone are similar to the Valley Floor Automobile Access Zone described above. However, different kinds of activities and facilities are used to control the level of traffic in the park. The management goals are to slow traffic to posted speed limits and to reduce the volume of nonrecreational traffic in the valley.

### **Desired Visitor Experience**

The desired visitor experience is the same as the Valley Floor Automobile Access Zone.

### **Desired Resource Conditions**

The desired resource conditions are the same as the Valley Floor Automobile Access Zone.

### **Appropriate Kinds of Activities or Facilities**

Motorized and nonmotorized travel are accommodated, similar to the Valley Floor Automobile Access Zone. However, nonrecreational traffic through or across the valley is more rigorously controlled. Traffic-calming measures are used judiciously to control volumes and speeds with as little detraction from the rustic setting as practical. Speed limits and other traffic regulations are enforced. Even with controls, traffic is heavy at times.

Other activities and facilities are similar to those described in the Valley Floor Automobile Access Zone.

## **VALLEY FLOOR NONMOTORIZED RECREATION ZONE**

Motorized traffic is excluded from this zone, which includes former roads, adjacent mowed areas, and parts of the Rock Creek channel. The zone features scenic views of the creek and the forested valley. Grassy areas and rustic facilities support picnicking and other informal recreation. The zone provides nonmotorized recreation such as walking, bicycling, birding and other nature study, canoeing and kayaking, and in-line skating.

### **Desired Visitor Experience**

The zone provides visitors with opportunities to enjoy the natural sights, sounds, and smells of the creek valley, uninterrupted by motor vehicle traffic. Visitors enjoy being in a scenic landscape of fields and forests in contrast to the surrounding city. The experience is relaxed and unhurried. Informal recreation in the corridor contributes to social interaction. The frequency of visitor encounters with other visitors is moderate to very high, although secluded spots on the creek offer a chance for solitude.

### **Desired Resource Conditions**

Shoulders and some established grassy bays along Beach Drive are maintained by mowing for aesthetics and informal recreation. Some currently mowed areas are allowed to succeed to meadow and forest. Forested areas within this zone are managed in a natural condition, similar to that in the Forest Zone. Wetlands and seeps are kept in a natural condition. Historic bridges and picnic facilities are maintained.

### **Appropriate Kinds of Activities or Facilities**

This zone supports a variety of informal, nonmotorized recreational uses along the creek. Activities range from passive recreation and repose to the physically challenging. Activities include bicycling, walking, picnicking, canoeing and kayaking, birding and other nature study, in-line skating, and jogging. The road corridor remains along the existing alignment of Beach Drive. Facilities include rustic picnic tables, grills, and interpretive waysides and information boards.

## **VALLEY FLOOR MID-WEEKDAY RECREATION ZONE**

On weekdays between 9:30 A.M. and 3:30 P.M., this zone is managed in a manner similar to the Valley Floor Nonmotorized Recreation Zone. At all other times, its management is identical to that of the Valley Floor Controlled Automobile Access Zone.

### **Desired Visitor Experience**

Except during mid-weekday hours, the desired visitor experience is the same as the Valley Floor Automobile Access Zone. During mid-weekdays, the desired visitor experience is like that in the Valley Floor Nonmotorized Recreation Zone and includes unhurried enjoyment of the natural sights, sounds, and smells of the creek valley, uninterrupted by motor vehicle traffic.

### **Desired Resource Conditions**

The desired resource conditions are the same as the Valley Floor Automobile Access Zone.

### **Appropriate Kinds of Activities or Facilities**

Except during mid-weekday hours, activities are identical to those of the Valley Floor Controlled Automobile Access Zone. This includes the use of traffic-calming measures to control volumes and speeds. However, traffic is heavy even when controls are in place, particularly during rush hours. During mid-weekdays, activities are limited to nonmotorized uses, similar to those described for the Valley Floor Nonmotorized Recreation Zone. Facilities are similar to those described in the Valley Floor Automobile Access Zone.

## **ROCK CREEK AND POTOMAC PARKWAY ZONE**

The developed parkway zone connects the National Zoo, Rock Creek Park, and the monumental core of the city with a scenic driving experience. It consists of the parkway, non-forested areas of the right-of-way, parts of the Rock Creek channel, and the paved recreation trail.

This zone provides a scenic corridor through a park-like setting consisting of a mix of forests and fields with limited views of the surrounding city. Landscapes are managed in a sustainable fashion, and the defining features of the historic parkway are preserved.

### **Desired Visitor Experience**

Visitors drive along a well-maintained paved road, or they bicycle, walk, or skate on a paved recreational trail. Following substantial rainfall events, canoeing and kayaking occur on Rock Creek. Views include the creek, overhead bridges, the artistically designed roadway, planting of trees and shrubs, and forest edges.

The experience is linear and sequential in character and is transitional between the adjacent urban landscape, particularly at the southern end of the parkway, and the more natural landscape of Rock Creek Park to the north. Visitors entering the parkway from city streets have a sense of decompression and relaxation. The Godey Lime Kilns offer visitors an opportunity to view a historic industrial ruin. The visitor encounter rate with other visitors in the zone is very high at times, and heavy traffic is accepted.

### **Desired Resource Conditions**

The landscape is substantially modified compared to natural conditions. Native plant materials are used to create an aesthetically pleasing landscape in keeping with the historic parkway design.

Nonnative, noninvasive plant species are used sparingly in this zone within the standards of NPS policies. Historic parkway design features are maintained, as are the ruins of Godey Lime Kilns.

### **Appropriate Kinds of Activities or Facilities**

Visitor activities include driving, bicycling, walking, jogging, canoeing and kayaking, and in-line skating. Landscape management is relatively intensive, including such activities as mowing and trimming, tree planting or removal, and invasive plant control. Existing levels of development are maintained. Some intersections or other points are rehabilitated for visitor safety or aesthetics, but the redesign avoids increasing the capacity of the roadway or encouraging increased speeds. Speed limits and other traffic regulations are enforced.

### **PARK ROAD ZONE**

The Park Road Zone includes all paved roads, other than Beach Drive and the Rock Creek and Potomac Parkway, that are owned and maintained by the National Park Service and are open to automobile use by the public. The zone is a narrow corridor that includes the road surface, shoulders, and associated pullouts, parking areas, and paved trails. These corridors provide scenic driving, as well as pedestrian and bicyclist access, to park recreational and interpretive facilities.

### **Desired Visitor Experience**

The primary visitor experience goal for this zone is an unhurried drive or bicycle ride through a scenic, aesthetically pleasing natural landscape. The roadways and paved trails within this zone are used by visitors for traveling in the park, enjoying scenic vistas, and accessing interpretive and recreational facilities and other zones. The visitor experience generally depends on a motorized vehicle or bicycle, and involves traveling on a well-maintained, paved surface designed to complement the forest setting.

The frequency of visitor encounters with other visitors on park roads is high to very high. The latter condition occurs most often during weekday rush hours, when many of the roads in this zone are used by commuters to travel across or through the park. Although such nonrecreational use is viewed as a secondary purpose for park roads, it is accepted so long as traffic volumes do not pose an undue threat to visitor safety, cause resource damage, or create excessive traffic congestion in the park.

### **Desired Resource Conditions**

On park roads that have been identified as cultural resources, a strong emphasis is placed on the aesthetic quality of the roadways, including their ability to harmonize with the surrounding forest and retain the historic, rustic design of early park facilities. Within the goal of maintaining the historic appearance and function of the roads, some modern traffic signage and traffic control devices are accepted for visitor safety, and curbing and drainage structures may be rehabilitated to improve storm water control.

### **Appropriate Kinds of Activities or Facilities**

All roads, recreational trails, and associated facilities in this zone are managed to complement the natural setting and historic road design. The design and capacity of the roads are not adjusted to meet nonrecreational traffic volumes. Rather, traffic-calming measures are used to reduce nonrecreational traffic volumes and congestion if they become a problem. Sidewalks or paved trails are provided adjacent to the road in some corridors to improve pedestrian and bicycle access from ad-

jacent streets and neighborhoods. Temporary closures are appropriate after snow storms to allow winter recreational opportunities such as sledding and skiing.

### **VISITOR FACILITY ZONE**

This is a developed zone that is defined by facilities for information, interpretation, education, and other visitor services. High maintenance and intervention are required to accommodate concentrated visitor use. In some cases, the zone includes historic structures that have been adapted for visitor services.

#### **Desired Visitor Experience**

Visitors in this zone are introduced to the natural and cultural history of the park and are provided with information on recreation opportunities. They participate in variety of activities related to environmental and cultural history. Access is easy and convenient. Social interaction is common, and the encounter rate with other visitors and park staff is very high.

#### **Desired Resource Conditions**

The developed areas in this zone receive a high degree of maintenance and intervention to accommodate concentrated visitor use. Historic buildings and grounds that have been adaptively used for visitor services are maintained in keeping with NPS policies and the Secretary of the Interior's (1995a and 1995b) standards for the protection of cultural resource values. Natural and cultural resources are integrated into educational and interpretive programs where appropriate. Nonnative plant species are used sparingly in this zone within NPS policies.

#### **Appropriate Kinds of Activities or Facilities**

This zone includes facilities where the predominant use involves providing information and interpretive services. Facilities include exhibits and other media, auditorium, book sales, and other aids for promoting visitor understanding of the park and its resources. Consistent with NPS policies for preservation and use of cultural resources, historic structures could be adaptively used for visitor services.

### **URBAN RECREATION ZONE**

The urban recreation zone includes facilities and grounds associated with reserve picnic areas, community gardens, horseback riding facilities, sport fields, the golf course, entertainment areas, and other active recreation that is consistent with traditional uses of the park. Although the natural environment is substantially modified within the zone, the background is rustic and park-like.

High levels of intervention and maintenance are required to support concentrated visitor use. Noise and visual impacts are mitigated to avoid disturbances to other visitors and park neighbors.

#### **Desired Visitor Experience**

The visitor experience in this zone is strongly associated with the presence of developed facilities. Social interactions are supported, and the visitor encounter rate with other visitors is very high.

Visitors participate in active recreation and entertainment events within a background provided by the rustic setting.

### **Desired Resource Conditions**

Vegetation within the zone is managed to support the designated recreational activities for each site. Native vegetation is preferred, although nonnative species are used within this zone in keeping with *Management Policies 2001* (NPS 2000a). Facilities within the zone are buffered to avoid noise and visual impacts to other visitors and neighbors. Storm water leaving the zone meets District storm water codes and does not contribute to the pollution of Rock Creek or its tributaries.

### **Appropriate Kinds of Activities or Facilities**

Activities in this zone include group picnicking, tennis, performances, golf, horseback riding, and informal sports. Facilities include the structures and land modifications that support these activities, with associated infrastructure such as parking areas and public toilets.

## **ADMINISTRATION/OPERATIONS ZONE**

This zone is defined by structures and grounds used for park administration and operations, such as offices, maintenance shops, storage areas, holding cells, horse patrol stables, and laboratories. This zone typically is highly modified and intensively maintained. However, areas within this zone that include multiple vegetation stages, such as grasses, brush, and trees, are attractive to wildlife and are used for nature study, particularly birding.

### **Desired Visitor Experience**

Most visitors are unaware of the facilities in this zone during their visit, and the encounter rate among visitors is low. Visitors involved with nature study or who have special needs, such as permits or first aid, are able to locate facilities easily and find them to be user friendly. Facilities in the zone provide a safe and aesthetic work environment for park staff.

### **Desired Resource Conditions**

The zone is limited to existing developed or disturbed sites in the park. Facilities in this zone result in sustainable development through the application of best management practices. The spatial extent of structures and stored materials in the zone is minimized.

While the natural environment is highly modified within the zone, the practice of maintaining vegetation in multiple stages has produced high-quality wildlife habitat. In particular, some areas such as the maintenance yard and stables attract large numbers of migrating birds. While this condition developed inadvertently, this zone is managed to maintain this condition.

Pollutants or other disturbances are contained or mitigated and do not affect adjoining areas. In particular, storm water leaving the zone meets District storm water codes and does not contribute pollution to Rock Creek or its tributaries. Sites in this zone are buffered to avoid noise and visual impacts on visitors and neighbors.

Consistent with NPS policies for preservation and use of cultural resources, historic structures could be adaptively used for administration. Other cultural resources within the zone are documented and salvaged if necessary. Nonnative plants are used sparingly, if at all.

### **Appropriate Kinds of Activities or Facilities**

Facilities support park administration and operational needs. They may include office space; police facilities such as holding cells, laboratories, and stables; storage facilities for fuel, salt, sand, stone, and equipment; vehicle maintenance areas; shops for carpentry and plumbing; staff conference sites; and employee parking.

### **URBAN TRANSIT ZONE (NON-NPS ROADS)**

This zone includes roads that are owned and maintained by the District of Columbia that are within the boundaries of the park and parkway. Examples include Military Road, Broad Branch Road, Porter Street/Klingle Road, Calvert Street, Connecticut Avenue, Massachusetts Avenue, Q Street, P Street, M Street, Pennsylvania Avenue, and the Whitehurst Freeway/K Street. These roads provide access across the park and parkway and connections with the urban street grid.

The zone encompasses nonconforming (nonpark) uses. In most cases, the right-of-way within the zone is under the jurisdiction of the District of Columbia.

The National Park Service works with District and other agencies to maintain the zone as compatibly as possible with park values. This includes emphasizing scenic views, the historic character of road structures, and linkages between the park and local trails.

### **Desired Visitor Experience**

The presence of bridges and cross roads reminds visitors that they are still within the city while in Rock Creek valley. Within this zone, visitors experience the sights and sounds of urban traffic, although measures are taken to minimize noise to the extent practical. The frequency of encounters among visitors within the zone is very high.

### **Desired Resource Conditions**

Storm water runoff from the zone meets District standards before it enters Rock Creek. Bridges and roads crossing the park are compatible in design and management with the rustic and historic scene. Scenic views of the park from roads and bridges in the zone are protected and contribute positively to the character of the city.

### **Appropriate Kinds of Activities or Facilities**

This zone primarily supports urban transportation rather than the purposes of the park. The National Park Service cooperates with other agencies to link the park to local trails for nonmotorized recreation within these corridors where practical.

## FORMULATION OF ALTERNATIVES

*This section describes how, in concert with public input, the National Park Service developed the four alternatives that are presented in this final general management plan.*

### PUBLIC INPUT AND THE DEVELOPMENT OF ALTERNATIVES A, B, AND C

Many aspects of the desired future condition of Rock Creek Park and the Rock Creek and Potomac Parkway are defined in the establishing legislation, park purpose and significance statements, and servicewide mandates and policies that were described earlier. Within these boundaries, the National Park Service solicited input from the public regarding the long-term goals for the park, and measures that could be implemented to achieve those goals.

The public was first invited to suggest ideas for the future of the park and parkway during scoping at the beginning of the general management planning project in June 1996 (see “Consultation and Coordination”). About 800 people responded. A large majority favored closing some of or all park roads and providing increased protection of the environment.

Based on early public comments, and within the framework established by legislation and mandates, the planning team developed four “preliminary alternative scenarios” that attempted to reflect the range of ideas proposed by the public. These approaches, which are described below, were published for public review and comment in newsletter 3 in June 1997 (NPS 1997c).

*Preliminary Alternative Scenario 1:* The National Park Service would maintain the current management direction.

*Preliminary Alternative Scenario 2:* Current management would be adjusted to reduce costs, emphasize group recreational opportunities, and control traffic on existing roads.

*Preliminary Alternative Scenario 3:* Leisurely driving, walking, cycling, and other recreation would be emphasized by permanently closing a short section of Beach Drive north of Broad Branch Road and restricting traffic elsewhere. The scenario also called for removal of boarding stables and community gardens from the park to reduce environmental disturbance and provide more equitable public access.

*Preliminary Alternative Scenario 4:* The “urban wilderness” scenario called for restoring the golf course and Military Field to forest. The scenario also called for removal of boarding stables and the community gardens and permanently closing four sections of Beach Drive to automobiles.

About 1,000 people responded to newsletter 3. Public comments overwhelmingly favored retaining the kinds of experiences and opportunities currently provided by the park and parkway. Removal of established recreational facilities, including community gardens, horse stables, and the golf course, was almost universally opposed. Respondents generally supported improving interpretation and education opportunities in the park. Public comments on the traffic management approaches proposed in newsletter 3 fell into three general responses, including



maintaining the current traffic pattern

reducing current traffic volumes and speeds in the park on the existing road system

closing selected park roads and improving control of traffic on open segments

The great majority of respondents in the third category indicated that they were not satisfied with either preliminary alternative scenarios 3 or 4. Instead, they supported extending the current weekend road closures to full time. Consequently, the National Park Service included this position as part of Alternative C in this final general management plan.

A summary of comments was provided in newsletter 4 (NPS 1998c). Based on these comments and NPS management concerns, the National Park Service developed the three decision points described earlier in the section entitled "Decision Points." Other actions that were suggested by the public, and the justifications for not incorporating them into any of the alternatives, are described in the section "Alternatives or Actions Eliminated from Further Study."

Based on the public comments and decision points, the four preliminary alternative scenarios were modified into three of the alternatives that are evaluated in this final general management plan. The alternatives are as follows:

*Alternative A: Improved Management of Established Park Uses.* Alternative A would modify current management to improve visitor safety, better control traffic volumes and speeds through the park, enhance interpretation and education opportunities, and improve the protection of park resources. It generally would retain the current scope of visitor uses.

*Alternative B: Continue Current Management/No Action.* Alternative B would continue the current management pattern into the future. It represents the "no action alternative" required by the Council on Environmental Quality (1978) guidelines for implementing the National Environmental Policy Act (NEPA).

*Alternative C: Nonmotorized Recreation Emphasis.* Alternative C is based on comments by members of the public who favor promotion of nonmotorized recreation. Alternative C would eliminate automobile through-traffic in northern portions of the park and control through-traffic in the southern portion of the park and on the parkway. Non-traffic-management proposals for Alternative C would be the same as in Alternative A.

## FORMULATION OF ALTERNATIVE D

In January 2001, the National Park Service received a letter from Mr. Anthony A. Williams, the Mayor of the District of Columbia. The letter encouraged the National Park Service to consider another alternative, which would implement "weekday vehicular traffic restrictions on sections of upper Beach Drive in non-rush-hour periods." The goals stated in the letter would include "reducing automobile traffic in the most sensitive portions of Rock Creek Park, while minimizing any impact on surrounding neighborhoods and commuters." A copy of the letter is provided in appendix D. The alternative developed to address this letter is as follows:

*Alternative D: Mid-Weekday Recreation Enhancement.* On weekdays, Alternative D would close three segments of Beach Drive to motorized traffic between 9:30 A.M. and 3:30 P.M. This would not change cross-park traffic patterns, but would provide a nonmotorized setting for recreation through much of the northern portion of the park during non-rush-hour periods. It would also maintain driving for pleasure along the length of Beach Drive as an allowed activity during such popular times as weekday summer evenings. This alternative would include all of Alternative A's non-traffic-management actions, as well as most of the traffic-calming measures of that alternative.

These four alternatives embody the range of what the public and the National Park Service want to see accomplished with regard to visitor experience, natural resource conditions, and cultural resource conditions. They are based on outcomes, or actual conditions on the ground, as expressed by the management prescriptions.

The configurations for future park conditions and management within each alternative were developed by placing the management prescriptions described previously on the map. None of the alternatives contains all of the management prescriptions. Instead, each consists only of those prescriptions that achieve the goals for the park under that alternative.

In some cases, all four alternatives apply the same management prescription to the same area. For example, Fort DeRussy and the Godey Lime Kilns are within the Cultural Resource Zone in all four alternatives. This occurs because this appears to be the most appropriate way to manage these facilities, regardless of the alternative selected for the park.

## **FORMULATION OF THE NPS' FINAL PREFERRED ALTERNATIVE**

The draft general management plan and environmental impact statement was released to the public for comment in April 2003. After reviewing all comments received on the plan, the NPS used its standard process, called Choosing by Advantages, to formulate the preferred alternative for the final general management plan. Through this process, the NPS determined the best features among all of the alternatives evaluated in the draft general management plan. The decision on the preferred alternative was sent to the director of the National Park Service and the assistant Secretary of the Interior for their approval.

The preferred alternative in this final general management plan is Alternative A, which includes minor modifications from the draft version of this alternative. Changes to Alternative A between the draft and final versions of the general management plan include

- eliminating high-occupancy vehicle (HOV) requirements during rush hours on Beach Drive

- providing an increased emphasis on flexibility and the use of an adaptive management approach, including implementing actions on a trial and/or seasonal basis, to identify and apply the most effective techniques for reducing traffic volumes and speeds on Beach Drive

- implementing measures to encourage some of the automobile traffic on Beach Drive to voluntarily use Ross Drive

## MITIGATION

Mitigation is a key concept in resource management planning. It provides a means for accommodating visitor interactions and park operations with natural and cultural resources and their tolerances for disturbances.

Mitigation and best management practices are regularly used to ensure that the park's natural and cultural resources are protected and preserved for future visitors without impairment. In the legislation that created the National Park Service, Congress charged it with managing lands under its stewardship "in such manner and by such means as will leave them unimpaired for the enjoyment of future generations"(NPS Organic Act, 16 *United States Code* 1). As a result, the National Park Service routinely evaluates and implements mitigation whenever conditions occur that could adversely affect the sustainability of park resources.

Mitigation was included throughout the formulation of the alternatives included in this general management plan. A few examples include considering different options for the park's administrative offices, identifying approaches to reduce roadkill of terrestrial wildlife, and incorporating best management practices to reduce non-point discharges of animal wastes from stable areas.

## **THE PREFERRED ALTERNATIVE**

*The preferred alternative is the alternative that the National Park Service believes would best accomplish its goals for managing Rock Creek Park and the Rock Creek and Potomac Parkway. Selection of the preferred alternative is based on consideration of economic, environmental, technical, and other factors.*

All the alternatives would preserve the important historic, cultural, and natural resources in Rock Creek Park and along the Rock Creek and Potomac Parkway for future generations. As funds allowed under each alternative, activities would continue in keeping with NPS policies and federal laws and regulations. These would include such actions as surveying native species and archeological sites, controlling invasive species, restoring habitats, and improving water quality.

The largest differences among the alternatives are associated with the three decision points, including managing traffic, providing visitor information and interpretive services, and meeting administration and operational needs. Within these broad categories are such differences as the most appropriate use of some cultural resources, and the ability to reduce risk to wildlife from collisions with vehicles (roadkill).

The most difficult decision to be made in the general management planning process is the management of traffic on the park road system. Park roads are recognized historic resources and the primary means for most visitors to experience the park. They also are used as part of the city's traffic network. Displacement of motorized traffic from park roads, particularly during rush hours, could increase traffic on arterials and neighborhood roads outside the park. It could also encourage the use of mass transit, and/or promote commuting by bicycle or on foot.

The councils of the District of Columbia and Montgomery County have passed formal resolutions emphasizing the importance of Beach Drive and the Rock Creek and Potomac Parkway to the local and regional transportation system. The councils have urged that these corridors remain open with no new restrictions to motor vehicles because of their concerns for potential adverse effects on the heavily burdened regional street grid. This position is supported by the Maryland Department of Transportation, the District of Columbia Department of Public Works, several neighborhood organizations, and many individuals who commented during scoping.

This traffic management approach is included in Alternative B: Continue Current Management/No Action.

Alternative A: Improved Management of Established Park Uses and Alternative D: Mid-Weekday Recreation Enhancement also would comply with the intent of these resolutions. While both of these alternatives would include traffic-calming measures and improved enforcement of speed limits, both would keep park roads and the parkway open without restrictions (such as requiring at least two people per vehicle) during rush hours. (The mid-day closures of Alternative D would not affect rush-hour traffic.)

Traffic modeling indicates that regardless of park management actions, commuter traffic will increase throughout the region. By the year 2020 with Alternative B, commuter traffic along some portions of Beach Drive would routinely include near-gridlock conditions, with average travel

speeds only a third of free-flow speeds, vehicular backups, and long delays. This situation in Rock Creek valley would increase risks to visitors and disrupt their appreciation of the park.

In addition to providing inadequate traffic management, Alternative B presents several other environmental and park management concerns.

Increasing pedestrian and bicycling use would not be served by maintaining the paved recreational trail system in its existing, inadequate condition.

The park would continue to have inadequate capability to provide environmental education to students and basic orientation and interpretation services to other visitors.

Future administration and operational efficiency would be impaired by the inadequate, existing support facilities.

Continued use of the Peirce-Klingbe Mansion and the Lodge House for expanding administrative purposes could further affect these historic structures.

Consequently, the National Park Service does not consider Alternative B to be satisfactory.

Each action alternative is environmentally acceptable and, as shown in table 3, each has advantages. The National Park Service has identified Alternative A as the preferred alternative in this final general management plan based on its ability to best balance the recreational, environmental, and traffic considerations for the short- and long-term future of the park.

**TABLE 3: ADVANTAGES OF THE ACTION ALTERNATIVES**

<b>Advantage</b>	<b>Alternative A</b>	<b>Alternative C</b>	<b>Alternative D</b>
Reduces rush-hour motorized traffic volumes in the park	✓	✓	
Reduces non-rush-hour motorized traffic volumes in the park	✓	✓	✓
Slows the speed of traffic through the park	✓	✓	✓
Improves conditions for nonmotorized recreation	✓	✓	✓
Promotes recreational activities such as bicycling and walking in the park and region	✓	✓	✓
Supports regional efforts to discourage single-occupancy-vehicle use and promote high-occupancy-vehicle use during peak-traffic hours		✓	
Continues the tradition of motor travel on the park road system, which would help preserve the historic integrity of the park design	✓		✓
Improves the protection of the park's natural and cultural resources	✓	✓	✓
Enhances the enjoyment of natural sounds and setting		✓	✓
Increases the safety of cyclists and pedestrians	✓	✓	✓
Improves opportunities for recreation	✓	✓	✓

## **THE ENVIRONMENTALLY PREFERRED ALTERNATIVE**

The environmentally preferred alternative is the alternative that will promote the national environmental policy as expressed in Section 101 of the National Environmental Policy Act. Section 101 states that “It is the continuing responsibility of the Federal Government to

- (1) fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;
- (2) assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings;
- (3) attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;
- (4) preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity and variety of individual choice;
- (5) achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life’s amenities; and
- (6) enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.”

Alternative D is the environmentally preferred alternative for managing Rock Creek Park and the Rock Creek and Potomac Parkway. Alternative D would best satisfy the six national environmental goals at a relatively high level. Features of this alternative would include

closing portions of Beach Drive on weekdays for 6 hours between the morning and evening rush hours and all day on Saturdays, Sundays, and holidays

ensuring continuation of traditional recreational experiences

ensuring that all visitor facilities, including all park roads, remain accessible by automobile for at least part of each work day

better utilizing the park’s cultural resources by improving existing facilities and moving some park administrative functions out of historic buildings so that they can be converted to visitor uses

improving the protection of the park’s natural resources by rerouting poorly designed sections of trail and restoring the abandoned sections

identifying and implementing measures to reduce wildlife mortality along roadways.

These actions would satisfy the six goals of Section 101 as follows:

Road closure during weekdays and all day Saturday and Sunday would allow the safe use of the roadway for nonmotorized recreation such as bicycling, skating, skateboarding, and walking, which would satisfy goals 2 and 3.

Ensuring automobile accessibility to all facilities, including all park roads, for a portion of each work day would satisfy goals 3, 4, and 5.

Moving some park administrative functions out of historic structures and converting the structures to visitor uses would make them more accessible to the public while upgrading the park functions that were moved. This would meet the requirements of goals 3, 4, 5, and 6.

Natural resource protection would be improved by upgrading foot and horse trails where adverse effects on resources such as soils is occurring and working to reduce wildlife roadkill. This would meet the requirements of goals 1, 2, 3, 4, and 6.

Alternative A, like Alternative D, would satisfy all six goals. However, it would not provide as wide a range of beneficial uses or the level of safety for those uses as Alternative D (goals 2, 3, and 5). Because Alternative A would close segments of Beach Drive only on weekends and holidays, pedestrians and bicyclists using the Beach Drive corridor during the week would have a higher level of difficulty and risk because of traffic. However, the traffic calming devices would lower motorized vehicle speeds to make joint recreational use safer. Like Alternative D, Alternative A would provide for accessibility of all facilities by automobile, move park functions out of historic structures and convert them to visitor uses, upgrade foot and horse trails, and work to reduce wildlife roadkill.

Alternative B, the no action alternative, would not achieve the national goals as completely as the action alternatives. With the no action alternative, beneficial effects would not be realized and existing adverse conditions would not be remedied. Protection of cultural and natural resources, articulated under goals 1, 2, and 4, would be at a lower level than would occur with any of the action alternatives. Alternative B would not provide as wide a range of beneficial uses on a daily basis (goal 3), would not support as wide a variety of individual choices (goal 4), and would not achieve as full a balance between population and resource use (goal 5) as the action alternatives.

Alternative C, the nonmotorized recreation emphasis alternative, would be similar to Alternative D in most respects for goals 1, 2, 4, 5, and 6. However, permanently closing the road in the northern section of the park would be contrary to goal 3 of attaining the widest range of beneficial uses. This alternative would end automobile travel along the length of Beach Drive, which is a popular activity within the park. While it would improve safety within the closed areas for nonmotorized recreation, it would narrow the range of ways that visitors could access and enjoy Rock Creek Park.

## **ALTERNATIVE A: IMPROVED MANAGEMENT OF ESTABLISHED PARK USES**

*This section describes Alternative A, including the concept that defines the alternative, where the management prescriptions that would be included in this alternative would be applied, and the approximate costs.*

### **CONCEPT**

Alternative A is the NPS' preferred alternative. The goals of Alternative A would be to

- preserve traditional visitor experiences and activities
- enhance natural, cultural, and scenic values in the park
- assert control over nonrecreational use of park roads to improve the safety and quality of the experience for visitors participating in nonmotorized recreation
- optimize the use of structures for purposes such as interpretation, visitor contact, and park administration

The existing park roadway system would be retained and nonrecreational through-traffic would be accommodated. However, to improve visitor safety and the quality of the visitor's experience, traffic would be managed to reduce volumes and speeds compared to conditions that would occur if current management were continued (Alternative B).

This approach would be consistent with the 1918 master plan for the park, in which the Olmsted brothers warned against bringing the "noise and tangle" of city traffic into the heart of the park while recognizing a need to accommodate urban traffic across the park. It also would avoid diverting traffic from Beach Drive onto neighborhood streets in the surrounding communities.

Weekend and holiday road-segment closures to motorized vehicles would continue to promote recreational activities on the road surfaces in the valley, such as walking, in-line skating, and bicycling. Throughout weekdays, recreational uses of Beach Drive would continue to share the road with automobile traffic, but at reduced traffic volumes and speeds.

Better use of the park's cultural resources would be made in Alternative A. This would include moving some park functions out of historic buildings and converting those structures to visitor contact, education, and interpretation. Improvements to existing facilities would also be made. Park administrative and police functions that currently occur in historic buildings would be moved to nearby commercial space outside the park, or to new facilities constructed within already-developed areas of the park.

Alternative A would improve the protection of the park's natural resources. For example, poorly designed sections of foot and horse trails would be rerouted, and the abandoned trail sections would be restored to natural conditions. During these activities, each trail site would be evaluated to determine effects on safety and on cultural and natural resource values. Improvements would be designed to maximize the former while protecting the latter. To improve protection of terrestrial wildlife, the National Park Service would identify the most frequent locations of roadkill and would implement measures, possibly including traffic controls or protected crossways (culverts), to reduce mortality to wildlife from collisions with vehicles.



Measures that could be taken to achieve the Alternative A goals are embodied in the management prescriptions for Alternative A. These are summarized in table 4 and shown on the Alternative A map.

**TABLE 4: MANAGEMENT PRESCRIPTION ZONING UNDER EACH ALTERNATIVE**

Management Prescription	Acres/Percent of Total Park Area			
	Alternative A: Improved Management	Alternative B: Continue Past Management	Alternative C: Nonmotorized Emphasis	Alternative D: Mid-Weekday Recreation
Forest Zone	2,331 acres/ 79 percent	2,331 acres/ 79 percent	2,331 acres/ 79 percent	2,331 acres/ 79 percent
Cultural Resource Zone	6 acres/ 0.2 percent	2 acres/ <0.1 percent	6 acres/ 0.2 percent	6 acres/ 0.2 percent
Valley Floor Automobile Access Zone	--	184 acres/ 6 percent	--	--
Valley Floor Controlled Automobile Access Zone	184 acres/ 6 percent	--	134 acres/ 5 percent	134 acres/ 5 percent
Valley Floor Nonmotorized Recreation Zone	--	--	50 acres/ 2 percent	--
Valley Floor Mid-Weekday Recreation Zone	--	--	--	50 acres/ 2 percent
Rock Creek and Potomac Parkway Zone	161 acres/ 5 percent	161 acres/ 5 percent	161 acres/ 5 percent	161 acres/ 5 percent
Park Road Zone	74 acres/ 2 percent	74 acres/ 2 percent	74 acres/ 2 percent	74 acres/ 2 percent
Visitor Facility Zone	1 acre/ <0.1 percent	3 acres/ 0.1 percent	1 acre/ <0.1 percent	1 acre/ <0.1 percent
Urban Recreation Zone (includes Brightwood area)	200 acres/ 7 percent	200 acres/ 7 percent	200 acres/ 7 percent	200 acres/ 7 percent
Administration/Operations Zone	5 acres/ 0.1 percent	7 acres/ 0.2 percent	5 acres/ 0.1 percent	5 acres/ 0.1 percent
Urban Transit Zone	8 acres/ 0.2 percent	8 acres/ 0.2 percent	8 acres/ 0.2 percent	8 acres/ 0.2 percent

## MANAGEMENT PRESCRIPTIONS

Management prescription zoning under Alternative A is shown in the Alternative A map. The management prescriptions were described previously in this final general management plan.

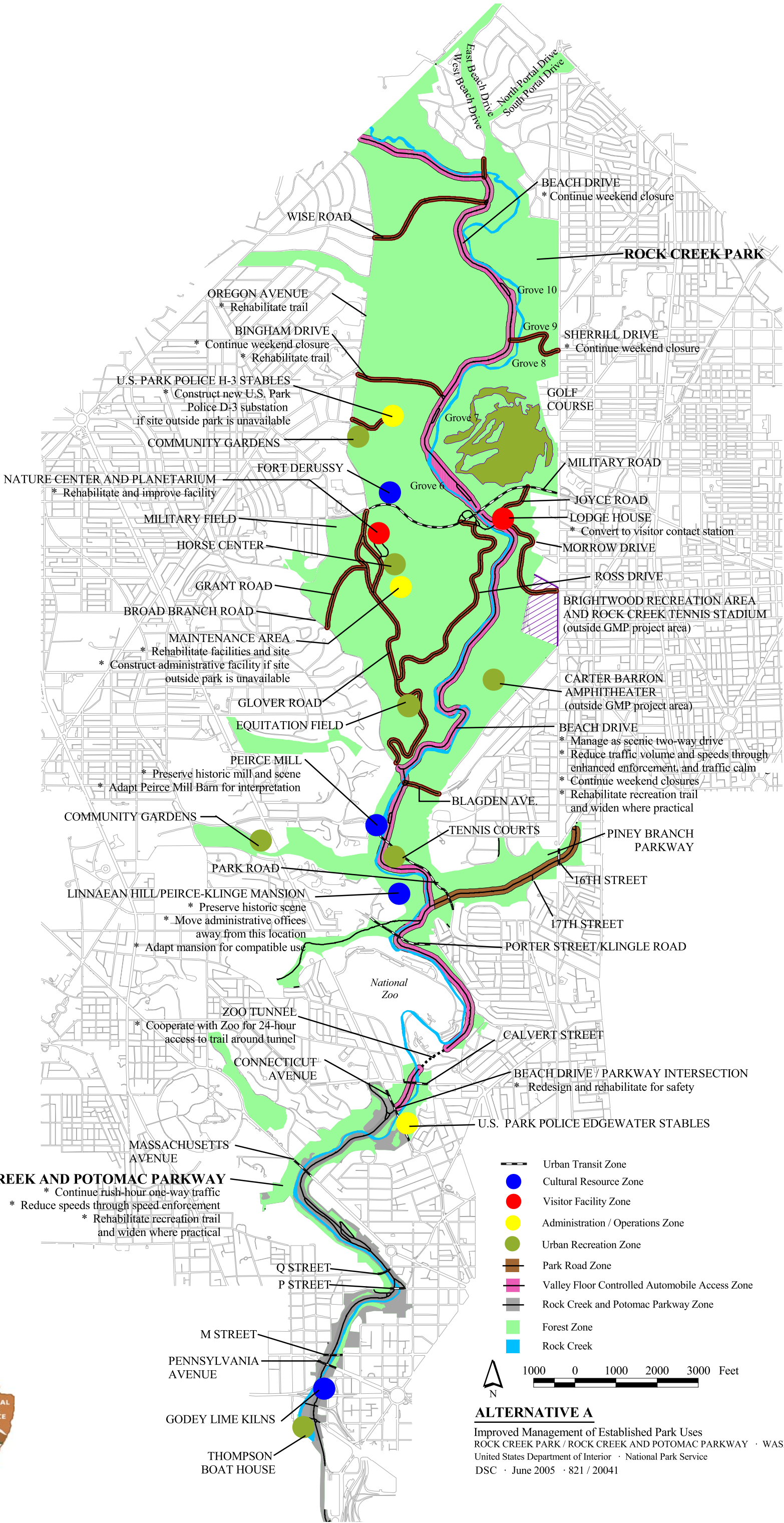
### Forest Zone

The Forest Zone would be applied to 79 percent of the park (2,331 acres). There would be no major change in the management of forested areas of the park from current management practices.



**ROCK CREEK AND POTOMAC PARKWAY**

- \* Continue rush-hour one-way traffic
- \* Reduce speeds through speed enforcement
- \* Rehabilitate recreation trail and widen where practical



**ALTERNATIVE A**

Improved Management of Established Park Uses  
ROCK CREEK PARK / ROCK CREEK AND POTOMAC PARKWAY · WASHINGTON, DC  
United States Department of Interior · National Park Service  
DSC · June 2005 · 821 / 20041



Existing horse and foot trails would be maintained. The trail system would be evaluated, initially by reviewing previous studies (NPS 1980, 1990c, and 1993) and then by conducting field studies and preparing a trail plan. Poorly designed trail sections would be rerouted and abandoned trail sections would be restored to natural conditions. An estimated 2 miles of paved trail parallel to Oregon Avenue would be rehabilitated under Alternative A to improve the trail surface. As discussed previously, bicycles would not be allowed off of roads, parking areas, and designated paved trails.

Military Field and other, smaller meadows in the park would be managed as part of the Forest Zone to promote the diversity of native plants and habitats and to preserve the scenic variety in the park. However, rather than allowing these areas to revert to forest, they would be mowed periodically to maintain them as meadows with early successional native plants and open space for nonorganized recreation. Treatment of the meadow areas would be designed to ensure protection of archeological resources. This management approach is consistent with current management of park meadows.

### **Cultural Resource Zone**

Alternative A would increase the area of the park managed primarily for protection of park historic resources to about 6 acres (0.2 percent of the park). The types of actions that could be implemented at some of the historic sites in the park are identified below.

**Peirce Mill Complex.** The Peirce Mill complex would be the primary location for interpreting the history of milling and historic land use in the Rock Creek area. This would expand on the already completed rehabilitation of the Peirce Barn, which serves as a visitor contact point with exhibits on the history of the Peirce estate and milling in the Rock Creek valley. Visitor understanding and appreciation of the mill complex would be emphasized.

The mill would be managed consistent with the recommendations of the draft historic structures report for this facility (Friends of Peirce Mill and Quinn Evans, Architects 2000). Peirce Mill would provide a historically accurate representation of a typical mill complex in the region. This would include restoring the milling machinery to a fully operable condition. However, because the mill race was relocated away from the site many years ago, it will not be possible to restore operation of the mill using water power. The landscape of the complex would be rehabilitated to retain the historic character while allowing continued use.

**Linnaean Hill Building Complex.** The Linnaean Hill building complex and its associated designed historic landscape would be rehabilitated. Park administrative offices currently housed in the Peirce-Klingbe Mansion would be relocated to another facility, as described in the Administration/Operations Zone, below.

The exterior of the historic buildings would be accorded appropriate preservation treatment to protect their documented resource values.

The building interiors would be adaptively used for activities compatible with park resource values and the maintenance of the historic structures.

The landscape of the complex would be rehabilitated to retain the historic character while accommodating continued park use.

**Other Cultural Features.** Other cultural features, including but not limited to Fort DeRussy, the Godey Lime Kiln, and the Miller cabin, would be maintained according to accepted NPS practices. Interpretive enhancements would be guided by future interpretive plans.

### **Valley Floor Controlled Automobile Access Zone**

The Valley Floor Controlled Automobile Access Zone (184 acres, 6 percent of the park) would continue to be managed to preserve the valley's characteristic mix of forest, grassy openings, and floodplain terraces interspersed with rustic facilities. Types of actions that could be taken within this zone include the following.

**Beach Drive.** The tradition of automobile travel along the length of Beach Drive would be maintained. However, the goal in this zone would be to manage the road primarily as a scenic drive, rather than as a nonrecreational travel route, by reducing traffic volumes and speeds. The following types of measures could be implemented to reduce traffic speeds on Beach Drive.

Improve speed limit enforcement. This would include the goal of adding two new, full-time staff positions for traffic enforcement.

Implement traffic-calming measures to slow vehicle speeds. Such measures might include rumble strips, speed humps and speed tables, and intersection modifications such as all-way stops, traffic circles, reduced turning radii, and raised intersections. The intent would be to influence some drivers who currently choose routes through the park for their expedience rather than the aesthetic experience to voluntarily select non-park routes.

Encourage some of the drivers who normally would travel through the park without stopping to use the scenic Ross Drive route rather than Beach Drive. This might be accomplished through a combination of signage, lowered speed limits on Beach Drive relative to Ross Drive, and use on Beach Drive of the engineered traffic-calming features mentioned above.

Reduced speeds on Beach Drive could encourage increased use of Ross Drive between Joyce Road and Broad Branch Road by nonrecreational traffic. This could result in fewer automobiles in the gorge area during non-rush-hour periods, which would enhance recreational use.

Alternative A will stress the use of adaptive management to achieve the goal of controlling traffic volumes and speeds on Beach Drive. If an initial approach is not successful, the National Park Service will try other approaches until the goal is achieved.

The initial implementation plan for traffic management on Beach Drive will be released with this document. It will provide specifics on traffic calming devices, changes in speed limits, time periods for implementation, signage and public awareness strategies, and evaluation thresholds for determining success or the need to develop and implement alternate approaches. Although the intent of the plan will be to improve traffic management along the entire length of Beach Drive and throughout the park and parkway, the initial implementation plan will especially target the segment of Beach Drive between Joyce Road and Broad Branch Road.

Alternative A will allow experimentation to identify and implement the most effective approach. For example, traffic-calming measures could be installed singly or in combination, and the speed

limit on Beach Drive could be reduced from the current 25 miles per hour. Alternative A would maintain the current pattern of two-way traffic. It would not include any high-occupancy requirements for vehicles.

Current weekend and holiday closures would continue for sections of Beach Drive (as well as Sherrill and Bingham Drives, which are in the Park Road Zone). The goal would be to provide opportunities for nonmotorized recreation in the corridor without traffic interference on weekends, when demand for nonmotorized recreation is highest. Ross Drive would remain open as an alternate route for motorists.

**Paved Recreational Trail.** An estimated 5.3 miles of trail in the Valley Floor Controlled Automobile Access Zone would be upgraded under Alternative A. The existing paved recreational trail sections paralleling Beach Drive would be rehabilitated for visitor safety. This could include realigning some sections.

**Reduction of Roadkill.** The intent of Alternative A of reducing the volume and speed of traffic on Beach Drive would result in some reduction in roadkill. Alternative A also would improve NPS monitoring of the frequencies and locations of animals killed or injured by collisions with vehicles. The mapping of roadkill sites would indicate locations where methods to reduce road mortality would be most effective. This alternative would then include the implement of techniques, either singly or in combination, to reduce roadkill. These may include public education about vehicle hazards to wildlife; warning signs, road striping, and speed humps or speed tables to reduce speeds and enhance driver alertness; and strategically placed underpasses (culverts) for small animals such as reptiles and amphibians.

**Improved Orientation Information.** The National Park Service would implement actions to better inform visitors that they were entering a national park and provide improved orientation information. These could include

installing orientation signs at all road and trail entry points that notified the visitor of their entry into Rock Creek Park and that provided a map showing the visitor's current location, major roads and trails, visitor contact sites, and other sites of potential interest

low-power radio transmissions to provide park information to drivers, including sites of interest, visitor contact stations, and traffic restrictions on park roads

### **Rock Creek and Potomac Parkway Zone**

The parkway corridor, which covers 161 acres (5 percent of the park), would continue to be managed for a landscape mix of fields and forest. This would provide both a pleasant aesthetic experience, and visual and sound buffers.

The paved recreational trail paralleling the parkway would be improved and realigned in segments. The goal would be to provide a safe pathway separated from the roadway. An estimated 2 miles of trails would be upgraded within the Rock Creek and Potomac Parkway Zone.

Rush-hour lane reversals (one-way traffic) would continue on the parkway. Traffic modeling indicates that discontinuing the practice would lead to increased traffic on Beach Drive. An automated system for accomplishing lane reversals may be implemented.

The intersection of the parkway with Beach Drive near Connecticut Avenue would be improved to increase safety for pedestrians, cyclists, and motorists. The intersection redesign would not increase traffic capacity or encourage increased speeds through the intersection. Improvements may require reconfiguration of existing roads.

Speed limit enforcement on the parkway would be strengthened as described above for the Valley Floor Controlled Automobile Access Zone. Actions to reduce wildlife roadkill also would be the same as those described for the Valley Floor Controlled Automobile Access Zone.

### **Park Road Zone**

Other park roads (74 acres, 2 percent of the park) would continue to be managed to provide vehicular routes into and through the park. However, park roads would not be widened to increase capacity for nonrecreational traffic. The management emphasis in Alternative A would be on improving linkages between the park and the surrounding neighborhoods.

Improvements could include rehabilitating or constructing recreational trails adjacent to roads to minimize pedestrian and vehicular conflicts, and incorporating better directional and information signs for visitor orientation. About 0.5 miles of trail along Bingham Drive would be upgraded within the Park Road Zone. Approximately 0.75 miles of trail would be added along Piney Branch Parkway to enhance access to Rock Creek Park by foot and bicycle. Up to a mile of other new trail also may be provided. A feasibility study would be conducted to determine the optimal locations for new pedestrian trails.

Bingham Drive and Sherrill Drive would continue to be closed on weekends and holidays for nonmotorized recreation. Following snow storms, several roads in this zone could be closed to provide winter recreation opportunities such as sledding and skiing. These could include, but may not be limited to, Glover Road, Ross Drive, Bingham Drive, Sherrill Drive, and Morrow Drive.

Speed limit enforcement on park roads would be strengthened as described above for the Valley Floor Controlled Automobile Access Zone. Actions to reduce wildlife roadkill and improve visitor orientation also would be the same as those described for the Valley Floor Controlled Automobile Access Zone.

### **Visitor Facility Zone**

Alternative A would improve park information, interpretation, and education services. Under this alternative, the Visitor Facility Zone would occupy about 1 acre (less than 0.1 percent of the park). Potential actions that could be implemented to improve visitor services include converting the Lodge House to a visitor contact station and upgrading the Rock Creek Nature Center and Planetarium.

**Lodge House.** The Lodge House is an attractive, rustic building in a scenic setting in Rock Creek valley just south of the intersection of Beach Drive and Military Road. Under Alternative A, this building would be converted from a U.S. Park Police District 3 substation to a visitor contact station to provide park orientation, information, and interpretation.

Visitors could obtain general park information, park brochures and other publications, directions, event schedules, and permits at the building.

The building would be staffed by an interpretive ranger during high visitation periods. The site also would provide information and orientation when staff were not present.

U.S. Park Police officers would be stationed at the Lodge House to provide a police presence and visibility at this popular location in the park.

The exterior of the structure would be rehabilitated to preserve its documented cultural resource values. Its interior would be converted for visitor contact. Landscaping in front of the building would be rehabilitated to better reflect its rustic and historic character and to better serve visitors. However, the area occupied by the building, its parking lot, and its landscaping, would not be expanded beyond the current area.

**Rock Creek Nature Center and Planetarium.** The nature center area would continue to serve as the park's primary facility for environmental education and natural history interpretation. The building would first be evaluated for inclusion in the National Register of Historic Places, and then rehabilitated and/or expanded to improve the effectiveness of programs for the public. Improvements may include additional classroom space, a covered group shelter for bad weather, and staff offices. The planetarium would be upgraded, including increased seating capacity. Rehabilitation of the building would be aesthetically compatible with the natural setting. Expansion of the structure would be within the existing grounds of the center.

### **Urban Recreation Zone**

Most facilities and activities in the Urban Recreation Zone (200 acres, 7 percent of the park) would be retained at their current levels. These include the community gardens off Oregon Avenue and at Melvin Hazen Park, the Rock Creek Horse Center and equitation field, the Rock Creek Golf Course, the clay tennis courts near Peirce Mill, and reserve picnic areas. The Brightwood Recreation Area and Rock Creek Tennis Stadium, which are outside the area covered by this general management plan, would continue to be managed as specified in the *Final Environmental Impact Statement, Tennis Stadium, Rock Creek Park, Washington, D.C.* (NPS 1995b). The 4,000-seat Carter Barron Amphitheater, where Phase I rehabilitation recently was completed, is not included in this general management plan.

### **Administration/Operations Zone**

Alternative A would address the problems associated with the current location of park administrative offices in the Peirce-Klingling Mansion and District 3 U.S. Park Police operations at the Lodge House. Possible actions for remedying these conditions are described below. In addition, Alternative A would improve the use of the park maintenance area and implement measures to prevent water pollution from runoff at Edgewater.

The area within the Administration/Operations Zone would vary, based on the site selected for the park administrative offices. However, with the configuration shown in the Alternative A map, this zone would occupy approximately 5 acres (0.1 percent of the park).

**Park Administration Offices.** Park administrative offices currently are located in the Peirce-Klingling Mansion. Disadvantages of this arrangement include the following:



The existing buildings are not large enough to accommodate a centralized administrative facility. Substantial alterations to the historic structure would be required to meet future needs of the administrative staff and provide compliance with the Americans with Disabilities Act.

The current use precludes the ability to employ this historic resource for interpretation and education of the public.

Under Alternative A, administrative functions would be relocated to another facility. The goal would be to provide adequate, safe, energy-efficient, and cost-effective office and work space in a manner that minimizes impacts on natural and cultural resources. All park administrative staff would be consolidated into a central office, which would create a more efficient, cohesive working environment.

Section 9.1 of *Management Policies 2001* (NPS 2000a) states that

the Service will not develop, or re-develop, a facility within a park until a determination has been made that . . . it would not be practicable for the facility to be developed, or the service provided, outside the park.

Consistent with this policy, the preferred approach would be to lease or purchase office space outside but near the park. This option is made feasible by the location of the park in the Washington, D.C. metropolitan area, which offers a substantial amount of nearby commercial office space.

If locating administrative functions in commercial space outside the park was judged to be not feasible and new construction in the park was considered, a study with accompanying National Environmental Policy Act documentation tiering from this general management plan and environmental impact statement would be conducted to determine the most appropriate approach or location to house administrative services. This study would include a complete range of alternatives, such as continuing use of the Peirce-Klingbe Mansion (the no action alternative), reconsidering commercial space, constructing a new administrative office within park boundaries, and co-locating park administration with other, existing NPS facilities outside Rock Creek Park.

For a preliminary identification of impacts, this document evaluates the park maintenance area as a representative location for a new park administrative office. However, *this is only a candidate site and this general management plan does not include a commitment to use or favor this location*. Use of this location could require further environmental evaluation under the National Environmental Policy Act.

If administrative office space was constructed within a developed area of the park, the existing non-historic buildings and parking areas at that site might be remodeled or replaced to minimize disturbances of resources, such as loss of wildlife habitat. For any in-park construction involving remodeling or replacement of non-historic buildings, the National Park Service would

include modifications to provide access for employees and visitors with impaired mobility in conformance with the Americans with Disabilities Act

use low-impact development, such as the installation of green roofs, creation of rain gardens, and use of vegetated swales, to minimize areas of impervious surfaces

**U.S. Park Police Substation.** The U.S. Park Police substation for District 3 in the Lodge House currently is overcrowded. There is no opportunity for expanding the existing building because of site limitations and the historic character of the building. Alternative A would move the District 3 substation out of the Lodge House and into a new facility that would be designed to meet police functional needs and improve operational efficiency.

The preferred approach would be to relocate these functions into commercial facilities outside the park in keeping with Section 9.1 of *Management Policies 2001* (NPS 2000a). The National Park Service would work with the General Services Administration to contract for a long-term lease or other arrangement with a private firm that would construct or adapt a facility to U.S. Park Police specifications. However, this option would depend on the availability of adequate commercial properties at the time of implementation. The outside-the-park site would have to be within a reasonable response distance from Rock Creek Park and other sites protected by the District 3 staff. The U.S. Park Police would determine acceptable areas of northwest Washington for accessing the park and other sites, and a determination would be made on whether suitable properties were available at an acceptable price.

A siting study with accompanying National Environmental Policy Act documentation would be prepared if suitable commercial space for the Park Police District 3 substation could not be found outside the park and new construction in the park was considered. Siting studies for the park administration offices and District 3 substation could be conducted separately or jointly. If separate studies were prepared, each impact analysis would consider cumulative effects of both actions.

The range of alternatives could include no action, reconsideration of commercial space, constructing a new District 3 substation within park boundaries, or co-locating the District 3 substation with other, existing Park Police facilities outside Rock Creek Park. To allow for a preliminary identification of impacts, this document evaluates the U.S. Park Police H-3 area on the west side of Rock Creek Park between Bingham Drive and Military Road as a representative in-park location for the District 3 substation. However, *this is only a candidate site and this general management plan does not include a commitment to use or favor this location*. Use of this location could require further environmental evaluation under the National Environmental Policy Act.

All new construction or remodeling would provide access in conformance with the Americans with Disabilities Act and would use low-impact development techniques to minimize areas of impervious surfaces. If the District 3 substation was placed at the H-3 area or any other site with stables, designs would include best management practices to reduce the potential for bacteria-laden wastes to enter the surface water system.

For any approach, the existing stables at H-3 and nearby community gardens would remain.

**Park Maintenance Area.** Alternative A could involve constructing a new building to house park administrative offices at the maintenance area. Such new development would occur only if suitable commercial office space could not be secured outside the park and a siting study with accompanying National Environmental Policy Act compliance determined that the maintenance area was the optimal location for this facility.

New or remodeling construction at the maintenance area for park administration offices would not result in any increase in impervious area at this site compared to existing facilities (buildings and parking lots). This might be accomplished by removing existing single-story buildings and

replacing them with multi-story structures or reducing the size of the parking lot and developing a shuttle service to nearby Metro stations.

Regardless of whether administrative offices were constructed at the site, the maintenance area would be rehabilitated to correct problems with equipment and materials storage, parking, and staff office space. The site would be reorganized and improved within the existing developed area. Best management practices would be implemented to reduce the risk of environmental contamination from operations and to correct drainage problems at the site.

The National Park Service recognizes that the mixed areas of grass, shrubs, and trees at the maintenance area provide high-value wildlife habitat, particularly for migrating birds. Alternative A would include a commitment to

- protect the wildlife habitat by avoiding disturbances to vegetated areas during the implementation of the actions described above

- maintain the existing habitat by continuing the vegetation management practices that have produced the multiple successional stages

- seek opportunities to improve the habitat, possibly in partnership with education, other government, and/or volunteer organizations

**Edgewater.** The U.S. Park Police regional stables and training arena at Edgewater would remain unchanged in its current facilities. However, best management practices would be implemented to reduce the potential for bacteria runoff from the site.

### **Urban Transit Zone**

Existing rights-of-way in the park for non-NPS roads would be classified under the Urban Transit Zone (8 acres, 0.2 percent of the park). The National Park Service would continue to work with the District government to provide linkages to the surrounding city and to protect the historic character of road structures and scenic views in this zone. Actions in this zone might also include the improved visitor orientation measures described for the Valley Floor Controlled Automobile Access Zone.

### **Summary of Trail Improvements**

In the public comments on the draft general management plan, the National Park Service received numerous recommendations that trails in the park be improved. Alternative A includes a substantial commitment to improving existing trails and providing a limited amount of new trail. However, because the proposed upgrades to the park's trail system were identified within each management prescription, the overall trail improvement program was not obvious. Therefore, this section summarizes the types of changes to the trail system that would occur with Alternative A and provides information on how they would be implemented.

The National Park Service has not yet conducted detailed trails studies. Therefore, Alternative A activities related to trails would first include systematically assessing trail conditions, establishing routes, and preparing preliminary concept designs. Because this type of information has yet to be developed, it should be recognized that the following description only indicates the general intent

for trail improvements with regard to locations and lengths and that changes will occur as supporting data are developed. For general management planning purposes, Alternative A changes to the trail system would include the following:

Throughout the park, poorly designed trail segments, such as areas with severe drainage, stability, or soil erosion problems, would be rerouted. The abandoned segments would be restored to natural conditions. Estimates for the lengths and locations of trail that would be rerouted have not been developed but could total a couple of miles. Because this action would improve protection of the park's natural and cultural resources, it would have a high priority.

An estimated 2 miles of paved trail parallel to Oregon Avenue would be rehabilitated to improve the trail surface.

An estimated 5.3 miles of existing paved recreation trail along Beach Drive would be upgraded to improve visitor safety. This could include realigning some sections.

The paved recreation trail paralleling the Rock Creek and Potomac Parkway would be improved and realigned in segments. The goal would be to provide a safe pathway separated from the roadway. An estimated 2 miles of trail would be upgraded.

About 0.5 miles of trail along Bingham Drive would be upgraded.

Approximately 0.75 miles of new trail would be constructed along Piney Branch Parkway to enhance access to Rock Creek Park from the east by foot and bicycle.

Up to a mile of new trail may be provided along park roads other than those mentioned above.

To implement the trail program, the National Park Service would prepare a trail plan that would tie from this general management plan. The assessment, routing, and conceptual design elements of this plan would allow the National Park Service to determine optimal trail alignments that would minimize impacts of trails and avoid conflicts among visitors. This would include exploring feasible options for improving park access for visitors participating in nonmotorized recreation so they can access the park safely without competing with automobiles. The study would outline the trail design and construction standards to be used and would include maps and costs for trail alternatives. As part of this process, the National Park Service would provide National Environmental Policy Act documentation, which would include opportunities for agency and public review and comment.

Protection of park resources would be a key element in designing and implementing the trail improvement program. Considerations would include

correcting existing problems, such as soil erosion, sediment loading of streams, and wetland intrusions

avoiding new disturbances of natural resources such as wetlands, habitats for endangered and other special-concern species, and important components of the deciduous forest, such as mature trees

maintaining the historic character, such as appearances and width, in culturally sensitive areas

## **COSTS**

Cost estimates for implementing Alternative A, including one-time capital costs and annual costs for operations and maintenance, are presented in table 5. Capital costs would total about \$14.8 million.

About 63 percent of the capital costs (\$9.4 million) would be used to rehabilitate and improve the Rock Creek Nature Center and Planetarium, convert the Lodge House to a visitor contact station, and restore the historic Peirce Mill area.

Approximately \$2.1 million of the capital costs (14 percent) would be required to bring existing park features up to existing NPS policy and regulatory requirements.

Another \$2.3 million in capital costs (16 percent) would fund proposed trail improvements.

About \$1.1 million (7 percent) would pay for safety improvements at the intersection of the parkway and Beach Drive, and for traffic-calming devices on Beach Drive.

Annual costs would be \$8.2 million, about \$880,000 more than the annual costs for Alternative B.

The largest part of the new costs (48 percent) would be used to lease commercial space outside the park for the new District 3 substation.

Thirty-five percent of the increased operations costs would fund eight new full-time-equivalent staff positions, including two staff positions for speed and other traffic enforcement and six positions to improve visitor contact, education, and interpretation, primarily at the Lodge House, Peirce Mill complex, and Rock Creek Nature Center and Planetarium.

Seventeen percent would be used to lease administrative space for park headquarters outside the park.

**TABLE 5: ESTIMATED COSTS OF IMPLEMENTING THE ALTERNATIVES <sup>a/</sup>**

	<b>Alternative A</b>		<b>Alternative B</b>		<b>Alternative C</b>		<b>Alternative D</b>	
	<b>Annual Costs</b>	<b>Capital Costs</b>	<b>Annual Costs</b>	<b>Capital Costs</b>	<b>Annual Costs</b>	<b>Capital Costs</b>	<b>Annual Costs</b>	<b>Capital Costs</b>
Current annual funds allocated for park and parkway operations	\$6,200,000	--	6,200,000	--	6,200,000	--	6,200,000	--
Funding to meet NPS policy and regulatory requirements								
Natural resource management	\$388,000	--	\$388,000	--	\$388,000	--	\$388,000	--
Cultural resource management	\$222,000	--	\$222,000	--	\$222,000	--	\$222,000	--
Visitor services	\$388,000	--	\$388,000	--	\$388,000	--	\$388,000	--
Special use management	\$55,000	--	\$55,000	--	\$55,000	--	\$55,000	--
Partnership/cooperative activities	\$111,000	--	\$111,000	--	\$111,000	--	\$111,000	--
Bring existing facilities up to standards								
Peirce-Klingler Mansion	--	\$1,043,000	--	\$1,043,000	--	\$1,043,000	--	\$1,043,000
Maintenance area	--	\$754,000	--	\$754,000	--	\$754,000	--	\$754,000
Miller cabin	--	\$33,000	--	\$33,000	--	\$33,000	--	\$33,000
H-3 U.S. Park Police stables	--	\$233,000	--	\$233,000	--	\$233,000	--	\$233,000
Subtotal	\$7,364,000	\$2,063,000	\$7,364,000	\$2,063,000	\$7,364,000	\$2,063,000	\$7,364,000	\$2,063,000
Proposed facility changes								
Rehabilitate and improve Rock Creek Nature Center and Planetarium	--	\$5,990,000	--	--	--	\$5,990,000	--	\$5,990,000
Convert Lodge House to visitor contact station	--	\$1,442,000	--	--	--	\$1,442,000	--	\$1,442,000
Restore historic Peirce Mill area	--	\$1,919,000	--	--	--	\$1,919,000	--	\$1,919,000
Proposal trail improvements	--	\$2,341,000	--	--	--	\$2,341,000	--	\$2,341,000
Road system changes								
Install six permanent vehicle gates	--	--	--	--	--	\$60,000	--	\$60,000
Construct/install traffic-calming devices on Beach Drive	--	\$244,000	--	--	--	\$244,000	--	\$244,000
Redesign/reconstruct intersection of parkway and Beach Drive	--	\$838,000	--	--	--	\$838,000	--	\$838,000

**TABLE 5: ESTIMATED COSTS OF IMPLEMENTING THE ALTERNATIVES (Continued)**

	<b>Alternative A</b>		<b>Alternative B</b>		<b>Alternative C</b>		<b>Alternative D</b>	
	<b>Annual Costs</b>	<b>Capital Costs</b>	<b>Annual Costs</b>	<b>Capital Costs</b>	<b>Annual Costs</b>	<b>Capital Costs</b>	<b>Annual Costs</b>	<b>Capital Costs</b>
Additional annual operational costs								
Lease headquarters office space <sup>b/</sup>	\$150,000	--	--	--	\$150,000	--	\$150,000	--
Maintain paved trails	\$1,000	--	--	--	\$1,000	--	\$1,000	--
Maintain traffic-calming devices	\$1,000	--	--	--	\$1,000	--	\$1,000	--
Improve enforcement of speed limits (and HOV requirements for Alternative C only) (two full-time staff equivalents at GS-7 rate)	\$78,000	--	--	--	\$78,000	--	\$78,000	--
Mid-day closures of Beach Drive	--	--	--	--	--	--	\$33,000	--
Staff Lodge House, Peirce Mill complex, and nature center (six full-time staff equivalents at GS-7 rate)	\$227,000	--	--	--	\$227,000	--	\$227,000	--
Lease new District 3 substation space <sup>c/</sup>	\$423,000	--	--	--	\$423,000	--	\$423,000	--
Subtotal	\$880,000	\$12,707,000			\$880,000	\$12,767,000	\$913,000	\$12,767,000
Total	\$8,244,000	\$14,837,000	\$7,364,000	\$2,063,000	\$8,244,000	\$14,897,000	\$8,277,000	\$14,897,000

a/ All costs are in year 2004 dollars.

b/ Costs include 4,500 square feet of office space at a cost of \$33 per square foot per year.

c/ Costs include 10,000 square feet of office space at a cost of \$33 per square foot per year, plus 45 vehicle parking spaces (for cruisers, emergency vehicles, and visitor parking) at \$2,000 annually per vehicle space.

## **ALTERNATIVE B: CONTINUE CURRENT MANAGEMENT/NO ACTION**

*This section describes Alternative B, including the concept that defines the alternative, where the management prescriptions that would be included in this alternative would be applied, and the approximate costs.*

### **CONCEPT**

The goals of Alternative B would be to

- preserve traditional visitor experiences and activities

- maintain the park's natural, cultural, and scenic values in conformance with the provisions outlined in "Servicewide Mandates and Policies"

Rock Creek Park and the Rock Creek and Potomac Parkway would be maintained as they have evolved thus far. There would not be any major changes in resources management, visitor programs, or facilities beyond regular maintenance. The current park road system would be retained and existing management would continue.

Measures achieve the Alternative B goals are embodied in the management prescriptions presented below. These are shown on the Alternative B map and summarized in table 4.

### **MANAGEMENT PRESCRIPTIONS**

Management prescription zoning is shown in the Alternative B map. The management prescriptions were described previously.

#### **Forest Zone**

As in all alternatives, the Forest Zone would be applied to 79 percent of the park (2,331 acres). There would be no major change in the management of forested areas of the park from current management practices. Existing horse and foot trails would be retained and deteriorated segments would be rehabilitated to the extent practical. During these activities, each trail site would be evaluated to determine effects on safety and on cultural and natural resource values. Improvements would be designed to maximize the former while protecting the latter.

Bicycles would continue to be limited to roads, parking areas, and designated paved trails. Military Field and other meadows would be managed in a manner similar to that described in Alternative A, including protection of archeological resources.

#### **Cultural Resource Zone**

Under Alternative B, about 2 acres (less than 0.1 percent of the park) would continue to be managed primarily for cultural resource protection. Resources such as Fort DeRussy and the Godey Lime Kilns would be maintained in their current condition. Historic structures and resources at the Peirce-Klingbe Mansion would continue to be maintained, but the sites would be within the Administration/Operations Zone. The Peirce Mill complex would be in the Visitor Facility Zone.



### **Valley Floor Automobile Access Zone**

The Rock Creek valley would continue to accommodate through-traffic along the length of the park and parkway. The Valley Floor Automobile Access Zone (184 acres, 6 percent of the park) would be managed to preserve the valley's characteristic mix of forest, grassy openings, and floodplain terraces interspersed with rustic facilities. Management actions that could be taken within this zone include the following.

**Beach Drive.** The tradition of automobile travel along the length of Beach Drive would be maintained. Two-way traffic would continue during the week along the length of the road for non-commercial vehicles without limits on the number of vehicle occupants.

Segments of Beach Drive would continue to be closed to traffic on weekends and holidays. These include Broad Branch Road to Joyce Road, picnic grove 10 to Wise Road, and West Beach Drive to the Maryland border. Weekend closures of Sherrill and Bingham Drives, which are in the Park Road Zone, also would continue. Piney Branch Parkway would be open to two-way traffic at all times.

**Paved Recreational Trail.** The existing paved recreational trail paralleling Beach Drive would be retained along the current alignment. The paved trail would be maintained, including repairs and re-paving, but major changes in location, width, or alignment would not be undertaken.

### **Rock Creek and Potomac Parkway Zone**

The parkway corridor, which covers 161 acres (5 percent of the park) would continue to be managed for a mix of open fields and forest. This would provide both a pleasant aesthetic experience, and visual and sound buffers. The paved trail paralleling the parkway would be maintained, including repairs and re-paving, but major changes in location, width, or alignment would not be undertaken.

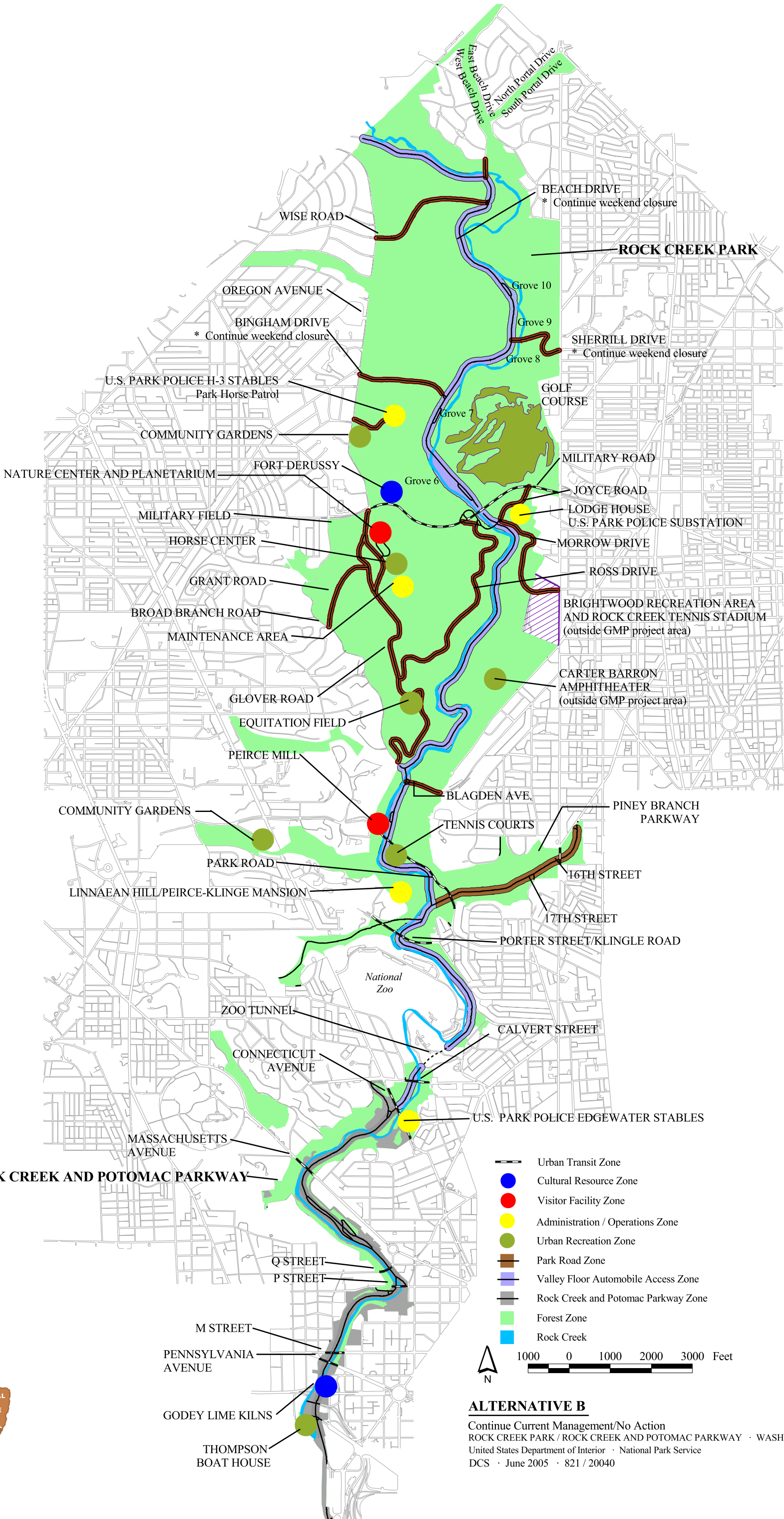
Parkway traffic would be managed as at present. Rush-hour lane reversals (one-way traffic) would continue on the parkway.

### **Park Road Zone**

Other park roads (74 acres, 2 percent of the park) would continue to be managed in their current alignments and widths to provide vehicular routes into and through the park. The existing infrastructure would be maintained, potentially with improvements such as better directional and information signs for visitor orientation.

Bingham Drive and Sherrill Drive would continue to be closed on weekends and holidays for nonmotorized recreation. Following snow storms, several roads in this zone could be closed to provide winter recreational opportunities such as sledding and skiing. These could include, but may not be limited to, Glover Road, Ross Drive, Bingham Drive, Sherrill Drive, and Morrow Drive.

ROCK CREEK AND POTOMAC PARKWAY



ALTERNATIVE B

Continue Current Management/No Action  
ROCK CREEK PARK / ROCK CREEK AND POTOMAC PARKWAY · WASHINGTON, DC  
United States Department of Interior · National Park Service  
DCS · June 2005 · 821 / 20040



### Visitor Facility Zone

Alternative B would continue to use the existing facilities for park introduction and information services. Under this alternative, the Visitor Facility Zone would occupy about 3 acres (0.1 percent of the park).

**Rock Creek Nature Center and Planetarium.** The nature center area would be maintained in its current configuration. The facility would continue to serve as the park's primary location for environmental education for school groups as well as an information, orientation, and interpretation center for other visitors.

**Peirce Mill Complex.** The Peirce Mill complex would continue to be managed primarily for visitor information and orientation, resources interpretation, and recreation.

The mill would be managed consistent with the recommendations of the draft historic structure report (Friends of Peirce Mill and Quinn Evans, Architects 2000). Peirce Mill would provide a historically accurate representation of a typical mill complex in the region. This would include working with the Friends of Peirce Mill to restore the milling machinery to a fully operable condition. However, because the mill race was relocated away from the site many years ago, it will not be possible to restore operation of the mill using water power.

The landscape of the complex would be rehabilitated to retain the historic character while allowing continued use.

Park interpretive staff in the mill would continue to provide park-wide information and orientation as well as generalized interpretation of milling.

The Peirce Barn would continue to be used as a visitor contact point with exhibits on the history of the Peirce estate and milling in the Rock Creek valley.

### Urban Recreation Zone

Most facilities and activities in the Urban Recreation Zone (200 acres, 7 percent of the park) would be retained at their current levels. These include the community gardens off Oregon Avenue and at Melvin Hazen Park, the Rock Creek Horse Center and equitation field, the Rock Creek Golf Course, the clay tennis courts near Peirce Mill, and the reserve picnic areas. The Brightwood Recreation Area and Rock Creek Tennis Stadium, which are outside the area covered by this general management plan, would continue to be managed as specified in the *Final Environmental Impact Statement, Tennis Stadium, Rock Creek Park, Washington, D.C.* (NPS 1995b). The Carter Barron Amphitheater would be repaired and rehabilitated.

### Administration/Operations Zone

Park administration and operations would continue in their present locations. This zone would occupy approximately 7 acres (0.2 percent of the park).

**Peirce-Klingling Mansion at Linnaean Hill.** The park administrative offices would continue to occupy the Peirce-Klingling Mansion at the Linnaean Hill site. The current level of preservation

would be maintained, and only minor interior modifications would be made in the future to avoid further affecting the historic character of the building. Future staff increases would need to be accommodated elsewhere in the park in existing facilities.

**Park Maintenance Area.** Maintenance shops, equipment and materials storage, parking, and maintenance staff office space would continue to be located at the maintenance area. Administrative staff offices that could not be accommodated at Peirce-Klingbe Mansion might also be located here. Consistent with the water resources requirements in the “Servicewide Mandates and Policies” section, best management practices would be implemented to reduce the risk of environmental contamination from operations and to correct drainage problems at the site.

**Lodge House.** The Lodge House would continue to serve as the U.S. Park Police District 3 substation. All current police functions, including office spaces, holding cell, parking, and motorcycle and bicycle storage, would remain in the existing building.

**H-3 Stables.** U.S. Park Police horse stables would be maintained at the site off Oregon Avenue. The community gardens near this site also would continue to be used by the public.

**Edgewater.** The U.S. Park Police regional stables and training arena at Edgewater would remain unchanged in its current facilities. Best management practices would be implemented to reduce the potential for bacteria runoff from the site.

### Urban Transit Zone

Existing rights-of-way in the park for non-NPS roads would be managed under the Urban Transit Zone (8 acres, 0.2 percent of the park). The National Park Service would continue to work with the District government to provide linkages to the surrounding city and to protect the historic character of road structures and scenic views in this zone.

### COSTS

Cost estimates for implementing Alternative B, including both one-time capital costs and annual costs for operations and maintenance, are presented in table 5. Capital costs would total approximately \$2.1 million. This money would be required to bring existing park features up to standards.

Annual costs would be \$7.4 million. This would include the \$6.3 million currently spent annually for park and parkway operations, plus additional funding of \$1.1 million to bring existing park operations up to existing NPS policy and regulatory requirements.

## ALTERNATIVE C: NONMOTORIZED RECREATION EMPHASIS

*This section describes Alternative C, including the concept that defines the alternative, where the management prescriptions that would be included in this alternative would be applied, and the approximate costs.*

### CONCEPT

The goals of Alternative C would be to

- manage northern portions of the park as an exclusion zone from urban automobile traffic and promote nonmotorized recreation throughout the week

- assert more control over nonrecreational use of park roads and improve visitor safety

- preserve most traditional visitor experiences and activities

- enhance natural, cultural, and scenic values in the park

- optimize the use of structures for purposes such as interpretation, visitor contact, and park administration

In this alternative, a portion of the northern part of the Rock Creek valley floor would be closed to automobile traffic at all times. The Alternative C map illustrates one possible closure configuration, which would close three segments of Beach Drive between the Maryland state line and Broad Branch Road. This configuration is the basis for the following Alternative C description and was evaluated. However, the actual closure configuration would be selected at a later time, and may be adjusted.

The objectives of closing the road along portions of the Rock Creek valley floor would be to manage this area as a quiet refuge from urban automobile traffic, promote nonmotorized recreation throughout the week, and enhance natural resource protection. This section of the park would become a destination for nonmotorized activities. Alternative C also would create a paved route available throughout the week with little interference from automobile traffic through the Rock Creek valley and connecting to the Potomac River, as envisioned in regional bicycle plans (NPS 1990c; Metropolitan Washington Council of Governments 1995).

The current weekend and holiday closures of Sherrill Drive and Bingham Drive would be continued to promote recreational bicycling and other nonmotorized recreation in the park.

South of Broad Branch Road, including the Rock Creek and Potomac Parkway, the valley would support through-traffic for automobile travel and controlled urban transit. However, within the park, traffic would be managed to reduce levels compared to levels that would occur if current management practices were continued (Alternative B). The intent would be to improve visitor safety, the quality of the recreational visitor's experience, and resource protection.

Most traditional recreational experiences currently associated with Rock Creek Park would continue. In addition, all visitor facilities would remain accessible. However, access by automobile during weekdays would not be permitted in areas of new road closures.

Better use of the park's cultural resources would be made in Alternative C. This could include moving some park functions out of historic buildings and converting those structures to visitor contact, education, and interpretation. Improvements to existing facilities would also be made.

Alternative C would improve the protection of the park's natural resources. For example, poorly designed sections of foot and horse trails would be rerouted and abandoned trail sections would be restored to natural conditions. During these activities, each trail site would be evaluated to determine effects on safety and on cultural and natural resource values. Improvements would be designed to maximize the former while protecting the latter. To improve protection of terrestrial wildlife, the National Park Service would identify the most frequent locations of roadkill and would implement measures to reduce mortality to wildlife from collisions with vehicles. Visitor orientation would be improved through such activities as installing additional signage.

Measures that could be taken to achieve the Alternative C goals and concept are embodied in the management prescriptions presented below. These are shown on the Alternative C map and summarized in table 4.

## **MANAGEMENT PRESCRIPTIONS**

Management prescription zoning is shown in the Alternative C map. The management prescriptions were described previously.

### **Forest Zone**

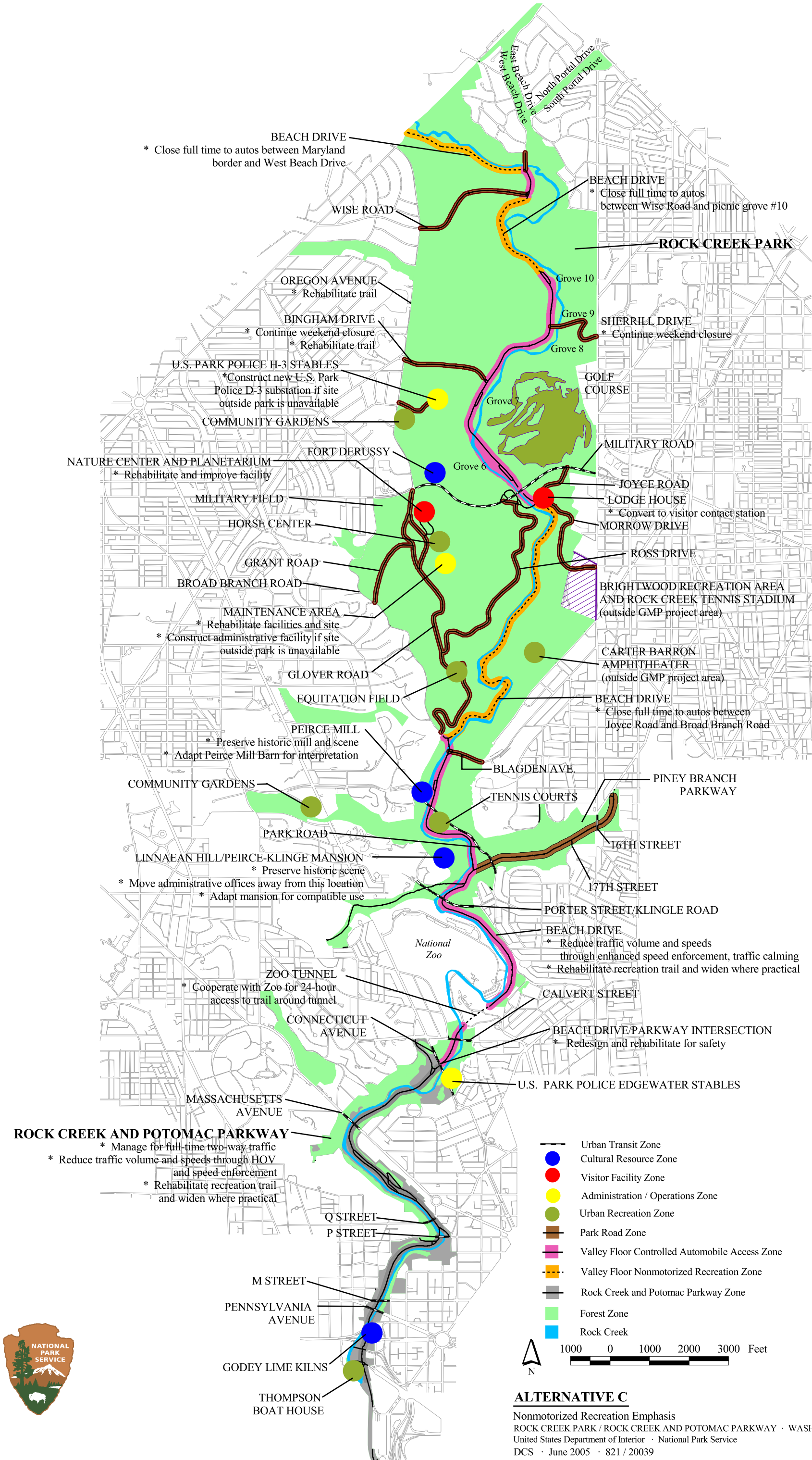
Under Alternative C, the Forest Zone would be applied to 79 percent of the park (2,331 acres). This zone's features and management would be similar to those described for Alternative A. An estimated 2.5 miles of paved trail would be rehabilitated under Alternative C. Military Field and other meadows would be managed in a manner similar to that described in Alternative A, including protection of archeological resources.

### **Cultural Resource Zone**

Alternative C would increase the area of the park primarily managed for protection of historic resources to about 6 acres (0.2 percent of the park). The types of actions that could be implemented at the various historic sites in the park would be identical to those described in Alternative A and could include the following:

The mill would be managed consistent with the recommendations of the historic structure report to provide a historically accurate representation of a typical mill complex in the region. This would expand on the already completed rehabilitation of the Peirce Barn, which serves as a visitor contact point with exhibits on the history of the Peirce estate and milling in the Rock Creek valley.









The park administrative offices would be moved out of the Peirce-Klingbe Mansion at the Linnaean Hill building complex and adaptive use of the buildings would be provided.

The landscapes of the Peirce Mill complex and the Linnaean Hill complex would be rehabilitated to retain their historic characters while allowing continued park use.

Other cultural features, including but not limited to Fort DeRussy, the Godey Lime Kiln, and the Miller cabin, would be maintained according to accepted NPS practices. Interpretive enhancements would be guided by future interpretive plans.

### **Valley Floor Nonmotorized Recreation Zone**

The Valley Floor Nonmotorized Recreation Zone would be applied to 2 percent of the park (50 acres). The portions of Beach Drive within this zone would be closed to motorized vehicles at all times. Lands within this zone would be managed as a corridor providing a variety of nonmotorized recreation throughout the week, such as walking, bicycling, in-line skating, and quiet contemplation. Sections of Beach Drive within this zone would extend from

the Maryland State line to West Beach Drive

Wise Road to picnic grove 10

Joyce Road to Broad Branch Road

A paved surface would be maintained on the sections of Beach Drive in this zone to support wheeled recreation. The width of pavement may be reduced to minimize impervious surfaces and maintenance costs. However, at least a 16-foot-wide paved surface would be maintained. The closed sections would be gated to allow for maintenance and emergency vehicle access.

Picnic groves 3 and 4 are close to the Boulder Bridge within the southernmost Beach Drive segment that would be closed. Visitors would continue to be allowed to drive automobiles slowly to these picnic groves, just as driving to these sites on weekends and holidays when the road is closed currently is allowed.

There is a broad, level, unpaved horse trail on the west side of Rock Creek that can be accessed from the roadside parking area near the Rapids Bridge. This trail segment, which would be within the southernmost closed section of Beach Drive, is unique in that it provides impaired mobility visitors with the opportunity to enjoy an unpaved trail experience. Alternative C would continue to allow visitors to drive slowly from Joyce Road to the Rapids Bridge parking area to gain access to this trail segment.

### **Valley Floor Controlled Automobile Access Zone**

The Valley Floor Controlled Automobile Access Zone (134 acres, 5 percent of the park) would continue to be managed to preserve the valley's characteristic mix of forest, grassy openings, and floodplain terraces interspersed with rustic facilities. Types of actions that could be taken within this zone include the following.

**Beach Drive.** In the northern portions of the park, sections of Beach Drive from West Beach Drive to Wise Road and from picnic grove 10 to Joyce Road would be open to automobile traffic. They would be managed to provide access to the recreational opportunities of the park and would accommodate cross-park traffic.

Picnic groves 6 through 10 would be between the northern and middle closed segments of Beach Drive. (Locations of these picnic groves are shown on the Existing Conditions map.) These picnic groves would continue to be accessible by visitors entering the park via Military Road, Bingham Drive, or Sherrill Drive.

Beach Drive south of Broad Branch Road would be managed for improved control of through-traffic volumes and speeds. The National Park Service would work with surrounding jurisdictions to reduce the volume of nonrecreational traffic through the park and to help mitigate traffic impacts on adjoining neighborhoods.

The following measures may be included as ways to reduce traffic speeds and the volume of non-recreational traffic on Beach Drive.

- Impose high-occupancy vehicle restrictions during rush hours on segments of Beach Drive that would not interfere with cross-park traffic. High-occupancy vehicle restrictions are consistent with regional transportation policies aimed at reducing reliance on single-occupant vehicles, reducing traffic congestion, improving air quality, and encouraging responsible commuting.

- Strengthen speed limit enforcement on Beach Drive.

- Implement traffic-calming measures to slow vehicle speeds. Such measures might include rumble strips, speed humps and speed tables, and intersection modifications such as all-way stops, traffic circles, reduced turning radii, and raised intersections.

Adjustments over time may be required to determine the best methods of controlling nonrecreational traffic volume and vehicle speeds. To support modeling and environmental assessment in the “Environmental Consequences” section, the following conditions were used as a reasonable scenario to characterize management of traffic on Beach Drive south of Broad Branch Road under Alternative C.

- Traffic-calming measures and improved enforcement would hold traffic speeds to the posted speed limit (25 miles per hour).

- Two-way traffic would be maintained.

- High-occupancy vehicle would be implemented directionally, in the southbound lane during morning rush hours and in the northbound lane in the evening.

- High-occupancy vehicle would be implemented from Porter Street / Klinge Road south to the parkway intersection near Connecticut Avenue. This would to reduce through-traffic volume south of Broad Branch Road, while allowing for cross-park traffic between Broad Branch Road and Porter Street / Klinge Road.

**Paved Recreational Trail.** An estimated 5.3 miles of trail within the Valley Floor Controlled Automobile Access Zone would be rehabilitated for visitor safety. This could include improving and realigning some sections of the existing recreational paralleling Beach Drive south of Broad Branch Road.

The continuous alignment connecting the sections of Beach Drive that was closed to automobiles and segments of the paved recreation trail down the valley would be designated as an official bicycle route.

**Reduction of Roadkill.** Within this zone, the National Park Service would improve monitoring of the frequencies and locations of animals killed or injured by collisions with vehicles. The mapping of roadkill sites would indicate locations where methods to reduce road mortality would be most effective. Techniques that could be implemented to reduce roadkill under Alternative C, either singly or in combination, may include public education about vehicle hazards to wildlife; warning signs, road striping, and speed humps and speed tables to reduce speeds and enhance driver alertness; and strategically placed underpasses (culverts) for small animals such as reptiles and amphibians.

**Improved Orientation Information.** Actions to provide improved visitor orientation would be similar to those described for Alternative A. Signage of a scale and height appropriate to pedestrians and bicyclists may be provided at each end of and at other locations along the closed segments of Beach Drive.

### **Rock Creek and Potomac Parkway Zone**

Rock Creek and Potomac Parkway Zone, which covers 161 acres (5 percent of the park) would continue to be managed for a landscape mix of fields and forest. This would provide both a pleasant aesthetic experience, and visual and sound buffers.

The paved recreational trail paralleling the parkway would be improved and realigned in segments. The goal would be to provide a safe pathway separated from the roadway. An estimated 2 miles of trails would be upgraded within the Rock Creek and Potomac Parkway Zone.

The measures that would be used to manage the parkway would include the following:

Rush-hour lane reversals would be ended and two-way traffic would be allowed at all times.

Traffic volume would be moderated by implementing high-occupancy vehicle restrictions during rush hours, southbound in the morning and northbound in the evening. This action would be taken in concert with high-occupancy vehicle restrictions on Beach Drive south of Broad Branch Road.

The intersection of the parkway with Beach Drive near Connecticut Avenue would be improved to increase safety for pedestrians, cyclists, and motorists. The intersection redesign would not increase traffic capacity or encourage increased speeds through the intersection. Improvements may require reconfiguration of existing roads, potentially including closure of Cathedral Avenue access.

Speed limit enforcement on the parkway would be strengthened as described above for the Valley Floor Controlled Automobile Access Zone. Actions to reduce wildlife roadkill also would be the same as those described for the Valley Floor Controlled Automobile Access Zone.

### **Park Road Zone**

The Park Road Zone would include 74 acres (2 percent of the park). The park road system would be managed to provide access to park resources and to improve linkages between the park and the surrounding neighborhoods. Park roads would not be widened to increase capacity for nonrecreational traffic.

Improvements could include rehabilitating or constructing recreational trails adjacent to roads to minimize pedestrian and vehicular conflicts and incorporating better directional and informational signs for visitor orientation. About 0.5 miles of trail along Bingham Drive would be upgraded within the Park Road Zone. Approximately 0.75 miles of trail would be added along Piney Branch Parkway to enhance access to Rock Creek Park by foot and bicycle. Up to a mile of new trail also may be provided. A feasibility study would be conducted to determine the optimal locations for new pedestrian trails.

Bingham Drive and Sherrill Drive would continue to be closed on weekends and holidays for nonmotorized recreation. Following snow storms, several roads in this zone could be closed to provide winter recreational opportunities such as sledding and skiing. These could include, but may not be limited to, Glover Road, Ross Drive, Bingham Drive, Sherrill Drive, and Morrow Drive.

Speed limit enforcement on park roads would be strengthened as described above for the Valley Floor Controlled Automobile Access Zone. Actions to reduce wildlife roadkill and improve visitor orientation also would be the same as those described for the Valley Floor Controlled Automobile Access Zone.

### **Visitor Facility Zone**

Alternative C would improve park interpretive, educational, and information services. Under this alternative, the Visitor Facility Zone would occupy about 1 acre (less than 0.1 percent of the park). Potential actions that could be implemented to improve visitor services would be identical to those described for Alternative A and could include

- converting the Lodge House to a visitor contact station

- upgrading the Rock Creek Nature Center and Planetarium

### **Urban Recreation Zone**

Most facilities and activities in the Urban Recreation Zone (200 acres, 7 percent of the park) would be retained at their current levels. These include the community gardens off Oregon Avenue and at Melvin Hazen Park, the Rock Creek Horse Center and equitation field, the Rock Creek Golf Course, the clay tennis courts near Peirce Mill, and the reserve picnic areas. The Brightwood Recreation Area and Rock Creek Tennis Stadium, which are outside the area covered by this general management plan, would continue to be managed as specified in the *Final Environmental*

*Impact Statement, Tennis Stadium, Rock Creek Park, Washington, D.C.* (NPS 1995b). The Carter Barron Amphitheater would be repaired and rehabilitated.

### **Administration/Operations Zone**

Alternative C would address the problems associated with park administrative facilities in a manner similar to that described in Alternative A. This could include

- relocating the park's administrative offices to commercial space outside the park or to a new facility located at, for evaluation purposes, the park maintenance area

- relocating the District 3 U.S. Park Police substation to commercial space outside the park, or to a new facility located at, for evaluation purposes, the H-3 site

- improving the use of the park maintenance area

- implementing best management practices at Edgewater to reduce the potential for bacteria-laden wastes from manure to enter the surface water system

The area within the Administration/Operations Zone would occupy approximately 5 acres (0.1 percent of the park). The measures that were described in Alternative A to protect and enhance the park's natural and cultural resources also would be applied in Alternative C.

### **Urban Transit Zone**

Existing rights-of-way in the park for non-NPS roads would be classified under the Urban Transit Zone (8 acres, 0.2 percent of the park). The National Park Service would continue to work with the District government to provide linkages to the surrounding city and to protect the historic character of road structures and scenic views in this zone. Actions in this zone might also include the improved visitor orientation measures described for the Valley Floor Controlled Automobile Access Zone.

### **Summary of Trail Improvements**

Alternative C would include the same trail improvements, including preparation of a trail plan with accompanying National Environmental Policy Act documentation, that were described for Alternative A. However, it would differ from Alternative A by incorporating the three closed segments of Beach Drive into trail planning activities.

### **COSTS**

Cost estimates for implementing Alternative C, including one-time capital costs and annual costs for operations and maintenance, are presented in table 5. Capital costs would total approximately \$14.9 million.

- About 63 percent of the capital costs (\$9.4 million) would be used to rehabilitate and improve the Rock Creek Nature Center and Planetarium, convert the Lodge House to a visitor contact station, and restore the historic Peirce Mill area.

## ALTERNATIVES

Approximately \$2.1 million of the capital costs (14 percent) would be required to bring existing park features up to existing NPS policy and regulatory requirements.

Another \$2.3 million in capital costs (16 percent) would fund proposed trail improvements.

About \$1.1 million (7 percent) would pay for safety improvements at the intersection of the parkway and Beach Drive, and for traffic-calming devices on Beach Drive.

An estimated \$60,000 would be required to install permanent gates at six locations on Beach Drive to implement the road closures.

Annual costs would be \$8.2 million, about \$880,000 more than the annual costs for Alternative B.

The largest part of the new costs (48 percent) would be used to lease commercial space outside the park for the new District 3 substation.

Thirty-five percent of the increased operations costs would fund eight new full-time-equivalent staff positions, including two staff positions for high-occupancy, speed, and other traffic enforcement, and six positions to improve visitor contact, education, and interpretation, primarily at the Lodge House, Peirce Mill complex, and Rock Creek Nature Center and Planetarium.

Seventeen percent would be used to lease administrative space for park headquarters outside the park.

## ALTERNATIVE D: MID-WEEKDAY RECREATION ENHANCEMENT

*This section describes Alternative D, including the concept that defines the alternative, where the management prescriptions that would be included in this alternative would be applied, and the approximate costs.*

### CONCEPT

As stated in the January 2001 letter sent from the Mayor of the District of Columbia to the National Park Service (see appendix D), the traffic management goals of Alternative D would be to “reduc[e] automobile traffic in the most sensitive portions of Rock Creek Park, while minimizing any impact on surrounding neighborhoods and commuters.” This would be accomplished by “implementing weekday vehicular traffic restrictions on sections of upper Beach Drive in non-rush-hour periods.” In addition, goals of this alternative would include

- preserving traditional visitor experiences and activities

- enhancing natural, cultural, and scenic values in the park

- asserting control over nonrecreational use of park roads and improving visitor safety and quality of the experience for visitors participating in nonmotorized recreation

- optimizing the use of structures for purposes such as interpretation, visitor contact, and park administration

In accordance with the mayor’s request, the concept for Alternative D would involve closing selected park road segments to motorized vehicles on weekdays between the morning and evening rush hours. These closures would enhance recreation opportunities for pedestrians and cyclists. Because mid-weekday motorized traffic typically is light, few drivers would alter their use patterns and little traffic would be forced into surrounding neighborhoods.

Weekend and holiday closures under Alternative D would be the same as Alternative B, Continue Current Management/No Action. The road closure actions of Alternative D that are described below would be applied on weekdays.

The Alternative D map illustrates one possible closure configuration, which would close three segments of Beach Drive between the Maryland state line and Broad Branch Road. This configuration was evaluated in the environmental impact statement. However, the actual closure configuration may be adjusted. As shown in the map, Alternative D would close three segments of Beach Drive to motorized traffic during the middle part of weekdays, as follows:

- The Maryland border to West Beach Drive

- Wise Road to picnic grove 10

- Joyce Road to Broad Branch Road

These are the same three segments that currently are closed to motor vehicles on weekends.



Alternative D would not include the weekday closure of Sherrill Drive or Bingham Drive, but would continue their closure on weekends. Keeping these roads open would minimize weekday effects on cross-park traffic.

Consistent with current management practices, Alternative D would not include any requirements for high vehicle occupancy in any part of the park or parkway. This alternative also would continue current rush-hour lane reversals (one-way traffic) on the Rock Creek and Potomac Parkway.

On weekdays, the road segments would be closed to motorized vehicles at 9:30 A.M. They would be re-opened at 3:30 P.M. to accommodate evening commuter traffic. This approach conforms with the mayor's request to consider "weekday vehicular traffic restrictions . . . in non-rush-hour periods."

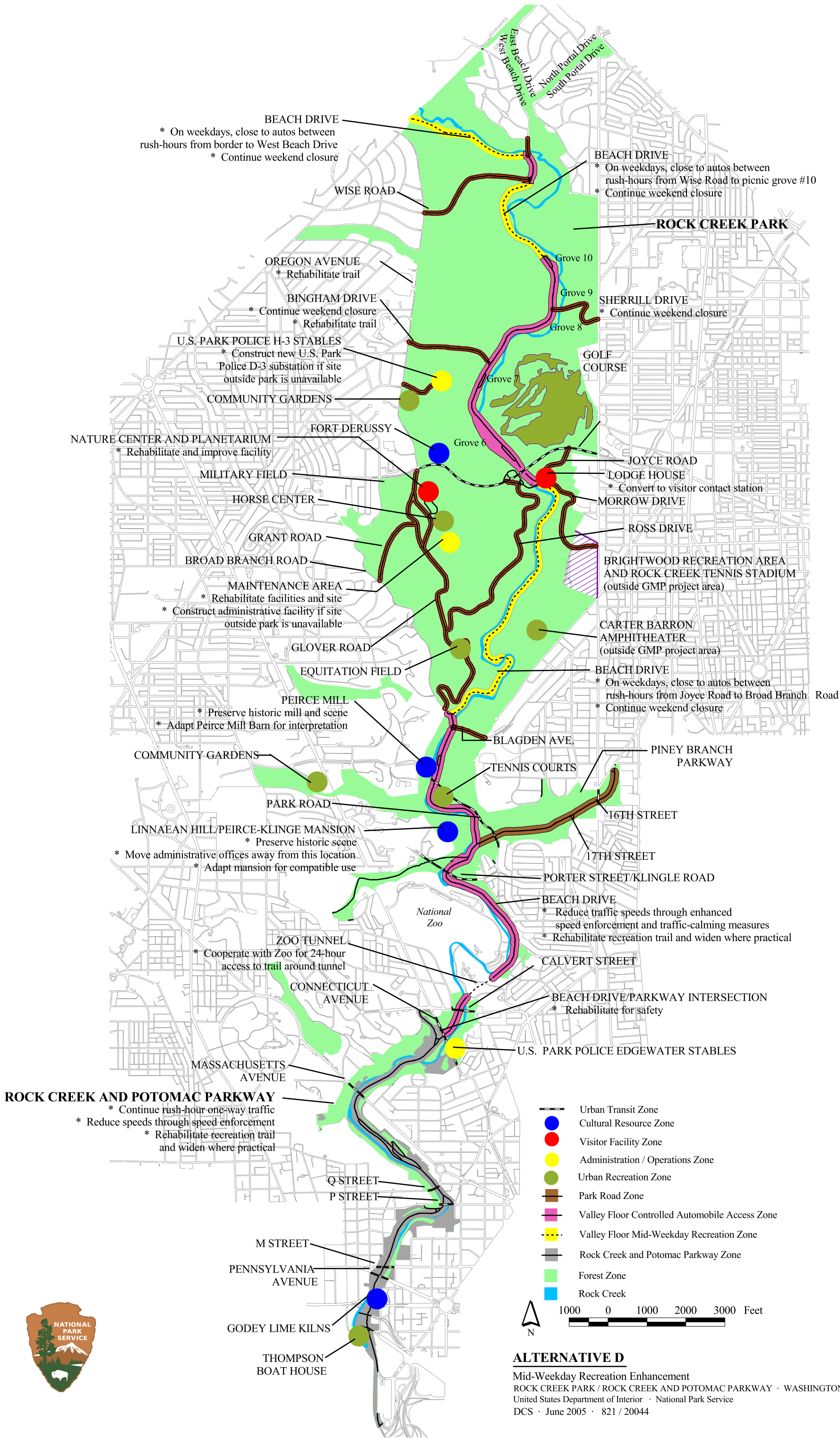
During development of Alternative D, other possible strategies for closing Beach Drive during non-rush-hour periods were considered. Descriptions of these approaches and reasons why they were not incorporated into this or any other alternative are included in the "Other Traffic-Related Actions" discussion of the "Alternatives or Actions Eliminated from Further Study" section.

During weekdays from 3:30 P.M. to 9:30 A.M., the valley would support through-traffic, including commuter traffic. However, many of the traffic management measures described for Alternative A would be implemented to reduce speeds compared to speeds that would occur if current management practices were continued (Alternative B). The intent would be to improve visitor safety, the quality of the visitor's experience, and resource protection.

For these 18 hours each weekday, Alternative D would maintain driving for pleasure along the length of Beach Drive as an allowed activity. In the establishing legislation, the park managers were directed to provide "roadways . . . to be used for driving." Commuters could continue to enjoy the slower pace and scenery afforded by their morning and evening drive through the park. In addition, visitors with limited mobility would continue to have vehicular access throughout the park during popular periods such as weekday evenings.

For 6 hours during the middle of each weekday, Alternative D would create a paved trail through the Rock Creek valley and connecting to the Potomac River, as envisioned in regional bicycle plans (NPS 1990c; Metropolitan Washington Council of Governments 1995). During this time, the Rock Creek valley floor north of Broad Branch Road would be managed as a quiet refuge from urban automobile traffic. Nonmotorized recreation would be encouraged, and the increased safety may lead to increases in bicycle and pedestrian use within the park.

All traditional recreational experiences currently associated with Rock Creek Park would continue. In addition, all visitor facilities would remain accessible by automobile. However, access by automobile during the middle part of each weekday would not be permitted in areas of new road closures.





Compared to Alternative B, Continue Current Management/No Action, Alternative D would make better use of the park's cultural resources, implementing the same measures proposed for Alternative A. This would include moving some park functions out of historic buildings and converting those structures to visitor contact, education, and interpretation. Improvements to existing facilities also would be made.

Alternative D would improve the protection of the park's natural resources. For example, poorly designed sections of foot and horse trails would be rerouted and abandoned trail sections would be restored to natural conditions. During these activities, each trail site would be evaluated to determine effects on safety and on cultural and natural resource values. Improvements would be designed to maximize the former while protecting the latter. To improve protection of wildlife, the National Park Service would identify the most frequent locations of roadkill and would implement measures to reduce mortality to wildlife from collisions with vehicles. Visitor orientation would be improved through such activities as installing additional signage.

Measures that could be taken to achieve the Alternative D goals and concept are embodied in the management prescriptions presented below. These are shown on the Alternative D map and summarized in table 4.

## **MANAGEMENT PRESCRIPTIONS**

Management prescription zoning is shown in the Alternative D map. The management prescriptions were described previously.

### **Forest Zone**

Under Alternative D the Forest Zone would be applied to 79 percent of the park (2,331 acres). This zone's features and management would be similar to those described for Alternative A. An estimated 2.5 miles of paved trail would be rehabilitated under Alternative D. Military Field and other meadows would be managed in a manner similar to that described in Alternative A, including protection of archeological resources.

### **Cultural Resource Zone**

Alternative D would increase the area of the park primarily managed for protection of historic resources to about 6 acres (0.2 percent of the park). The types of actions that could be implemented at the various historic sites in the park would be identical to those described in Alternative A and could include the following. The mill would be managed consistent with the recommendations of the historic structure report to provide a historically accurate representation of a typical mill complex in the region. This would expand on the already completed rehabilitation of the Peirce Barn, which serves as a visitor contact point with exhibits on the history of the Peirce estate and milling in the Rock Creek valley.

The park administrative offices would be moved out of the Peirce-Klingel Mansion at the Linnaean Hill building complex and adaptive use of the buildings would be provided.

The landscapes of the Peirce Mill complex and the Linnaean Hill complex would be rehabilitated to retain their historic characters while allowing continued park use.

Other cultural features, including but not limited to Fort DeRussy, the Godey Lime Kiln, and the Miller cabin, would be maintained according to accepted NPS practices. Interpretive enhancements would be guided by future interpretive plans.

### **Valley Floor Controlled Automobile Access Zone**

The Valley Floor Controlled Automobile Access Zone (134 acres, 5 percent of the park) would continue to be managed to preserve the valley's characteristic mix of forest, grassy openings, and floodplain terraces interspersed with rustic facilities. Types of actions that could be taken within this zone include the following.

**Beach Drive.** In the northern portions of the park, sections of Beach Drive from West Beach Drive to Wise Road and from picnic grove 10 to Joyce Road would remain open to automobile traffic at all times. They would be managed to provide access to the recreational opportunities of the park and would accommodate cross-park traffic.

Except during weekend and mid-weekday closure periods, the tradition of automobile travel along the length of Beach Drive would be maintained. Whenever Beach Drive was open to motorized vehicles, it would be managed for improved control of through-traffic volumes and speeds. The National Park Service would work with surrounding jurisdictions to reduce the volume of nonrecreational traffic through the park and to help mitigate traffic impacts on adjoining neighborhoods.

Alternative D would incorporate the same types of traffic management actions that were described for Alternative A. These could include

- improved speed limit enforcement on Beach Drive

- traffic-calming measures, such as speed tables, and intersection modifications such as all-way stops, traffic circles, reduced turning radii, and raised intersections, to slow vehicle speeds

Adjustments over time may be required to determine the best methods of controlling nonrecreational traffic volume and vehicle speeds. To support modeling and environmental assessment in the "Environmental Consequences" section, the following conditions were used as a reasonable scenario to characterize management of traffic on Beach Drive south of Broad Branch Road under Alternative D.

- Traffic-calming measures and improved enforcement would hold traffic speeds to the posted speed limit (25 miles per hour).

- Two-way traffic would be maintained.

**Paved Recreational Trail.** An estimated 5.3 miles of trail within the Valley Floor Controlled Automobile Access Zone would be rehabilitated for visitor safety. This could include improving and realigning some sections of the existing recreational trail paralleling Beach Drive south of Broad Branch Road.

**Reduction of Roadkill.** Within this zone, the National Park Service would improve monitoring of the frequencies and locations of animals killed or injured by collisions with vehicles. The map-

ping of roadkill sites would indicate locations where methods to reduce road mortality would be most effective. Techniques that could be implemented to reduce roadkill under Alternative D, either singly or in combination, may include public education about vehicle hazards to wildlife; warning signs, road striping, and speed humps and speed tables to reduce speeds and enhance driver alertness; and strategically placed underpasses (culverts) for small animals such as reptiles and amphibians.

**Improved Orientation Information.** Actions to provide improved visitor orientation would be similar to those described for Alternative A. Additional signage of a scale and height appropriate to pedestrians and bicyclists may be provided along Beach Drive, similar to Alternative C.

### **Valley Floor Mid-Weekday Recreation Zone**

The Valley Floor Mid-Weekday Recreation Zone would be applied to 2 percent of the park (50 acres). On weekdays, the portions of Beach Drive within this zone would be closed to motorized vehicles from 9:30 A.M. to 3:30 P.M. During this period, lands within this zone would be managed as a corridor providing nonmotorized recreation, such as walking, bicycling, in-line skating, and quiet contemplation. At all other times, its management would be identical to that of the Valley Floor Controlled Automobile Access Zone.

Picnic groves 6 through 10 would be between the northern and middle closed segments of Beach Drive. (Locations of these picnic groves are shown on the Existing Conditions map.) These picnic groves would continue to be accessible during the mid-day closure period by visitors entering the park via Military Road, Bingham Drive, or Sherrill Drive.

Developed park facilities within this zone include picnic groves 3 and 4, which are close to the Boulder Bridge. Visitors would continue to be allowed to drive automobiles slowly to these picnic groves, just as driving to these sites on weekends and holidays when the road is closed currently is allowed. As described in Alternative C, visitors also would be allowed to drive slowly to the roadside parking area near the Rapids Bridge, which provides access to a nearby horse trail that gives visitors with impaired mobility the opportunity to enjoy an unpaired trail experience.

### **Rock Creek and Potomac Parkway Zone**

Rock Creek and Potomac Parkway Zone, which covers 161 acres (5 percent of the park) would continue to be managed for a landscape mix of fields and forest. This would provide both a pleasant aesthetic experience, and visual and sound buffers.

The recreational trail paralleling the parkway would be improved and realigned in segments. The goal would be to provide a safe pathway separated from the roadway. An estimated 2 miles of trails would be upgraded within the Rock Creek and Potomac Parkway Zone.

Rush-hour lane reversals (one-way traffic) would continue on the parkway.

The intersection of the parkway with Beach Drive near Connecticut Avenue would be improved to increase safety for pedestrians, cyclists, and motorists. The intersection redesign would not increase traffic capacity or encourage increased speeds through the intersection. Improvements may require reconfiguration of existing roads, potentially including closure of Cathedral Avenue access.

Speed limit enforcement on the parkway would be strengthened as described above for the Valley Floor Controlled Automobile Access Zone. Actions to reduce wildlife roadkill also would be the same as those described for the Valley Floor Controlled Automobile Access Zone.

### **Park Road Zone**

Other park roads (74 acres, 2 percent of the park) would continue to be managed to provide vehicular routes into and through the park. However, park roads would not be widened to increase capacity for nonrecreational traffic. The management emphasis would be on improving linkages between the park and the surrounding neighborhoods, and ensuring that park road management would provide for cross-park traffic.

Improvements could include rehabilitating or constructing recreational trails adjacent to roads to minimize pedestrian and vehicular conflicts and incorporating better directional and information signs for visitor orientation. About 0.5 miles of trail along Bingham Drive would be upgraded within the Park Road Zone. Approximately 0.75 miles of trail would be added along Piney Branch Parkway to enhance access to Rock Creek Park by foot and bicycle. Up to a mile of new trail also may be provided. A feasibility study would be conducted to determine the optimal locations for new pedestrian trails.

Bingham Drive and Sherrill Drive would continue to be closed on weekends and holidays for nonmotorized recreation. However, they would remain open throughout weekdays and would not be subject to the mid-weekday closures that would characterize roads in the Valley Floor Mid-Weekday Recreation Zone.

Following snow storms, several roads in this zone could be closed to provide winter recreational opportunities such as sledding and skiing. These could include, but may not be limited to, Glover Road, Ross Drive, Bingham Drive, Sherrill Drive, and Morrow Drive.

Speed limit enforcement on park roads would be strengthened as described above for the Valley Floor Controlled Automobile Access Zone. Actions to reduce wildlife roadkill and improve visitor orientation also would be the same as those described for the Valley Floor Controlled Automobile Access Zone.

### **Visitor Facility Zone**

Alternative D would improve park interpretive, educational, and information services. Under this alternative, the Visitor Facility Zone would occupy about 1 acre (less than 0.1 percent of the park). Potential actions that could be implemented to improve visitor services would be identical to those described for Alternative A and could include

- converting the Lodge House to a visitor contact station

- upgrading the Rock Creek Nature Center and Planetarium

### **Urban Recreation Zone**

Most facilities and activities in the Urban Recreation Zone (200 acres, 7 percent of the park) would be retained at their current levels. These include the community gardens off Oregon Ave-

nue and at Melvin Hazen Park, the Rock Creek Horse Center and equitation field, the Rock Creek Golf Course, the clay tennis courts near Peirce Mill, and the reserve picnic areas. The Brightwood Recreation Area and Rock Creek Tennis Stadium, which are outside the area covered by this general management plan, would continue to be managed as specified in the *Final Environmental Impact Statement, Tennis Stadium, Rock Creek Park, Washington, D.C.* (NPS 1995). The Carter Barron Amphitheater would be repaired and rehabilitated.

### **Administration/Operations Zone**

Alternative D would address the problems associated with park administrative facilities in a manner similar to that described in Alternative A. This could include

- relocating the park's administrative offices to commercial space outside the park, or to a new facility located at, for evaluation purposes, the park maintenance area

- relocating the District 3 U.S. Park Police substation to commercial space outside the park, or to a new facility located at, for evaluation purposes, the H-3 site

- improving the use of the park maintenance area

- implementing best management practices at Edgewater to reduce the potential for bacteria-laden wastes from manure to enter the surface water system

The area within the Administration/Operations Zone would occupy approximately 5 acres (0.1 percent of the park). The measures that were described in Alternative A to protect and enhance the park's natural and cultural resources also would be applied in Alternative D.

### **Urban Transit Zone**

Existing rights-of-way in the park for non-NPS roads would be classified under the Urban Transit Zone (8 acres, 0.2 percent of the park). The National Park Service would continue to work with the District government to provide linkages to the surrounding city and to protect the historic character of road structures and scenic views in this zone. Actions in this zone might also include the improved visitor orientation measures described for the Valley Floor Controlled Automobile Access Zone.

### **Summary of Trail Improvements**

Alternative D would include the same trail improvements, including preparation of a trail plan with accompanying National Environmental Policy Act documentation, that were described for Alternative A.

### **COSTS**

Cost estimates for implementing Alternative D, including both one-time capital costs and annual costs for operations and maintenance, are presented in table 5. Capital costs would total approximately \$14.9 million.



## ALTERNATIVES

About 63 percent of the capital costs (\$9.4 million) would be used to rehabilitate and improve the Rock Creek Nature Center and Planetarium, convert the Lodge House to a visitor contact station, and restore the historic Peirce Mill area.

Approximately \$2.1 million of the capital costs (14 percent) would be required to bring existing park features up to existing NPS policy and regulatory requirements.

Another \$2.3 million in capital costs (16 percent) would fund proposed trail improvements.

About \$1.1 million (7 percent) would pay for safety improvements at the intersection of the parkway and Beach Drive, and for traffic-calming devices on Beach Drive.

An estimated \$60,000 would be required to install gates at six locations on Beach Drive to implement the mid-day road closures.

Annual costs would be almost \$8.3 million, about \$913,000 more than the annual costs for Alternative B.

The largest part of the new costs (46 percent) would be used to lease commercial space outside the park for the new District 3 substation.

Approximately 34 percent of the increased operations costs would fund eight new full-time-equivalent staff positions, including two staff positions for speed and other traffic enforcement, and six positions to improve visitor contact, education, and interpretation, primarily at the Lodge House, Peirce Mill complex, and Rock Creek Nature Center and Planetarium.

Sixteen percent would be used to lease administrative space for park headquarters outside the park.

Mid-day closures of the three segments of Beach Drive would cost about \$33,000 (4 percent of the cost difference from Alternative B) annually to implement.

## **SUMMARY OF ALTERNATIVES**

All of the action alternatives meet the overall objective of the National Park Service of preserving unimpaired the natural and cultural resources and values of Rock Creek Park and the Rock Creek and Potomac Parkway for future generations. In addition, all three action alternatives satisfy all of the purposes of the general management plan that were defined at the beginning of this document. The alternative of continue current management/no action does not fulfill any of these goals.

Table 4 summarized the area within each management prescription under each alternative. As shown in the table, five of the zones would be the same size in all of the alternatives. These include the Forest Zone, Rock Creek and Potomac Parkway Zone, Park Road Zone, Urban Recreation Zone, and Urban Transit Zone.

Table 6 summarizes the key differences among the alternatives. In all areas, Alternative B, the no action alternative, would continue current management practices. Differences of the other three alternatives with current management practices are highlighted below.

Alternative A would continue weekday automobile travel throughout the park, but would implement measures to reduce vehicle speeds and traffic volumes, which would enhance nonmotorized recreation activities.

Alternative C would permanently close selected segments of Beach Drive north of Broad Branch Road to automobiles and would promote nonmotorized recreation in this area. Other park roads would be managed to encourage slower speeds and reduce the number of nonrecreational vehicles.

On the Rock Creek and Potomac Parkway, Alternative C would end lane reversals and allow two-way traffic at all times. This alternative would implement high-occupancy vehicle restrictions during rush hours in the primary travel direction of the traffic.

During the middle part of each weekday, Alternative D would close portions of Beach Drive north of Broad Branch Road to motorized vehicles. It would continue automobile travel throughout the park at all other times on weekdays. Traffic-calming measures would reduce speeds and volumes.

Recreation trails would be upgraded under Alternatives A, C, and D.

Alternatives A, C, and D would increase the use of park historic resources for interpretive and educational purposes. This would include using Peirce Mill to provide a historically accurate representation of a typical mill complex in the region. These alternatives also would move the park administrative offices out of the Peirce-Klingbein Mansion at the Linnaean Hill building complex and provide adaptive use of the buildings.

Alternatives A, C, and D would improve park introduction and information services by such measures as converting the Lodge House to a visitor contact station and upgrading the Rock Creek Nature Center and Planetarium. Improved signage at park entrances and popular use areas would enhance visitor orientation.

## ALTERNATIVES

Alternatives A, C, and D would address the problems of insufficient space within historic buildings for park administration offices and the District 3 U.S. Park Police substation by moving these functions to other locations. For both functions, the preferred approach would be to use commercial space outside the park. If commercial space could not be secured, these functions would be relocated to sites within the park, such as the maintenance yard and/or H-3 area, only after completing a siting study. These alternatives also would improve the use of the park maintenance area. All of these actions would be designed and implemented to protect wildlife habitat.

Table 7 summarizes the impacts of the alternatives. Detailed information on the impacts evaluation is provided in the “Environmental Consequences” section.

**TABLE 6: SUMMARY OF KEY DIFFERENCES AMONG THE ALTERNATIVES**

<b>Park Feature</b>	<b>Alternative A: Improved Management of Established Park Uses</b>	<b>Alternative B: Continue Current Management/No Action</b>	<b>Alternative C: Nonmotorized Recreation Emphasis</b>	<b>Alternative D: Mid-Weekday Recreation Enhancement</b>
Traffic Management				
Beach Drive	<p>Include in the Valley Floor Controlled Automobile Access Zone.</p> <p>Continue weekend closures of sections of this road.</p> <p>Allow automobile travel along the length of Beach Drive on weekdays, but at reduced speeds.</p>	<p>Include in the Valley Floor Automobile Access Zone.</p> <p>Continue weekend closures of sections of this road.</p> <p>Allow automobile travel along the length of Beach Drive on weekdays using current management techniques.</p>	<p>Include northern portions in the Valley Floor Nonmotorized Recreation Zone. Permanently close this zone to motorized vehicles and manage for nonmotorized recreation.</p> <p>Include the remainder in the Valley Floor Controlled Automobile Access Zone. Allow automobile travel, but encourage slower speeds and fewer nonrecreational vehicles.</p>	<p>Include northern portions in the Valley Floor Mid-Weekday Recreation Zone.</p> <p>Between rush hours on weekdays, close this zone to motorized vehicles and manage for nonmotorized recreation.</p> <p>Except during mid-weekday closures, allow automobile travel along the length of Beach Drive on weekdays, but encourage slower speeds.</p> <p>Continue weekend closures of sections of this road.</p>
Rock Creek and Potomac Parkway	<p>Continue rush-hour lane reversals.</p> <p>Upgrade the recreational trail.</p> <p>Improve the intersection of the parkway with Beach Drive near Connecticut Avenue.</p>	<p>Continue current traffic management policies.</p> <p>Provide maintenance as needed.</p>	<p>End lane reversals and allow two-way traffic at all times.</p> <p>Implement HOV restrictions in the primary direction of travel during rush hours.</p> <p>Upgrade the recreational trail.</p> <p>Improve the intersection of the parkway with Beach Drive near Connecticut Avenue.</p>	<p>Same as Alternative A.</p>

**TABLE 6: SUMMARY OF KEY DIFFERENCES AMONG THE ALTERNATIVES (Continued)**

<b>Park Feature</b>	<b>Alternative A: Improved Management of Established Park Uses</b>	<b>Alternative B: Continue Current Management/No Action</b>	<b>Alternative C: Nonmotorized Recreation Emphasis</b>	<b>Alternative D: Mid-Weekday Recreation Enhancement</b>
Other park roads	Rehabilitate or construct recreational trails adjacent to roads.	Continue current management practices.	Same as Alternative A.	Same as Alternative A.
Recreational trails	Upgrade about 10 miles of trails and construct up to 1.75 miles of new trails.	Maintain trails and provide rehabilitation of deteriorated trail segments.	Same as Alternative A.	Same as Alternative A.
Interpretation and Education				
Peirce Mill complex	Include in the Cultural Resource Zone.  Rehabilitate the mill to focus on history of milling and land use in the Rock Creek area. Rehabilitate the landscape of the complex to retain the historic character.	Include in the Visitor Facility Zone.  Rehabilitate the mill to focus on history of milling and land use in the Rock Creek area.	Same as Alternative A.	Same as Alternative A.
Peirce-Kingle Mansion and the Linnaean Hill building complex	Include in the Cultural Resource Zone.  Rehabilitate the buildings for adaptive use compatible with park resource values.	Include in the Administration/Operations Zone.  Continue to use for park administrative offices.	Same as Alternative A.	Same as Alternative A.
Lodge House	Move the U.S. Park Police District 3 substation out of the structure.  Include in the Visitor Facility Zone.  Convert to a visitor contact station to provide park orientation, information, and interpretation.	Include in the Administration/Operations Zone.  Continue to use for U.S. Park Police District 3 substation.	Same as Alternative A.	Same as Alternative A.

**TABLE 6: SUMMARY OF KEY DIFFERENCES AMONG THE ALTERNATIVES (Continued)**

<b>Park Feature</b>	<b>Alternative A: Improved Management of Established Park Uses</b>	<b>Alternative B: Continue Current Management/No Action</b>	<b>Alternative C: Nonmotorized Recreation Emphasis</b>	<b>Alternative D: Mid-Weekday Recreation Enhancement</b>
Rock Creek Nature Center and Planetarium	Rehabilitate the nature center and expand to improve effectiveness of public programs.  Upgrade the planetarium.	Maintain current configuration.	Same as Alternative A.	Same as Alternative A.
Administration and Operations				
Administrative offices	Move out of the Peirce-Klingler Mansion. Relocate preferably to commercial office space outside the park, or to new or remodeled space constructed in the park, such as at the maintenance yard.	Continue to use current space in the Peirce-Klingler Mansion.	Same as Alternative A.	Same as Alternative A.
U.S. Park Police District 3 substation	Move out of the Lodge House. Relocate preferably to commercial space outside the park or to new space constructed in the park, such as at the H-3 area.	Continue to use current space in the Lodge House.	Same as Alternative A.	Same as Alternative A.
H-3 area	Construct a new park police substation only if selected by a siting study conducted if suitable commercial space cannot be obtained outside the park.	Continue current uses.	Same as Alternative A.	Same as Alternative A.

**TABLE 6: SUMMARY OF KEY DIFFERENCES AMONG THE ALTERNATIVES (Continued)**

<b>Park Feature</b>	<b>Alternative A: Improved Management of Established Park Uses</b>	<b>Alternative B: Continue Current Management/No Action</b>	<b>Alternative C: Nonmotorized Recreation Emphasis</b>	<b>Alternative D: Mid-Weekday Recreation Enhancement</b>
Maintenance yard	Rehabilitate the area.  Construct new office facilities only if selected by a siting study conducted if suitable commercial space cannot be obtained outside the park.	Continue current uses.  Relocate some administrative staff to existing facilities at this site.	Same as Alternative A.	Same as Alternative A.
Approximate cost <sup>a/</sup>				
Capital cost (one time)	\$14,837,000	\$2,130,000	\$14,897,000	\$14,897,000
Annual operating cost	\$8,244,000	\$7,364,000	\$8,244,000	\$8,277,000

a/ Details regarding costs are provided in Table 5.

**TABLE 7: SUMMARY OF IMPACTS OF THE ALTERNATIVES**  
(Detailed information on the impacts evaluation is provided in the “Environmental Consequences” section.)

<b>Impact Topic</b>	<b>Alternative A: Improved Management of Established Park Uses</b>	<b>Alternative B: Continue Current Management/No Action</b>	<b>Alternative C: Nonmotorized Recreation Emphasis</b>	<b>Alternative D: Mid-Weekday Recreation Enhancement</b>
Air quality	<p>Little effect on air quality because traffic patterns would not change from Alternative B and traffic would remain in the airshed.</p> <p>Carbon monoxide levels would be below National Ambient Air Quality Standard.</p> <p>The airshed’s ozone status would not be affected.</p> <p>Best management practices would ensure that effects from construction would be negligible.</p> <p>No impairment of air quality resources.</p>	<p>Carbon monoxide levels would increase compared to current conditions because of traffic increases. However, carbon monoxide levels would remain well below the National Ambient Air Quality Standard.</p> <p>No impairment of air quality resources.</p>	<p>Effects would be the same as Alternative A. Although Alternative C would reroute traffic that would use Beach Drive under Alternative A or B, no traffic would be diverted to outside the airshed.</p>	<p>Effects would be the same as Alternative A. Although Alternative D would reroute traffic that would use Beach Drive during the mid-day period under Alternative A or B, no traffic would be diverted to outside the airshed.</p>



**TABLE 7: SUMMARY OF IMPACTS OF THE ALTERNATIVES (Continued)**  
(Detailed information on the impacts evaluation is provided in the “Environmental Consequences” section.)

<b>Impact Topic</b>	<b>Alternative A: Improved Management of Established Park Uses</b>	<b>Alternative B: Continue Current Management/No Action</b>	<b>Alternative C: Nonmotorized Recreation Emphasis</b>	<b>Alternative D: Mid-Weekday Recreation Enhancement</b>
Rock Creek and its tributaries	<p>Application of best management practices to park areas known to be contributing pollutants would produce beneficial, long-term, measurable effects on water quality.</p> <p>Construction at several sites would produce negligible, adverse, short-term effects on water quality and hydrology.</p> <p>Better education of the public could help reduce upstream pollutant loadings and storm water flows.</p> <p>Replacement of poorly designed trail segments with erosion problems would have a measurable, long-term, beneficial effect on water quality.</p>	<p>The application of best management practices to park areas known to be contributing pollutants would produce beneficial, long-term, measurable effects on water quality.</p> <p>Continued interagency measures to maintain and improve sanitary and combined sewer systems would produce beneficial, long-term, major effects on water quality. Coordination could also produce beneficial, long-term, major reductions in streambed alterations such as scour and sedimentation.</p>	<p>Diversion of traffic to roads outside the park would redistribute vehicle-related pollutants that wash into Rock Creek during storms but the change in pollutant loading in the watershed would be negligible.</p> <p>Other effects would be the same as Alternative A.</p>	<p>Diversion of traffic to roads outside the park during mid-day periods would redistribute vehicle-related pollutants that wash into Rock Creek during storms but the change in pollutant loading in the watershed would be negligible.</p> <p>Other effects would be the same as Alternative A.</p>

**TABLE 7: SUMMARY OF IMPACTS OF THE ALTERNATIVES (Continued)**  
 (Detailed information on the impacts evaluation is provided in the “Environmental Consequences” section.)

<b>Impact Topic</b>	<b>Alternative A: Improved Management of Established Park Uses</b>	<b>Alternative B: Continue Current Management/No Action</b>	<b>Alternative C: Nonmotorized Recreation Emphasis</b>	<b>Alternative D: Mid-Weekday Recreation Enhancement</b>
Rock Creek and its tributaries (continued)	<p>Improved park-wide management of soils, vegetation, and water under an updated natural resources management plan would have a measurable, long-term, beneficial effect on water quality and hydrology.</p> <p>Continued interagency measures to maintain and improve sanitary and combined sewer systems would produce beneficial, long-term, major effects on water quality. Coordination could also produce beneficial, long-term, major reductions in streambed alterations such as scour and sedimentation.</p> <p>No impairment of water quality or hydrology resources.</p>	No impairment of water quality or hydrology resources.		
Wetlands and floodplains	<p>No temporary or permanent adverse effects would occur on wetlands. Better education of the public on the need to control upstream storm water runoff could benefit wetlands.</p> <p>Minor, temporary, adverse effects on floodplains would result from rehabilitation at the Peirce Mill complex and construction of improvements on some trails along Rock Creek. Effects would be controlled using best management practices.</p> <p>No impairment of wetland or floodplain resources.</p>	<p>No effects would occur. Wetlands and floodplains would continue to be protected in conformance with Executive Orders 11990 and 11988, respectively.</p> <p>No impairment of wetland or floodplain resources.</p>	Effects would be the same as Alternative A.	Effects would be the same as Alternative A.

**TABLE 7: SUMMARY OF IMPACTS OF THE ALTERNATIVES (Continued)**  
(Detailed information on the impacts evaluation is provided in the “Environmental Consequences” section.)

<b>Impact Topic</b>	<b>Alternative A: Improved Management of Established Park Uses</b>	<b>Alternative B: Continue Current Management/No Action</b>	<b>Alternative C: Nonmotorized Recreation Emphasis</b>	<b>Alternative D: Mid-Weekday Recreation Enhancement</b>
Deciduous forests	<p>Current management practices would continue to protect the deciduous forest.</p> <p>Conversion of about a half acre of forested land to new paved trail area would be a long-term, minor, adverse effect on the deciduous forest.</p> <p>Disturbance of up to 5.8 acres of forest for a trail construction zone would be a minor, short-term, adverse effect.</p> <p>Rerouting trails currently on steep slopes, erosion-prone areas, riparian zones, or rare biotic communities would be a major, long-term, beneficial effect.</p> <p>No impairment of deciduous forest resources.</p>	<p>Current management practices would continue to protect deciduous forests.</p> <p>Erosion problems along heavily used or improperly designed trails would continue and probably worsen.</p> <p>No impairment of deciduous forest resources.</p>	Effects would be the same as Alternative A.	Effects would be the same as Alternative A.
Protected and rare species	<p>Long-term protection of endangered amphibods could be enhanced by implementing more active protection.</p> <p>Improved education and interpretation may increase the public’s appreciation for these species and lead to better protection outside the park.</p> <p>No impairment of protected or rare species.</p>	<p>The National Park Service would continue to protect rare species and their supporting habitats.</p> <p>No impairment of protected or rare species.</p>	Effects would be the same as Alternative A.	Effects would be the same as Alternative A.

**TABLE 7: SUMMARY OF IMPACTS OF THE ALTERNATIVES (Continued)**  
 (Detailed information on the impacts evaluation is provided in the “Environmental Consequences” section.)

<b>Impact Topic</b>	<b>Alternative A: Improved Management of Established Park Uses</b>	<b>Alternative B: Continue Current Management/No Action</b>	<b>Alternative C: Nonmotorized Recreation Emphasis</b>	<b>Alternative D: Mid-Weekday Recreation Enhancement</b>
Other native wildlife	<p>Current management practices would continue to protect native wildlife.</p> <p>Minor, short-term, adverse effects from trail improvements and realignments would be controlled using best management practices.</p> <p>Reduced traffic speeds and volumes would reduce wildlife roadkill, a beneficial effect. For most species, the effect would be negligible. Effects on the box turtle would be moderate. Effects on the gray fox would be major.</p> <p>Better education of the public on the adverse effects of moving box turtles or removing them from the park would provide a moderate, long-term, beneficial effect on box turtles.</p> <p>No impairment of native wildlife resources.</p>	<p>Current management practices would continue to protect native wildlife in the park.</p> <p>No impairment of native wildlife resources.</p>	<p>Closure of portions of Beach Drive to motorized traffic would further reduce the number of terrestrial wildlife roadkills compared to Alternative B. For most species, the effect would be negligible. Effects on the box turtle would be moderate. Effects on the gray fox would be major.</p> <p>Other effects would be the same as Alternative A.</p>	<p>Closure of portions of Beach Drive to motorized traffic during mid-weekdays would reduce the number of terrestrial wildlife roadkills, especially for species that are active during the day. For most species, the effect would be negligible. Effects on the box turtle would be moderate. Effects on the gray fox would be major.</p> <p>Other effects would be the same as Alternative A.</p>

**TABLE 7: SUMMARY OF IMPACTS OF THE ALTERNATIVES (Continued)**  
(Detailed information on the impacts evaluation is provided in the “Environmental Consequences” section.)

<b>Impact Topic</b>	<b>Alternative A: Improved Management of Established Park Uses</b>	<b>Alternative B: Continue Current Management/No Action</b>	<b>Alternative C: Nonmotorized Recreation Emphasis</b>	<b>Alternative D: Mid-Weekday Recreation Enhancement</b>
Archeological resources	<p>No significant adverse effect would occur because the National Park Service would relocate any facilities that would disturb sites that potentially were eligible for listing in the National Register of Historic Places.</p> <p>Increased monitoring and improved visitor education would reduce the potential for non-construction-related significant adverse effects.</p> <p>The disturbance of sites could result in some irretrievable and irreversible loss of archeological resources.</p> <p>No impairment of archeological resources.</p>	<p>Current incremental degradation of sites and features would continue.</p> <p>No impairment of archeological resources.</p>	Effects would be the same as Alternative A.	Effects would be the same as Alternative A.
Historic structures and cultural landscapes	<p>A significant beneficial impact would occur to the Peirce-Klingel Mansion and Lodge House, which would be rehabilitated to preserve their architecturally significant features and would be used in accordance with park resource values.</p> <p>A significant beneficial impact would occur to historic trails where improvements or rehabilitation would enhance their integrity and preservation.</p>	<p>Historic structures and cultural landscapes would be protected, preserved, and interpreted in a manner consistent with NPS policies.</p> <p>No impairment of historic structures and cultural landscapes.</p>	Effects would be the same as Alternative A.	Effects would be the same as Alternative A.

**TABLE 7: SUMMARY OF IMPACTS OF THE ALTERNATIVES (Continued)**  
(Detailed information on the impacts evaluation is provided in the “Environmental Consequences” section.)

<b>Impact Topic</b>	<b>Alternative A: Improved Management of Established Park Uses</b>	<b>Alternative B: Continue Current Management/No Action</b>	<b>Alternative C: Nonmotorized Recreation Emphasis</b>	<b>Alternative D: Mid-Weekday Recreation Enhancement</b>
Historic structures and cultural landscapes (continued)	<p>Rehabilitation of the significant cultural landscape features and attributes of the Linnaean Hill and Peirce Mill areas would enhance park preservation and visitor understanding of park’s historic settings.</p> <p>The disturbance of sites during new construction could result in some irretrievable and irreversible loss of resources.</p> <p>No impairment of historic structures and cultural landscapes.</p>			
Traditional park character and visitor experience	<p>The traditional character and appearance of the park would not change.</p> <p>Reduced noise because of reduced traffic speeds and volumes would have negligible to minor, long-term, beneficial impacts.</p> <p>Improvements to trails would have a moderate, long-term, beneficial impact.</p> <p>Rehabilitation of historic buildings and landscapes would a moderate, long-term, beneficial impact.</p> <p>Improved education and interpretation facilities and staffing levels would enhance opportunities to learn about and experience the park’s natural and cultural resources, a moderate, long-term, beneficial impact.</p>	<p>The traditional character and appearance of the park would not change.</p> <p>Park visitors would be adversely affected by escalating nonrecreational traffic in the park and on the parkway.</p> <p>Eroding trail segments could lead to unsightly and potentially unsafe conditions.</p> <p>Education and interpretation would continue to be limited by inaccurate, worn, and dated facilities and exhibits and insufficient staff levels.</p>	<p>The elimination of the visitor experience of automobile travel along the length of the park, including the gorge area, would be a major adverse impact.</p> <p>A moderate, long-term, beneficial effect would result from the improved ability for park visitors to participate in nonmotorized recreation along Beach Drive throughout the week.</p> <p>Reduced noise on the closed segments of Beach Drive would have minor to moderate, long-term, beneficial impacts.</p>	<p>The traditional character and appearance of the park would not change.</p> <p>The mid-day closures of Beach Drive segments would have a minor, adverse effect on automobile travel along the length of the park.</p> <p>A moderate, long-term, beneficial effect would result from the improved ability for park visitors to participate in nonmotorized recreation along Beach Drive during workday mid-day periods.</p>

**TABLE 7: SUMMARY OF IMPACTS OF THE ALTERNATIVES (Continued)**  
(Detailed information on the impacts evaluation is provided in the “Environmental Consequences” section.)

<b>Impact Topic</b>	<b>Alternative A: Improved Management of Established Park Uses</b>	<b>Alternative B: Continue Current Management/No Action</b>	<b>Alternative C: Nonmotorized Recreation Emphasis</b>	<b>Alternative D: Mid-Weekday Recreation Enhancement</b>
Traditional park character and visitor experience (continued)	<p>Improved working conditions would result in a moderate, long-term, beneficial effect on park operations, but the intensity of the beneficial impact perceived by the public probably would be minor.</p> <p>Moderate, long-term, beneficial effect on recreational opportunities would occur because of slower traffic and improved education and interpretation opportunities.</p> <p>Improved access to many facilities throughout the park to individuals with impaired mobility would be a moderate, long-term, beneficial impact.</p>	<p>Inadequate administration and operations facilities could have a deleterious effect on visitors experience and safety.</p> <p>A large number of visitors would continue to participate in a wide spectrum of recreation opportunities, but recreation quality and opportunities for interpretation and education would continue to decline.</p> <p>Individuals with impaired mobility would continue to encounter access impediments in park buildings and on trails.</p>	<p>Effects from trail improvements, rehabilitation of historic buildings and landscapes, improved education and interpretation facilities and staffing, and improved working conditions would be the same as Alternative A.</p> <p>While the quality of recreation experiences would improve, there would be decreases in park use and the spectrum of opportunities.</p> <p>Improved access for people with impaired mobility would be a moderate, long-term, beneficial impact. Changes in access on the closed segments of Beach Drive would have moderate impacts but each person’s perception would determine if they were beneficial or adverse.</p>	<p>Reduced noise on the closed segments of Beach Drive would have minor to moderate, long-term, beneficial impacts during the mid-day.</p> <p>Effects from trail improvements, rehabilitation of historic buildings and landscapes, improved education and interpretation facilities and staffing, and improved working conditions would be the same as Alternative A.</p> <p>Daily installation and removal of traffic barriers would have a negligible to minor adverse effect on park operations.</p> <p>Moderate, long-term, beneficial effect on recreational opportunities would occur because of improved quality, the greatest spectrum, and improved education and interpretation opportunities.</p> <p>Effects on people with impaired mobility would be like Alternative C.</p>

**TABLE 7: SUMMARY OF IMPACTS OF THE ALTERNATIVES (Continued)**  
(Detailed information on the impacts evaluation is provided in the “Environmental Consequences” section.)

<b>Impact Topic</b>	<b>Alternative A: Improved Management of Established Park Uses</b>	<b>Alternative B: Continue Current Management/No Action</b>	<b>Alternative C: Nonmotorized Recreation Emphasis</b>	<b>Alternative D: Mid-Weekday Recreation Enhancement</b>
Public health and safety	Long-term, major, beneficial effects on public health and safety would occur, primarily because of the effectiveness of traffic-calming measures in reducing the number and severity of traffic accidents. Effects on crimes against persons and the effectiveness of emergency evacuations would be negligible.	Public health and safety would decline over time. Already high traffic volumes that would continue to increase throughout the park and on the parkway would represent the greatest threats to public health and safety.	Permanent closures of three segments of Beach Drive would have a long-term, negligible to minor, beneficial effect on safety. Other effects of this alternative would be the same as Alternative A.	Mid-day closures of three segments of Beach Drive would have a long-term, negligible to minor, beneficial effect on safety. Other effects of this alternative would be the same as Alternative A.
Regional and local transportation	<p>During rush-hour periods, effects on traffic speeds and volumes would be negligible compared to Alternative B.</p> <p>Outside the rush-hour periods, traffic-calming measures and reduced speed limits would slow the speed of traffic. They also would reduce traffic volumes because some drivers who were not planning other recreation in the park would voluntarily use Ross Drive or non-park routes. The effects on levels of service would be negligible compared to Alternative B. However, the reduced motorized traffic volumes and speeds would reduce conflicts between automobile use and nonmotorized travel in the Rock Creek valley.</p>	<p>Congestion would continue to increase with increased traffic in the park and throughout the area.</p> <p>Continued conflicts would occur between recreational and nonrecreational users of park roads.</p>	<p>Nonrecreational traffic would be eliminated or substantially reduced in the park. Nonmotorized travel would be enhanced.</p> <p>Levels of service would improve on most segments of the parkway.</p> <p>Traffic volumes in the neighborhoods to the north of the park could increase in the short term until drivers learned alternate patterns. There would not be any long-term changes in levels of service in these neighborhoods.</p>	<p>Outside of mid-weekday closure periods, transportation conditions would be like those of Alternative A.</p> <p>During mid-weekday closures, nonrecreational traffic would be eliminated or substantially reduced in the park. Nonmotorized travel would be enhanced.</p> <p>During weekday Beach Drive closures, effects on traffic volumes in nearby neighborhoods would be the same as those described for Alternative C.</p>



**TABLE 7: SUMMARY OF IMPACTS OF THE ALTERNATIVES (Continued)**  
(Detailed information on the impacts evaluation is provided in the “Environmental Consequences” section.)

<b>Impact Topic</b>	<b>Alternative A: Improved Management of Established Park Uses</b>	<b>Alternative B: Continue Current Management/No Action</b>	<b>Alternative C: Nonmotorized Recreation Emphasis</b>	<b>Alternative D: Mid-Weekday Recreation Enhancement</b>
Regional and local transportation (continued)	Throughout the day, improvements to recreation trails would enhance nonmotorized transportation in the park. During non-rush-hour periods, reduced automobile traffic speeds and volumes may increase nonmotorized travel on Beach Drive, particularly bicycle travel.		Changes in levels of service on city streets outside the park would be mixed, with some improvements and some decreases. Changes would be negligible to considerable.	
Community character	<p>Negligible effects, relative to Alternative B, on community character and the quality of life of area residents or the economic health of businesses.</p> <p>Trail improvements and traffic control would improve nonmotorized recreation, benefiting citizens who use the park and park vicinity for these purposes.</p> <p>Environmental justice: No disproportionate routing of traffic to disadvantaged areas or ethnic neighborhoods would occur.</p>	Changes in community character from park management activities would be minor compared to changes from social and economic conditions outside the park.	<p>Eight segments would experience noticeably improved community characteristics associated with lower traffic levels during one or both of the peak hours on weekdays. Nine road segments would experience a noticeable to considerable decline.</p> <p>Moderate beneficial effects would occur on regional opportunities for nonmotorized recreation.</p> <p>Environmental justice: No disproportionate routing of traffic to disadvantaged areas or ethnic neighborhoods would occur.</p>	<p>Except during mid-day closures on weekdays, effects would be the same as Alternative B.</p> <p>During the middle portion of weekdays, moderate beneficial effects would occur on regional opportunities for nonmotorized recreation.</p> <p>Environmental justice: No disproportionate routing of traffic to disadvantaged areas or ethnic neighborhoods would occur.</p>