



**Rock Creek Park  
Nature Center Complex  
Development Concept  
Plan and Environmental  
Assessment**

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## **NOTE TO REVIEWERS AND RESPONDENTS**

Comments on this environmental assessment may be submitted electronically at the NPS Planning, Environment and Public Comment (PEPC) website (<http://parkplanning.nps.gov/ROCRDCP>) or you may mail written comments by April 18, 2019, to the address listed below.

Before including personal identifying information in your comment, you should be aware that your entire comment—including your personal identifying information—may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

Attn: Nature Center Complex DCP  
Office of the Superintendent  
Rock Creek Park  
3545 Williamsburg Lane, NW  
Washington, DC 20008

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## EXECUTIVE SUMMARY

### INTRODUCTION

The National Park Service (NPS) has prepared a development concept plan and environmental assessment (plan/EA) for Rock Creek Park to establish a vision and clear guidance for the future management of the Nature Center area (Nature Center Complex) at Rock Creek Park in Washington, DC. For the purposes of this plan/EA, the project area is defined as the Nature Center and Planetarium; Horse Center Area; Maintenance Area; and the immediate surroundings, including picnic areas #13 and #14; and nearby trails.

This document has been prepared in accordance with the National Environmental Policy Act of 1969 (NEPA); regulations of the Council on Environmental Quality (40 CFR 1500-1508); NPS Director's Order 12: *Conservation Planning, Environmental Impact Analysis, and Decision-Making*; the NPS NEPA Handbook (NPS 2015); and NCPC's Environmental and Historic Preservation Policies and Procedures (NCPC 2004). In a separate, yet parallel process, the plan is also being developed in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended.

The purpose of the plan/EA is to provide guidance for the improvement and management of high-priority buildings and other facilities in the Nature Center Complex of Rock Creek Park. The proposed improvements would protect park resources and enhance visitor experience while ensuring that the long-term costs of implementation, operations, and maintenance are feasible for the National Park Service within its available financial resources. The plan/EA describes three alternatives, Alternative 1: No-Action Alternative, Alternative 2: Fix It, and Alternative 3: NPS Preferred Alternative.

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## Chapter 1: Purpose And Need

### INTRODUCTION

The National Park Service (NPS) has prepared a development concept plan and environmental assessment (plan/EA) for Rock Creek Park to establish a vision and clear guidance for the future management of the Nature Center Area (Nature Center Complex) at Rock Creek Park in Washington, DC. The plan/EA provides this guidance at the conceptual level. Specifics about facility and grounds rehabilitation will be determined during the design phase of the project and may be subject to further compliance review under the National Environmental Policy Act; the National Historic Preservation Act; and other applicable laws, policies, and regulations.

For the purposes of this plan/EA, the project area is defined as the Nature Center and Planetarium, Horse Center Area, Maintenance Area, and the immediate surroundings, including picnic areas #13 and #14, and nearby trails as shown in the project area overview map (figure 1).

This plan/EA describes three alternatives, including two action alternatives and the no-action alternative, and analyzes the environmental consequences of implementing the alternatives. This document has been prepared in accordance with the National Environmental Policy Act of 1969 (NEPA); regulations of the Council on Environmental Quality (40 CFR 1500-1508); NPS Director's Order #12: Conservation Planning, Environmental Impact Analysis, and Decision-Making; the NPS NEPA Handbook (NPS 2015); and NCPC's Environmental and Historic Preservation Policies and Procedures (NCPC 2004).

### PURPOSE AND NEED FOR THE ACTION

The purpose of the plan/EA is to provide guidance for the improvement and management of high-priority buildings and other facilities in the Nature Center Complex of Rock Creek Park. The proposed improvements would protect park resources and enhance visitor experience while ensuring that the long-term costs of implementation, operations, and maintenance are feasible for the National Park Service within its available financial resources.

The facilities within the Nature Center Complex currently do not meet the full needs of park visitors and staff. They require upgrades for code compliance purposes, including improvements for physical and programmatic accessibility, fire suppression, and electrical and mechanical system upgrades. The current configuration of the Nature Center, a contributing resource to the Rock Creek Park National Register Historic District, does not make optimal use of its existing square footage, which limits its use for community gatherings and potential revenue generation.

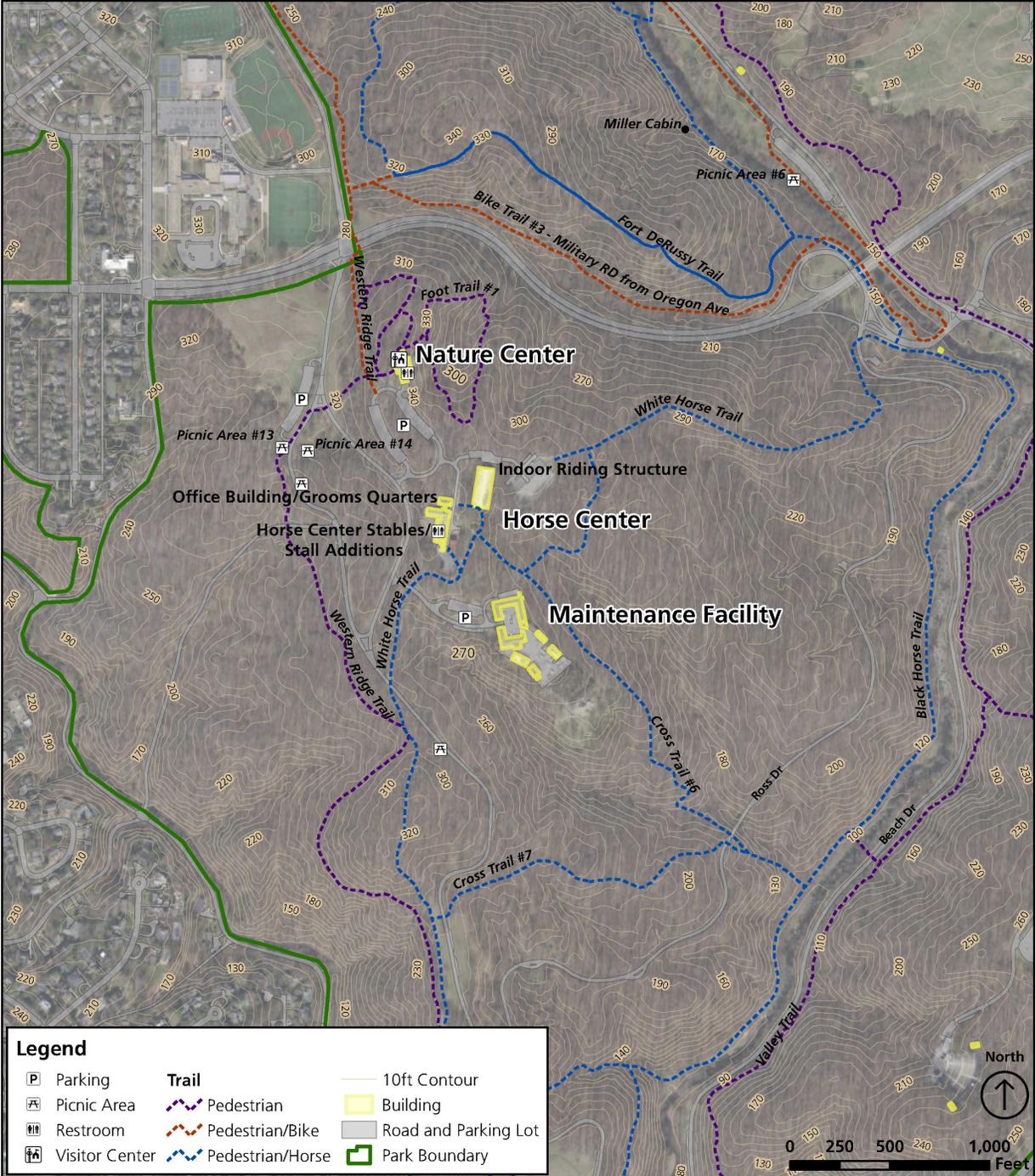
# Rock Creek Park

## Feasibility Development Concept Plan

National Park Service  
U.S. Department of the Interior



### Project Area Overview



Produced by Denver Service Center Planning Division

December 2018

FIGURE 1. PROJECT AREA OVERVIEW MAP

The Nature Center also has flooding issues that require resolution. In addition, the building's planetarium is small, has outdated facilities, has limited seating, and requires an accessible route that follows the exterior of the structure. Similarly, buildings and spaces in the Maintenance Area would benefit from improved configuration of workspaces, with the potential to house consolidated park offices and operations. Buildings and spaces at the Horse Center do not adequately house and support the horses, the concessioner, and visitors. Navigation around the Nature Center Complex is challenging for visitors and would benefit from improved signage.

In addition, the facilities in the Nature Center Complex currently have a deferred maintenance backlog in excess of \$4 million, as well as forecasted future capital needs of approximately \$8 million. This plan/EA proposes targeted capital improvements that would revitalize these facilities and the project area by addressing needed repairs and deficiencies, thereby extending their lifespans and lowering the total cost of facility ownership. Improvements would be financed with project funds, when available, from the National Park Service and potentially its partner groups.

## **VISITOR CAPACITY**

Identification of visitor capacity is a legal requirement of the 1978 National Parks and Recreation Act. If a general management plan, or subsequent past plans, has not identified visitor capacity, the National Park Service is directed to identify visitor capacity when conducting implementation level plans (IVUMC 2016). Visitor capacity has not been identified for Rock Creek Park as a whole or any of the specific areas in this plan/EA. For this reason, there is a need to identify visitor capacity for areas within this plan/EA. Visitor capacity is a component of visitor use management. It is the maximum numbers and types of visitor use that an area can accommodate while achieving and maintaining the desired resource conditions and visitor experience that are consistent with the purposes for which Rock Creek Park was established (IVUMC 2016). The 2005 general management plan focused on providing management prescriptions by zones that included desired conditions for visitor experience and resources. As part of this planning process, visitor capacities have been identified for areas addressed in this plan/EA. Visitor capacities are based on desired conditions as outlined in the general management plan, an understanding of current use levels and patterns, and the actions contained in the alternatives. Visitor capacities vary slightly by alternative and can be found in appendix A. Generally, visitation is either below or near identified visitor capacities. Any anticipated increases in visitation are consistent with actions contained within the alternatives. Therefore, no additional actions associated with managing visitor capacity are included as part of the plan/EA. The visitor capacity identification found in appendix A serves to fulfill the 1978 National Parks and Recreation Act legal requirement.

## **NATURE CENTER COMPLEX**

The Nature Center Complex is located within Rock Creek Park near the intersection of Military Road NW and Glover Road NW. The complex includes the Rock Creek Park Nature Center (referred to as the Nature Center in this document); the Rock Creek Park Horse Center (referred to as the Horse Center in this document); the park maintenance facility; and related road, parking, trail, and landscape assets. The area makes up 54 acres of the nearly 3,000 acres of federal park land administered by Rock Creek Park.

Built in 1959 as part of the Mission 66 program, the Nature Center is the primary park location for visitor contact and orientation. It is the most consistently staffed facility in the park, offers numerous visitor programs, and houses the only planetarium within the National Park Service. The Nature Center received 53,169 visitors in 2017. The center also serves as a hub for the majority of the park's volunteer activities. Rock Creek Park had 4,391 volunteers in 2015 that performed nearly 43,000 hours of work, which is equivalent to 20 full-time staff.

The Horse Center is a concessions-operated complex located between the Nature Center and the Maintenance Area. The buildings at the Horse Center were constructed over a 33-year time span, with the stables built in 1958, the indoor riding structure in 1972, and the office building in 1985. The Horse Center received 24,227 visitors in 2017. A network of pedestrian pathways leads visitors around both the Nature Center and the Horse Center and provides a non-motorized connection between these two areas. Both the Rock Creek Park Nature Center and the Horse Center stables have been included in the National Register of Historic Places as part of the NPS Mission 66 development program of the 1950s and 1960s. Following their construction, these facilities were subsequently rehabilitated and/or expanded to improve the effectiveness of programs for the public.

The Maintenance Area serves as the primary location for Rock Creek Park maintenance operations and provides office space for other divisions in the park. Since its initial construction in 1959, the facility has evolved, with several garage bays reconfigured for use as staff offices. Visitors often approach the Maintenance Area for birding opportunities and to see the "Stones of the Capitol" stored behind the Maintenance Area.

Picnic grove #13 is a site that visitors can reserve, with two time periods available each day, a morning (9:30 a.m. to 1:30 p.m.) and an evening (3:00 p.m. to 7:00 p.m. or dark) time slot. It includes dispersed picnic tables, a fire ring (stone grill), and a covered pavilion. Park picnic regulations stipulate that the maximum number of people per reservation per site is 75. In 2017, 125 reservations were made for the site.

Picnic grove #14 is a first-come, first-served site. It includes dispersed picnic tables, fire rings, and no shelters. Picnic regulations for the park stipulate that the maximum number of people per first-come, first-served sites is 25.

## **PLANNING ISSUES AND CONCERNS IDENTIFIED DURING SCOPING**

The National Park Service, participating agencies and stakeholders, and members of the public identified specific issues and concerns during scoping. The National Park Service considered all of these issues and concerns, but ultimately some were dismissed from detailed analysis because they were determined not central to the proposal or of critical importance. Other issues and concerns were retained for detailed analysis and are included in the impact topics that are discussed in the "Affected Environment and Environmental Consequences" section of this environmental assessment.

### **Planning Issues and Concerns Retained for Detailed Analysis**

**The proposed project would modify contributing elements and add new elements to the Nature Center.** The Nature Center and the Rock Creek Horse Stables are contributing structures to the Rock Creek Park Historic Register District. Expanding the Nature Center and making the building Architectural Barriers Act (ABA) compliant could potentially affect the

integrity of the Mission 66 structure and the overall historic district; therefore, Historic Structures and Districts will be retained for further analysis. The projects' potential impacts to historic properties is analyzed in detail under Historic Structures and Districts within the "Affected Environment and Environmental Consequences" section of this environmental assessment.

**Construction activities and the proposed new birding trail in the maintenance facility area would affect wildlife and wildlife habitat.** Rock Creek Park includes a breeding bird census area, a 65-acre tract of forested land that has been surveyed regularly since 1948. This long-running study is an important contribution to the nationwide breeding bird census run by the National Audubon Society. The park and project area provide critical wildlife habitat within an urban zone, serving as an important resting and breeding spot for migratory birds. During scoping, multiple people commented on the value of the project area as a bird corridor and an oasis that provides the opportunity to see wildlife, especially in contrast to the surrounding environment. However, by formalizing the area near the maintenance facility for birding, the potential increase of human presence may negatively affect breeding birds. These potential impacts are analyzed in detail under Wildlife and Wildlife Habitat within the "Affected Environment and Environmental Consequences" section of this environmental assessment.

**Existing trails and paths within the Nature Center Complex are not fully compliant with current Architectural Barriers Act Accessibility Standards (ABAAS).** During project scoping, the National Park Service identified that existing pedestrian facilities at the Nature Center and some walkways are not accessible for persons with disabilities. At the Nature Center, people using wheelchairs must take a long ramp around the facility to access the lower level of the interior, including the planetarium and auditorium. In addition, ABAAS-compliant curb ramps have not been installed at pedestrian crosswalks. According to the Architectural Barriers Act, access for persons with disabilities is required in all facilities designed, built, altered, or leased with federal funds. The project's potential impacts related to providing ABA-accessibility have been analyzed in detail under *Visitor Use and Experience* within the "Affected Environment and Environmental Consequences" section of this environmental assessment.

### **Planning Issues and Concerns Dismissed From Detailed Analysis**

**There is a potential for construction activities and new impervious surfaces to affect water quality.** Rock Creek and its tributaries have been designated "Special Waters of the District of Columbia" for their scenic and aesthetic importance. It is intended that the water quality of such designated waters be maintained and not allowed to degrade. There are potentially noticeable impacts to water resources, namely water quality, from activities proposed in the action alternatives. New developments and construction activities would cause some primarily short-term increases in areas cleared of vegetation, which may also increase sedimentation into these waters. New impervious surfaces—sidewalks and parking areas—would have permanent effects on runoff rates although the use of permeable surfaces where feasible may reduce these effects. The use of sustainable and environmental friendly design would reduce flooding issues in the project area. In addition, the project design would follow the requirements of the District of Columbia 2013 Stormwater Management Rule, which requires on-site stormwater runoff reduction and maximum stormwater retention.

**Potential for ground disturbance during construction to uncover archeological resources.** Rock Creek Park has a rich history dating back to Native American campsites occupied between 2500 BC and AD 1400. The archeological record also contains evidence of occupation during

the colonial frontier, Civil War, and historic times. There are numerous recorded archeological sites and features located in the Nature Center Complex area. Impacts to the resources (potential visitor trampling, vandalism, and artifact collecting) would be consistent across the alternatives (including the no-action alternative) and are not a significant factor in selecting an alternative. Rock Creek Park has identified archeological resources as one of its other important resources and values, and these resources will be acknowledged in the plan's mitigation measures. As such, concerns related to archeological resources will be retained for further analysis on a case-by-case basis for ground-disturbing activities that may arise as a result of the project.

**Construction activities in the area would affect vegetation.** The forest is an essential component of the landscape, and scenic qualities of Rock Creek Park buffers the park from the surrounding urbanization and provides protected habitat for wildlife and plant species. The actions within the alternatives, including construction activities as well as permanent changes in infrastructure, can have adverse impacts on vegetation and would likely result in tree removals. The removal of several individual trees and small conversion of grassed/vegetated areas to permanent visitor facilities would likely be noticeable by visitors but would not be significant when compared to the abundance of surrounding habitat. Discussion of vegetation removal is included in the alternatives descriptions and discussed in Wildlife and Wildlife Habitat sections.

**Potential for the project to impact lands held in trust by the Secretary of the Interior for the benefit of Indians.** There are no Indian trust resources near the Nature Center Complex in Rock Creek Park, and no lands are held in trust by the Secretary of the Interior for the benefit of Indians because of their status as Indians. Therefore, concerns related to Indian trust resources have been dismissed from further study in this environmental assessment.

**Potential for the project to affect federally listed threatened and endangered species, District of Columbia Species of Greatest Conservation Need, and state-listed species of concern.** Rock Creek Park provides habitat for at least one federally listed endangered species, Hay's Spring Amphipod (*Stygobromus hayi*), and several District of Columbia Species of Greatest Conservation Need amphipods in springs and groundwater within Rock Creek Park. These species are not known to occur in the project area, but the project area may be part of the drainages that feed these springs. In addition, there are known roost and maternity trees of the Northern Long-eared Bat (*Myotis septentrionalis*) near the project area. The likelihood of additional roost or maternity trees in the project area is high; additional research is ongoing in the project area, including investigations into the presence of bat hibernacula (overwintering habitat). However, roost or maternity trees, and any found hibernacula, would be avoided during implementation of this plan/EA, and park staff would observe time of year restrictions during construction to minimize impacts to bats during maternity season. As a result, this impact topic was dismissed from further consideration.

**Potential for the project to disproportionately impact minority or low-income populations.** Concerns related to environmental justice have been dismissed from further study in this environmental assessment because of the following:

- The planning team actively solicited public participation as part of the planning process and gave equal consideration to all input from persons regardless of age, race, income status, or other socioeconomic or demographic factors.

- Implementation of the proposed alternative would not result in any identifiable adverse human health effects. Therefore, there would be no direct or indirect adverse effects on any minority or low-income population.
- The impacts associated with implementation of the proposed alternative would not disproportionately affect any minority or low-income population or community.
- Implementation of the proposed alternative would not result in any identified effects specific to any minority or low-income community.

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## Chapter 2: Alternatives

This environmental assessment analyzes a no-action alternative (alternative 1) and two action alternatives (alternatives 2 and 3) for proposed renovations to the Nature Center Complex, with focus on actions associated with the Nature Center, Horse Center, Maintenance Yard, and surrounding amenities. The no-action alternative would continue current management, and it provides a basis for comparing the other alternatives. The action alternatives present different approaches to managing park resources and values. Impacts associated with the actions proposed under each alternative are outlined in the “Affected Environment and Environmental Consequences” section of this environmental assessment. In addition, several concepts were dismissed from further consideration, which are described in this chapter under “Alternatives Dismissed from Further Consideration.”

### **ALTERNATIVE 1: NO ACTION**

Under alternative 1, existing facilities would continue to operate and be maintained in their current conditions (figure 2).

**Nature Center.** The Nature Center would continue in its capacity as the primary visitor contact station in the park, containing a bookstore, exhibit space, auditorium, planetarium, a children’s “Discovery Room,” and offices for interpretive staff.

**Horse Center.** The Horse Center would continue to be managed and run by a concessioner. Its facilities would continue to support visitors seeking horseback riding and horse boarding, and the concessioner and park staff would continue to offer equestrian programs in facilities and on the grounds. The facilities are made up of

- a 17,100-square-foot stable that includes horse stalls and grooming areas, a lobby, tack room, storage, restrooms, and lockers;
- a 595-square-foot office;
- 609 square feet of classroom space;
- a 400-square-foot manure/muck storage building;
- a 14,000-square-foot indoor riding ring; and
- three outdoor horse turnout areas.

The facility space comprises 51,000 square feet in total and can house a maximum of 58 horses.

**Maintenance Area.** The Maintenance Area would continue to serve as the operational hub for the park units administered by the Rock Creek Park staff. It would continue to house offices and maintenance and service structures, and the facilities and grounds would continue to support

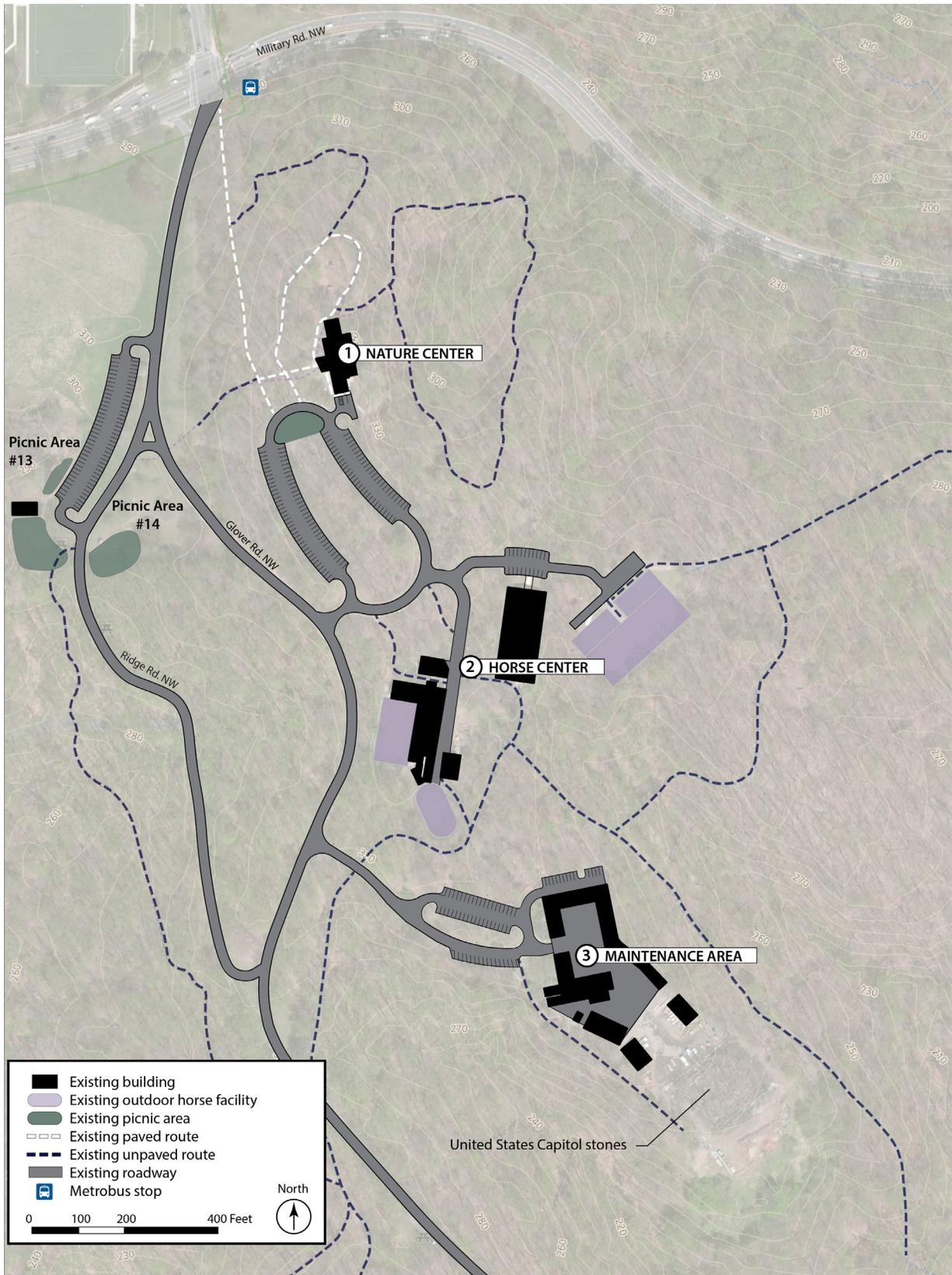


FIGURE 2. MAP FOR ALTERNATIVE 1 – NO ACTION

maintenance activities. In addition, the Architect of the Capitol would continue to store and access the United States Capitol stones in the area behind the maintenance fence. The structures include an automotive shop, maintenance shop, vehicles/heavy equipment storage, fuel storage and dispensing facilities, salt storage area, snow plow blade storage area, and waste/recycle center. The one-story maintenance office building, totaling 9,200 square feet, contains offices, restrooms, locker area and showers, and a break room.

**Other Site Amenities.** Unpaved and paved trails in the project area, and picnic areas #13 and #14, would continue to be maintained in their current configurations and sizes. Trails in the project area include 0.3 miles of paved sidewalks and trails and about 2 miles of unpaved hiking trails, including a 0.25 mile, wheelchair-accessible, self-guiding nature trail near the Nature Center. Picnic area #13 includes dispersed picnic tables, fire ring (stone grill), and covered pavilion. Picnic area #14 includes dispersed picnic tables, fire rings, and no shelters.

## **ALTERNATIVE 2: FIX IT**

Under alternative 2, the Nature Center Complex would see upgrades intended to provide visitors, volunteers, partner organizations, and park staff increased universal access to facilities and programs throughout the area (figure 3). In general, building footprints would remain the same, except where universal accessibility cannot be easily accommodated within the existing building envelopes. Buildings interiors would be reconfigured, repaired, and/or repurposed to improve functional use and upgrade visitor and staff accommodations. Renovations and improvements would make use of and showcase sustainable technology. All new and repaired buildings would strive to meet LEED certification standards and incorporate low impact development standards for exterior surfaces. Accessibility and safety improvements in the Nature Center Complex would be completed and deferred maintenance would be addressed. The Miller Cabin would not be relocated in this alternative. Expanded interpretive programming, updated facilities, and new paths and trail connections would be provided to encourage visitors to stay and explore the area.

In all alternatives, parking lots would remain the same size and would be restriped to provide the appropriate number of accessible parking stalls. For alternatives 2 and 3, stormwater management would be pursued for construction activities, and treatments such as bioswales, rain gardens, use of permeable surfaces for roadways and sidewalks, and others would be implemented in accordance with the District of Columbia 2013 Stormwater Management regulations and guidelines. The type and placement of these stormwater management mitigation measures would be determined during project design.

For this alternative, the maximum new development could include up to the following:

- 1,850 square feet of new or expanded buildings at the Nature Center, Maintenance Area, and picnic area #13;
- 6,000 linear feet of new sidewalks;
- 5,100 square feet of new courtyard at the Maintenance Area;
- 10,000 square feet of new, horse turnout space;
- 22,000 square feet of permeable, new roadway in the Maintenance Yard; and
- 58,000 square feet of native habitat restoration at the US Capitol Stones area behind the Maintenance Yard.

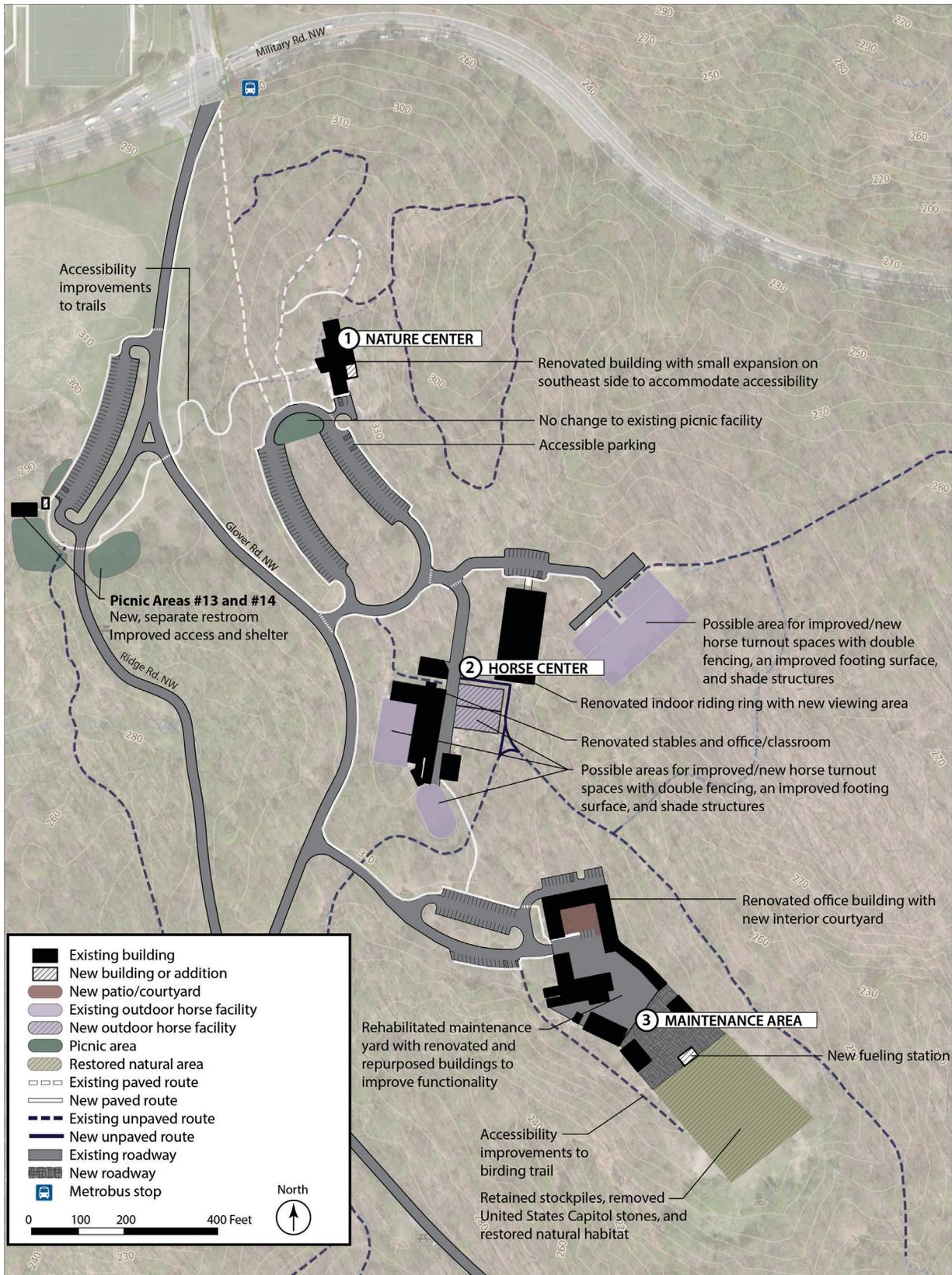


FIGURE 3. MAP FOR ALTERNATIVE 2 – FIX IT

## Nature Center

Specific improvements proposed under this alternative include the following:

- The upper floor of the Nature Center would be reconfigured to provide a larger lobby and sales area and larger accessible restrooms. The exhibit room would also be redesigned and reduced in size, and the small staff stairway and some corridors would be removed. In addition, an outdoor deck would be added at the back of the building to support exhibits and events.
- Universal accessibility would be provided on all floors.
- An elevator with wrap-around stairway would be constructed on the southeast side of the building.
- Design elements such as using bird-friendly transparent glass would be incorporated to mitigate impacts to the historic structure and birds and open up views of the park.
- The planetarium floor would be raised to improve accessibility and eliminate the need for ramps and stairs, and storage space would be added. New seats, lighting, electrical, and HVAC systems would also be installed, and the dome would be improved to allow for better resolution of planetarium projections.
- On the lower level of the Nature Center, flooding would be addressed, and the angled auditorium floor would be leveled to create a universally accessible, multipurpose room. A small, catering kitchen and new, accessible restrooms would be added to support use by groups.
- A total of approximately 700 square feet would be added to the Nature Center on the northwest and southeast side of the building.
- The existing patio on the lower level and outdoor access ramp would be repaired, and the overhead cover from the second upper floor deck would provide a protected outdoor classroom space.
- As a result of the northwest building expansion, and depending on the extent of the expansion, three mature trees—including a dogwood planted when the building was under construction and up to two chestnut oaks—would be removed. The root zones of a chestnut oak and a red oak could also be impacted.
- A small portion of the demonstration “water-wise” garden would be removed as a result of the southeast building expansion.

## Horse Center

In this alternative, the Horse Center would continue to be managed and run by a concessioner, and no new development would occur outside of the concessioner land assignment. Existing buildings would be maintained as they currently function and are configured. Proposed actions under this alternative include the following:

- Riding surfaces would be repaired and improved within the indoor riding ring and outdoor turnouts.
- Two new, 50- by 100-foot outdoor horse turnouts would be constructed to support the safety and health of horses.
- Indoor and outdoor public viewing areas and interpretive waysides would be added for visitors.
- The indoor riding ring would be reconfigured within the current building size to improve riding and viewing conditions.

- Double fencing and shade structures would be added to outdoor horse turnouts.
- Benches with views to the horse-riding areas and new waysides welcoming visitors and interpreting current and historic uses of horses within the park would be installed.
- New signage and waysides would welcome existing and new users and visitors, and additional interpretive and recreational programming and volunteer programs would encourage visitors to remain in the area.

The northernmost proposed turnout area would result in the removal of approximately ten mature trees covering approximately 0.2 acres. Construction of the southernmost proposed turnout space would result in the removal of a mowed grass area in addition to limited meadow habitat on the eastern edge.

## **Maintenance Area**

In this alternative, the Maintenance Area would be rehabilitated to improve functionality for park maintenance operations. Maintenance Yard facilities would be repaired, and interior areas would be reconfigured and reprogrammed to more effectively meet functional and operational needs and address accessibility. Energy-efficient mechanical building systems would be installed to improve functional use, reduce energy use, and lengthen the life of the systems.

Specifically:

- The stonecutter shed would be converted into a mechanic shop.
- The waste and recycling area would be covered to address environmental concerns.
- The existing fueling station would be removed and a new fueling station would be constructed in the south end of the yard.
- The Maintenance Yard would be paved on the southern end, adding 22,000 square feet of permeable surface pavement.
- Stockpiles outside of the fencing would be retained in their current location.
- The United States Capitol stones would be removed and the 58,000-square-foot area, currently occupied by the stones, would be restored to natural habitat.
- The Maintenance Yard office building would be repaired and the interior reconfigured with new offices, meeting spaces, restrooms, lockers, and showers.
- A landscaped courtyard, up to 5,100 square feet in size, would be constructed between the east and west wings, and could feature a raingarden for stormwater management.
- Office spaces would be reconfigured to provide a more organized and logical set up of offices and shared spaces.

## **Other Site Improvements**

In this alternative, other site improvements are proposed to enhance visitor recreational and learning opportunities and focus on universal accessibility, safety, and pedestrian connections to facilities within the Nature Center Complex. These include the following

- An accessible stone surface and some cribbing would be added to the informal 600-foot birding trail on the west side of the Maintenance Yard fence.
- Approximately 1.2 miles (6,000 linear feet) of four-foot-wide paved paths would be constructed. One would run between the picnic areas and the Nature Center. North of the Nature Center, the wheelchair-accessible interpretive nature trail would be extended

into a loop. Another would run from the south end of the Horse Center to the north parking lot at the Maintenance Area. Lastly, to connect pedestrians with site facilities and the bus stop on Military Road, new sidewalks would be constructed along Glover Road NW and between the Nature Center, Horse Center, picnic areas, and Maintenance Area. The majority of lands on which newly paved paths would be constructed are maintained as mowed grass within the right-of-way.

- Wayfinding signs and park information would be provided at site facilities, trails, and nearby bus stops.
- The picnic shelter at picnic area #13 would be repaired and other picnic sites improved to address accessibility.
- Restrooms would be constructed at picnic area # 13.
- Lighting features would be improved, with new fixtures that meet current national electric codes or other NPS preferred lighting standards installed along sidewalks and paths.

### **ALTERNATIVE 3: PREFERRED ALTERNATIVE**

Under alternative 3, the Nature Center Complex would see some upgrades intended to enhance visitor opportunities at the Nature Center, Horse Center, and surrounding area (figure 4). In addition, areas that support park operations, such as the Maintenance Area, would be reorganized and expanded for improved efficiency and functionality. Similar to alternative 2, buildings would be reconfigured, repaired, and/or repurposed to improve functional use and upgrade visitor and staff accommodations. Universal accessibility and safety improvements in the Nature Center Complex would be completed, and deferred maintenance would be addressed. The Nature Center Complex would use and showcase sustainable green solutions and technology, minimize damaging impacts to the environment, and strive for net zero emissions. Informational signs, new paths, and new connecting trails would help facilitate pedestrian connections between facilities. In this alternative, the Miller Cabin would be relocated into the area.

As in alternative 2, parking lots would remain the same size and stormwater management treatments would be pursued in accordance with the District of Columbia 2013 Stormwater Management regulations and guidelines.

For this alternative, the maximum new development could include up to the following:

- 21,600 square feet of new or expanded buildings at the Nature Center, Maintenance Area, and picnic areas #13 and #14;
- 6,000 linear feet of new sidewalks (same as alternative 2);
- 5,100 square feet of new courtyard at the Maintenance Area (same as alternative 2);
- 10,000 square feet of new horse turnout space (same as alternative 2);
- 27,000 square feet of permeable new roadway in the Maintenance Yard and at the new bus drop off at the Nature Center; and
- 40,000 square feet of native habitat restoration at the US Capitol Stones area behind the Maintenance Yard.

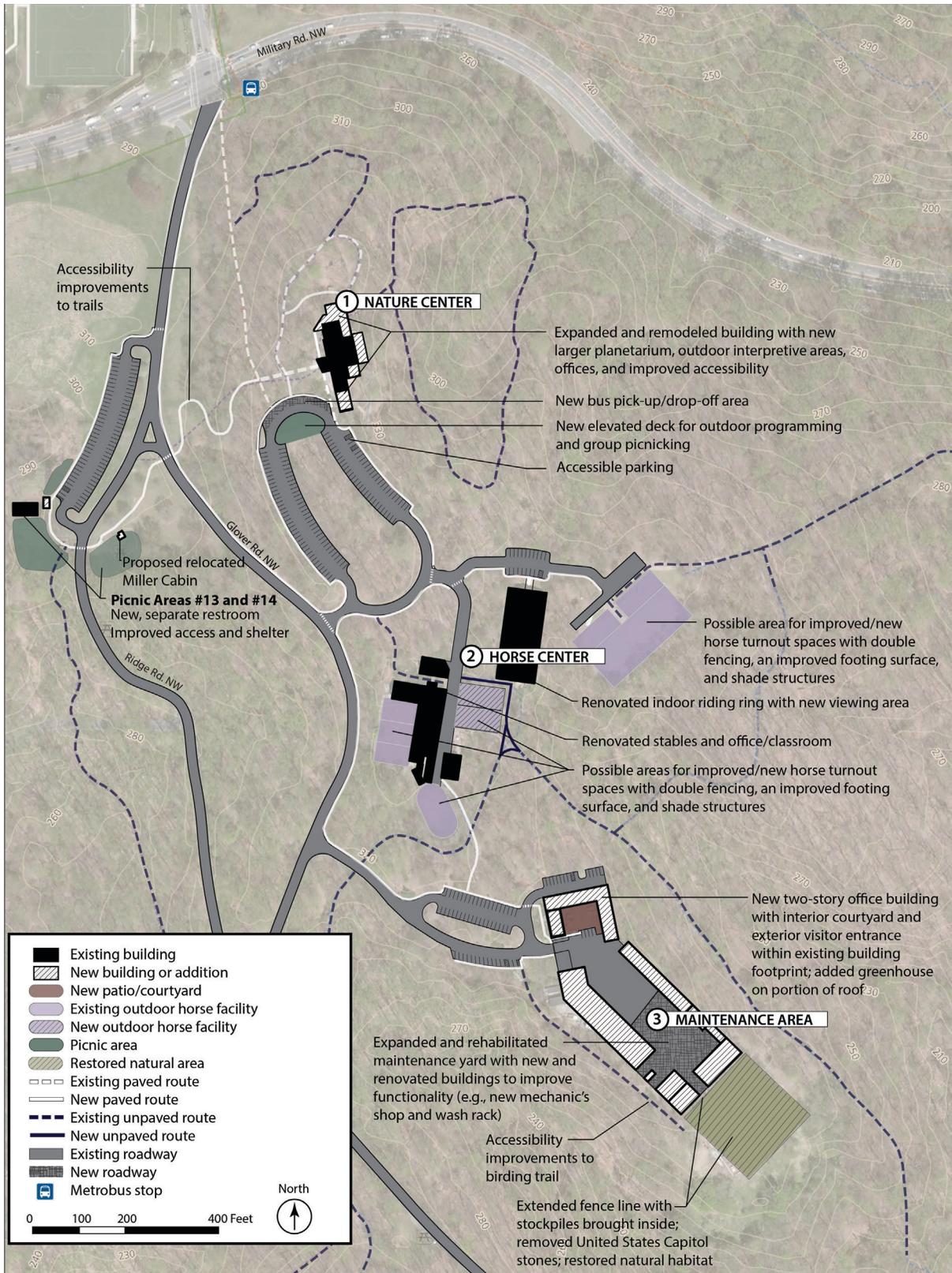


FIGURE 4. MAP OF PREFERRED ALTERNATIVE

## Nature Center

In this alternative, park staff would consider rebranding the Nature Center as the Rock Creek Park Visitor Center, to better reflect what is available in the space. The building would receive interior and exterior reconfigurations and additions intended to increase the use, enjoyment, and lifespan of the facility. The main level would be reconfigured with new offices, new restrooms, an expanded planetarium, and a new outdoor deck.

Specifically:

- The building would be expanded on the north and northeast sides to accommodate a larger planetarium (90 to 100 seats), which would be served by a larger lobby and queuing area.
- The floor of the planetarium would be raised to the same level of the exhibit area to eliminate the need for a ramp or second elevator.
- New seats, lighting, electrical, and HVAC systems would be installed in the planetarium.
- As in alternative 2, larger accessible restrooms would be provided.
- On the upper level of the building, a new glass-walled multipurpose corridor and small outdoor interpretive deck would be constructed within the current footprint of the lower level concrete patio to showcase views and replace lost space in the indoor exhibit area.
- As in alternative 2, an elevator would be installed and wrap-around stairway constructed on the southeast side of the building, connecting upper and lower levels while making use of bird-friendly glass to mitigate impacts to the historic structure and birds.
- As in alternative 2, on the lower level, the angled auditorium floor would be leveled to create a universally accessible, multipurpose room, and a small catering kitchen and new accessible restrooms would be built to support groups.
- An expansion on the south end of the building would accommodate new interpretive staff offices. The southern end expansion would be constructed on previously disturbed land currently used as a parking lot.
- Approximately 6,700 square feet would be added to the Nature Center on the north, east, and south sides of the building.
- The outdoor access ramp could be replaced with a glass-walled ramp to the auditorium, and the patio would be used as protected outdoor classroom space.
- An elevated deck would be constructed, within the existing open space within the parking lot island, to host interpretive programming and group picnicking. Although the area currently supports group picnicking, the elevated deck would protect adjacent vegetation and reduce compaction of soils and tree roots.
- A small expansion of the parking lot on the north end of the parking lot would allow for bus pickup/drop-off, as shown. One mature white oak may need to be removed, and a fire hydrant and water fountain in the area would need to be relocated to accommodate this 3,000 square foot area.
- As a result of the building expansion on the north and northeast corner, six mature chestnut oaks and three small trees (dogwood, holly, and a redbud) would be removed.
- A small portion of the demonstration “water-wise” garden would be removed because of the southeast building expansion. As a result of this expansion, two small trees would be removed and the root area of a mature red oak would likely be impacted.

## **Horse Center**

In this alternative, the Horse Center would receive the same treatments as those proposed in alternative 2.

## **Maintenance Area**

In this alternative, the Maintenance Area would be expanded and rehabilitated to improve functionality, consolidate park staff to one location, and store additional park property (e.g., the fence would be expanded to include stockpiles currently outside the fence). A new two-story office building would be constructed on the footprint of the existing building and have a public-facing front entrance. The new office building would provide additional offices for staff. It could consolidate park headquarters, maintenance, and resource staff located throughout Rock Creek Park. Staff located at the Peirce-Klinge Mansion would have offices in the new building, and the park would explore leasing opportunities for the mansion. Energy-efficient mechanical building systems would be installed to improve functional use, reduce energy use, and lengthen the life of the systems.

Specifically:

### **Maintenance Yard.**

- The existing maintenance shop building and covered waste and recycling buildings on the site would be replaced with new structures.
- The new maintenance shop building would consolidate many of the disjointed structures in the Maintenance Yard and provide efficient use of limited space.
- A new, covered outdoor storage structure to house and protect park vehicles, heavy equipment and materials, snowplow blades, waste, and salt would be built, and a new vehicle and heavy equipment wash rack would be constructed on-site. Expansion of sewer facilities may be required for the equipment wash rack.
- As in alternative 2, a new fueling station would also be constructed in the south end of the yard.
- The Maintenance Yard would be expanded 75 feet to the southeast, into the area currently housing stockpiles and the United States Capitol stones. Stockpiled materials (e.g., trail tread mixture, topsoil, riprap, and boulders) located outside of the Maintenance Yard fencing would be brought inside the fencing with an expansion of the fencing, and the 24,000 square foot area would be hardened with a permeable surface.
- As in alternative 2, the United States Capitol stones would be removed and the remaining portion of the 40,000-square-foot area restored to natural habitat.
- The informal birding trail outside the Maintenance Yard would receive the same treatments as in alternative 2.

### **Maintenance Yard Offices.**

- A new two-story office building would be constructed on the footprint of the existing building and have a public-facing front entrance.
- As in alternative 2, a landscaped courtyard of approximately 5,100 square feet would be constructed between the east and west wings of the office building.
- A 1,800-square-foot greenhouse for native plants would be constructed on the roof of the building.

- While the building footprint would remain the same, the additional second story would add 9,300 square feet of space.
- Consolidated office spaces would allow for greater numbers of park staff to be in close proximity to each other, facilitating communication. Meeting space would provide staff with opportunities to meet with larger groups in one room.
- Expanded, organized, and new facilities and systems in the Maintenance Yard would allow for staff to perform duties in a more efficient way.

#### **Other Site Improvements.**

- This alternative would recommend the same treatments as alternative 2 for other areas in the Nature Center Complex, with new sidewalks and paths, updated picnic facilities, improved wayfinding and signage, and new restrooms.
- The historic Miller Cabin would be relocated from its current location in a floodplain near the east bank of Rock Creek (outside the project area) to picnic area #14, and would be repurposed for new exhibits and programming. Any ground disturbance associated with the move of the Miller Cabin to this location would require archaeological investigation and clearance.
- A new accessible route would connect the cabin to parking at picnic area #13 and the Nature Center.
- Lighting features would be improved, with new fixtures that meet current national electric codes or other NPS preferred lighting standards installed along sidewalks and paths.

### **ALTERNATIVES DISMISSED FROM FURTHER CONSIDERATION**

The National Park Service considered a range of alternatives for the Nature Center Complex that were ultimately dismissed from further consideration.

#### **Escape from the City**

One alternative considered but dismissed proposed significant alterations to the Horse Center and Maintenance Area, with building and site footprints expanded past the concessioner land assignment for the former and well into the area currently housing the United States Capitol stones for the latter. This alternative included expanded parking lots to house food service and support a new Horse Center indoor/outdoor riding ring, office and classroom, pasture, demonstration gardens, and renovated stables. Some Horse Center facilities were proposed to be moved elsewhere on-site, such as the manure/muck storage bin, to be away from pedestrian facilities. The large Maintenance Yard was proposed to have a consolidated maintenance shop in the center of the yard with additional new facilities on the perimeter of the yard. The concept also proposed additional new trail connections.

During the scoping process, this alternative was dismissed from further consideration by the park and region on the basis that it was not an escape from the city, but in fact would bring additional city life and services into the site. It was argued that large expansions to existing footprints would likely cause too great an environmental impact, disrupting or damaging sensitive species. It was also recognized that the needs and health of horses were not taken into account, and significant alterations to all three areas (i.e., Nature Center, Horse Center, and Maintenance Area) was not economically feasible or justified. Furthermore, it was believed that

this concept and Green Campus (below) were too similar and that both presented unneeded and unrealistic proposals.

### **Green Campus**

Another concept considered during planning proposed similar alterations to facilities and the site as proposed in Escape from the City went further to create a significant visitor attraction. The Nature Center, Horse Center, and Maintenance Area were all proposed to undergo significant changes, with a large new planetarium and new canopy walk proposed at the Nature Center, two new indoor/outdoor riding rings and other new facilities at the Horse Center, and an expanded Maintenance Yard with all new facilities at the Maintenance Area. The Miller Cabin was proposed to be moved near picnic area #14, where it would have been used in tandem with a new amphitheater for new programming opportunities. Parking was proposed to be expanded at the Horse Center and Maintenance Area to support new visitor use.

This concept was dismissed from further consideration for most of the reasons that Escape from the City was dismissed, along with additional arguments that its implementation would require substantial construction, cause even greater damage to the environment (e.g., trees, habitats, and birds), and place an additional management and maintenance burden on park staff.



## Chapter 3: Affected Environment and Environmental Consequences

This section includes descriptions of the affected environment, which document the existing conditions of the Nature Center Complex and surrounding area. These descriptions serve as a baseline for understanding the resources that could be impacted by implementation of the proposed project. This section also includes an analysis of the environmental consequences or “impacts” of two action alternatives and the no-action alternative and immediately follows the affected environment descriptions for each resource topic. The resource topics presented in this section correspond to the planning issues and concerns described in the “Purpose and Need” section of this environmental assessment.

In accordance with the Council on Environmental Quality regulations, the environmental consequences analysis includes the direct, indirect, and cumulative impacts (40 CFR 1502.16). The intensity of the impacts is assessed in the context of the park’s purpose and significance and any resource-specific context that may be applicable (40 CFR 1508.27). Where appropriate, mitigating measures for adverse impacts are described, and their effect on the severity of the impact is noted. The methods used to assess impacts vary depending on the resource being considered but are generally based on a review of pertinent literature and park studies, information provided by on-site experts and other agencies, professional judgment, and park staff knowledge and insight.

### **CUMULATIVE IMPACTS METHODOLOGY**

This environmental assessment also considers cumulative impacts, namely “the impact on the environment which results from the incremental impact of the action when added to other past, present, or reasonably foreseeable future actions regardless of what agency (federal or nonfederal) or person undertakes such other actions” (40 CFR 1508.7). Cumulative impacts have been addressed in this environmental assessment by resource and are considered for the no-action alternative and the action alternatives. Because some of these actions are in the early planning stages, the evaluation of the cumulative impact is based on a general description of the projects. The projects considered in the cumulative impact analysis are discussed in the following sections.

### **Installation of Fire Suppression Sprinkler System at the Nature Center, Horse Center, and Maintenance Area**

The National Park Service approved a plan in 2011 to install fire suppression sprinkler systems at these facilities by constructing a new water main. The water main would run from Military Road NW to the Nature Center, the Horse Center, and the Maintenance Area. Its installation would roughly parallel an existing (but limited) water main that already serves these facilities. To

minimize the ecological impact (e.g., felled trees), approximately 2,430 linear feet of water main piping would be installed using a jack-and-bore approach with directional, underground drilling. Boring pits would be located in previously disturbed areas, if possible. The uphill slope from Military Road to the three facilities would reduce water pressure in the new water main, which would compromise the efficacy of the sprinkler systems. To fix this condition, a diesel water pump would be installed at each location to increase water pressure to that location's fire suppression sprinkler system. The first pump would be installed at the Horse Center. To accommodate this pump, the former tack room at the Horse Center would be enlarged and extended outward from the current building, maintaining the existing roofline to preserve architectural continuity. Diesel water pump installations at the Maintenance Area and Nature Center would be postponed pending a performance review of the pump at the Horse Center and the availability of additional funding.

A substantial portion of this work was completed in 2015. The contract for the completion of this work has been awarded by the National Park Service in 2018 and is scheduled to be finished in spring of 2019.

### **AT&T Wireless Telecommunication Facilities Colocation**

AT&T has applied to the National Park Service to establish wireless telecommunications facilities at two existing Verizon Wireless monopoles in Rock Creek Park. One of the monopoles is located at the Rock Creek Park Maintenance Area at 5000 Glover Road NW, where AT&T proposes to install new antennas on the monopole and place related equipment at the base of the monopole.

### **Beach Drive NW Rehabilitation**

This rehabilitation project includes full-depth pavement reconstruction, which requires:

- Excavating the entire area and placing a new gravel base before new asphalt paving;
- Improvements to pedestrian and bicycle trails in collaboration with the District of Columbia Department of Transportation;
- DC Water storm drain rehabilitation and improvement projects;
- Installation and upgrades of raised pavement markers, centerline rumble strips, guardrails, and road signs to provide safer road conditions for drivers;
- Parking area reconstruction and rehabilitation;
- Traffic signal and streetlight replacement; and
- Rehabilitation of six bridges.

The last phase of this rehabilitation project—the portion of Beach Drive between Military Road NW and the Maryland/District of Columbia line—is underway and is scheduled to be completed in 2019.

### **Reconstruction of Oregon Avenue, NW**

The design for the reconstruction of Oregon Avenue NW from Military Road to Western Avenue, and Western Avenue NW from Oregon Avenue to 31st Street NW, addresses current transportation deficiencies and related environmental concerns as outlined in the 2012 Oregon Avenue Environmental Assessment. The District of Columbia Department of Transportation is currently analyzing impacts of multiple adjacent projects to re-sequence the original

construction phasing to avoid conflicts with concurrent construction projects within the corridor.

### **Broad Branch Road Reconstruction**

The District of Columbia Department of Transportation and the Federal Highway Administration are proposing rehabilitation of Broad Branch Road between Linnean Avenue NW and Beach Drive NW. Supplemental engineering and right-of-way surveys are currently underway. Upon completion of these supplemental efforts, the District of Columbia Department of Transportation and the Federal Highway Administration will select the preferred alternative.

## **HISTORIC STRUCTURES AND HISTORIC DISTRICT**

### **Affected Environment**

This section describes the historic structures and districts present at the site and in the surrounding area. This information is derived from the National Register, the DC Inventory, determinations of eligibility, historic photographs, maps, other documentation, site reconnaissance, and observation. The National Park Service has defined the area of potential effect to be bounded in the north by Military Road, on the west by 27th and Broad Branch Road, on the south by Cross Trail 7, and on the east by Beach Drive. The area of potential effect includes three listed resources in the National Register and/or the DC Inventory, including the Nature Center, Horse Center Area, and the Rock Creek Park Historic District. Each of these properties is described in the text below, and their locations are provided on figure 1.

**Nature Center (Visitor Exhibition Center and Planetarium).** Integrated into the surrounding landscape, the Rock Creek Park Nature Center and Planetarium, designed by architect William Haussmann in 1959, is representative of NPS Mission 66-era design. The Nature Center incorporates the structural elements of the existing caretaker's dwelling constructed in the 1930s. The Nature Center is composed of three distinct, but contiguous, sections defined by the roofline: there is a shallow gable roof on the southern end, followed by V-shaped shed roofs at the center, and a pyramidal roof on the northern end.

Set on a brick foundation, the wood-framed southern section incorporates the existing 1936 caretaker's dwelling. The six-bay section is clad with a combination of stone veneer and vertical wood siding. Typical fenestration consists of 1/1 windows with precast concrete sills. The southeast corner of the block features a recessed porch. The interior consists of offices and a small reading room.

The centrally located, V-shaped shed roof section serves as the focal point and primary entrance of the Nature Center. In this section, architect William Max Haussmann successfully integrated the building into its surrounding environment, while incorporating character-defining features of the Modern Movement and Mission 66. The two-story section is banked into a hill, creating the effect of a single story from the façade. Set on a concrete-block foundation, the masonry structural system is primarily clad with stone veneer. The building is capped with symmetrical shed roofs that reflect one another to create a V-shaped roof plan, a form widely used by modern architects. The eastern shed encompasses the majority of the interior, while the western shed extends over the interior lobby and exterior concrete porch. As the shed roof rises above the porch, the roof is extended farther to the west at its northern end, resulting in an angled portico. Three slender posts and a stone pier support the roof. The porch provides access to the

main entry, consisting of elongated, double-leaf, aluminum-framed glass doors with single-light sidelights and a four-light transom. To the north of the porch, the stone-veneered wall is pierced with 1-by-1, slider windows with a continuous precast stone sill. Both the first and second stories are visible on the rear elevation. The walls are not clad in stone veneer, thereby exposing the concrete-block structural system. The first-story, wood, viewing deck accessed from the exhibition space defines the rear elevation. From the deck, a wood stair leads to the nature trail east of the Nature Center.

A small, recessed hyphen with a single-leaf door connects the V-shaped shed roof section with the northern end pyramidal roof section. The one-story, northern section houses the planetarium. Set on a concrete foundation, the masonry building is clad with vertical wood siding and has no fenestration or additional ornamentation.

The Nature Center, which was listed as a contributing element to the Rock Creek Park Historic District National Register Amended Nomination (Draft 2015), retains its integrity as it continues to reflect its historic period of significance. The building remains in its original location and setting with no obtrusions from new development. Typical to visitor centers, alterations include the infill or replacement of a number of the doors and windows, as well as several replacements of exhibits. The character-defining massing, roof, covered entrance, deck, and stone and wood veneer, however, remain intact. The building continues to house the Nature Center and Planetarium, thereby retaining its integrity of association and feeling.

**Horse Center Area.** Funded by the Mission 66 initiative, the Rock Creek Horse Center was constructed by the National Park Service in 1959 and was the first public stable within the limits of Rock Creek Park. In 2015, it was listed as a contributing element to the Rock Creek Park Historic District National Register Amended Nomination (Draft 2015). The stable was constructed from an architectural plan developed by the Engineering Branch of National Capital Parks.

The Rock Creek Horse Center is located south of Military Road NW and east of Glover Road NW. A single access road leads to the Nature Center and the Horse Center. Accommodating 57 horses as of 2018, the building features an L-shaped plan. The concrete block structural system is typically exposed on the lower field of the wall and clad with vertical redwood siding above the window openings and in the upper gable ends. Dormer windows pierce the gable roof and a cupola is located at the intersection of the gable roofs. The stable includes a lobby, tack room, office, storage, and bathrooms. A \$104,000 contract was awarded to Sun Construction Company in 1958 to erect the structure.

The Rock Creek Horse Center is also served by Equitation Field, located south of the Horse Center area adjacent to Ridge Road and accessible by the White Horse Trail. The field has been located at this present location since 1945. Both resources continue to reflect their historic period of significance. The Horse Center area also includes a training ring constructed in 1972 and a maintenance shed constructed in 2010 that are considered noncontributing resources because of the lack of integrity and the date of construction, respectively.

The Rock Creek Horse Center is open to the public every day of the week and offers trail rides, riding lessons, pony rides, boarding facilities, and seasonal day camp sessions. The Horse Center averages 21,250 visitors per year with the highest use periods occurring from April through October. Trails extending from the Horse Center provide access to horse riding trails throughout the park. The main access trail extends southeast from the Horse Center toward

Ross Drive NW and Rock Creek just to the east of the Maintenance Area. This is the most heavily used horse trail in the park.

**Rock Creek Park Historic District.** The Rock Creek Park Historic District was listed in the National Register of Historic Places in 1991, under National Register Criteria A, B, and C, with architectural and historic qualities and associations related to nine areas of significance and a period of significance from 1791 to 1941. As described in the 1991 registration form, the core of the Rock Creek Park Historic District is the creek itself and the picturesque scenery surrounding it. The original historic district conformed to the boundaries of Public Reservation 339 and included approximately 1,429 acres of natural forest growth as well as a little more than 310 acres of development including recreational facilities, roads, trails, structures, and sites. The Rock Creek Park Historic District retains integrity of location, setting, design, materials, workmanship, feeling, and association.

The Rock Creek Park Historic District was listed in the DC Inventory (November 8, 1964) and National Register (October 23, 1991). An update of the nomination, in draft form as of 2018, proposes expanding the Rock Creek Park Historic District boundaries to include several adjacent and related public reservations considered part of Rock Creek Park: Reservations 356, 402, 432, 433, 308A, 545, 635, 630, and 563. Formed between 1913 and 1950, the added reservations serve as access routes into the park and as a means of preserving Rock Creek's watershed. Reservation 308A is a correction related to the inclusion of the Peirce Springhouse; the original nomination incorrectly recorded it as being within Reservation 339. The reservations include park land that is both contiguous and noncontiguous to Reservation 339. Formed under several planning bodies, including the National Capital Park Commission—later renamed the National Capital Park and Planning Commission—and the Maryland-National Capital Park and Planning Commission, an administrative reorganization brought these bordering reservations into the Rock Creek Division of the National Park Service's National Capital Parks in 1976.

Additional research and documentation projects have required the re-evaluation of several resources for their contribution to the park. These resources include cultural landscapes, archeology, trails, roads, and bridges located in both the historic district's original boundaries and within the added reservations. Resources from the post-World War II and the Mission 66 periods that are located within the existing boundaries of the Rock Creek Park Historic District have also been re-evaluated for their contribution to Rock Creek Park.

**Joaquin Miller Cabin.** The Miller Cabin is located at picnic area #6, approximately 75 feet west of Beach Drive and approximately one-half mile north of Military Road NW. The one-and-a-half story building is sited at the north end of a large meadow-like picnic grove. Noted American poet Joaquin Miller (1837-1913) built the L-shaped cabin in 1863 at a site near the intersection of 16th and Belmont Streets NW across from what is now Meridian Hill Park. Historic photographs indicate that Miller erected his house on a log foundation with log walls tied together by double-saddle notching and concrete chinking. The gable ends of the building were finished with smaller vertical timbers, and the steep-pitched, cross-gabled, hipped roof was covered by shingles. All fenestration openings were trimmed with simple frame surrounds, sills, and lintels and filled with six-over-six window sash. A fieldstone fireplace was built at the center of the cabin, and the protruding stack section was common bond brick with a stepped decorative corbel.

Between 1911 and 1912, the cabin was disassembled and moved to its present site and dedicated on June 2, 1912. Newspaper coverage of the building's move and reconstruction in Rock Creek Park indicates great care was taken in dismantling the building and replicating its appearance. Original building fabric was lost in the move, but Miller's cabin was reconstructed with a high degree of visual accuracy in terms of its design, materials, and workmanship. The log cabin was rebuilt at its present site on a concrete foundation with its principal elevation facing south. Paired windows with six-over-six sash are on the first level of the north and south elevations and single six-over-six gable-end windows light the attic story. In addition, there is an identical single window on the stepped back wall of the main elevation of the L-shaped cabin. Historic photographs indicate this fenestration pattern appears identical to that built in 1883. The remaining openings are simple framed doorway entries on the east side of the cabin. These doors provide access to the two rooms in the building. An L-shaped flagstone walk creates an outside patio connection between the two doors. The cabin was listed as a contributing feature to the Rock Creek Park National Register District in 1991.

## **IMPACTS OF ALTERNATIVE 1: NO ACTION**

Under the no-action alternative, the Nature Center Complex would be maintained and repairs would continue to the extent practicable under current NPS management practices and in accordance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties*. No new impacts would occur.

### **Cumulative Impacts**

Since there are no new impacts to historic structures and districts under this alternative, there are no cumulative impacts.

### **Conclusion**

Under the no-action alternative, there would be no new impacts to historic resources or to the Rock Creek Park Historic District.

## **IMPACTS OF ALTERNATIVE 2: FIX IT**

### **Nature Center**

In this alternative, there would conditionally be no adverse effect to the overall integrity and character-defining features of the Nature Center. While restoration and rehabilitation actions could potentially cause adverse impacts, these impacts could be minimized to the extent possible by using construction means and methods that conform to the *Secretary of the Interior's Standards for the Treatment of Historic Properties*. Specifically, the distinct mid-century modern, flat shape and horizontal massing of the building; the large, sweeping roof overhang forms of the front entrance; and other character-defining features of the exterior's west façade would remain. On the interior, the elevator and wrap-around stairway could be designed and installed to minimize the impact on the historic fabric and the historic character of the building, in part by potentially using an existing, unused elevator shaft in the structure. The expansion of the structure, as well as the modifications to the lower level that improve accessibility and address flooding, would be done minimally and sensitively to have the least amount of effect possible on the association and feeling of the historic district. Installation of lighting, electrical, and HVAC systems would introduce new technological elements to the historic character of the structure

but would have a negligible impact on the major, character-defining features. New building systems would be designed and installed in existing utility pathways wherever feasible, and new penetrations of walls would be minimized and hidden from view as much as possible. While building additions, including modifications to the lower level that improve accessibility and address flooding, would add new elements to the historic district viewshed, these elements would be largely obscured by the surrounding forest. Any potential impacts could be further reduced by making design and building materials choices that are compatible with the design, association, and feeling of the historic district. Updating the patio and outdoor access ramp could introduce modern materials; however, all efforts would be made to design the spaces with minimal impact to the historic fabric in ways that align with the intended use and functionality of that space.

### **Horse Center**

There would conditionally be no adverse effect to the overall integrity and character-defining features of the Horse Center. The majority of the actions addressed in this alternative would not increase the existing footprint at the Horse Center. Renovations to the indoor riding ring would require the removal of minimal historic materials but would not affect the overall integrity or compromise character-defining features of the structure. Upgrades to the building systems would introduce modern materials to the building; however, new building systems would be designed and installed in existing utility pathways wherever possible, and new penetrations of walls would be minimized and hidden from view as much as possible. The new small viewing area would add new elements within the viewshed, but the impact would be minimal because of the forested nature of the area. The two, new, 50- by 100-foot turnouts would increase the impervious surface area and could compromise the historic setting; however, sensitive design, including the placement of trees near the perimeter, would minimize the impact on the natural environment.

### **Rock Creek Park Historic District**

Long-term impacts on the Rock Creek Park Historic District include the removal of exterior historic material visible from within the historic district, as well as building additions that change the exterior appearance of structures. However, since the Nature Center and the Horse Center would still maintain their overall spatial relationship within the historic district, and since the Miller Cabin would remain in its present location, the overall impacts to the integrity of the historic setting would be minimal.

**Archeology.** Alternative 2 would involve the ground clearing for installation of sidewalks, excavation for foundations for building expansion at the Nature Center, and potentially excavation of areas for stormwater management structures necessary to comply with the District of Columbia's 2013 Stormwater Management Rule. Where feasible, efforts would be made to avoid ground disturbance below the first 8 inches of soil (the till layer, which has been disturbed from previous agricultural and land clearing activities), and known and discovered archaeological sites would be avoided. NPS archaeologists would monitor ground-disturbing activities during the initial subsurface ground disturbance caused by heavy equipment in the project area. If previous unknown cultural resources are discovered during construction, work will stop in the immediate vicinity, the resource protected, and the District of Columbia Historic Preservation Office would be notified within 24 hours of discovery. If, in consultation with the state historic preservation office, it is determined that the resource is significant and warrants preservation or treatment, the location of the cultural resource will be documented. Every

attempt will be made to avoid the discovery by construction, but if it cannot be avoided, the National Park Service will consult with the District of Columbia Historic Preservation Office to develop a mitigation plan and mitigate the effects of the undertaking on the historic property.

### **Cumulative Impacts**

In combination with other past, present, and future actions at the Nature Center Complex, the implementation of alternative 2 would contribute minimally to overall adverse cumulative impacts in the project area. Additions to and rehabilitation of the Nature Center and the Maintenance Yard would only minimally impact the viewshed of the Historic District. Other project actions not related to the development concept plan, such as the installation of the AT&T cell tower equipment, could compromise the integrity of the Rock Creek Park Historic District to a greater degree. The park's building fire suppression project, which would install diesel pumps at the Nature Center and Horse Center, could alter historic fabric of structures and viewsheds in the project area, contributing to overall cumulative impacts.

### **Conclusion**

Under alternative 2, all restoration and rehabilitation actions at the Nature Center have the potential to result in adverse impacts because of alterations in the original design and materials. However, all construction work would conform to the *Secretary of the Interior's Standards for the Treatment of Historic Properties*. Actions at the Nature Center and the Horse Center would be conducted to minimize the effect on the integrity of the resources and character-defining features. Actions at the Nature Center would use construction materials and methods that align with the Mission 66 architectural style. All actions related to construction would require temporary visual disruptions within the area of potential effect because of the presence of construction equipment and materials. However, these impacts would only last for the duration of construction and would result in no permanent adverse effects on the historic structures. Implementation of alternative 2 would contribute minimally to the adverse cumulative impact on the historic structures within the area of potential effect (APE) and to the Historic District.

## **IMPACTS OF ALTERNATIVE 3**

### **Nature Center**

In this alternative, there would conditionally be no adverse effect to the overall integrity and character-defining features of the Nature Center. There would be interior and exterior renovations as well as additions to the structure, the most significant being the expansion of the Nature Center on the north, northeast, and south elevations. While these actions could potentially cause adverse impacts, these impacts could be minimized by using means and methods that conform to the *Secretary of the Interior's Standards for the Treatment of Historic Properties*. In the interior of the building, the addition of the elevator and wrap-around stairway would be sensitively installed, placing these elements in areas that could minimize impacts to the building's historic character and fabric. The lower-level renovations to improve accessibility could impact elements that help define the building's historic Mission 66 character. However, this work could be designed and built using construction materials similar to the original Mission 66 design, further minimizing any adverse effects. Installation of lighting, electrical, and HVAC systems could introduce new technological elements to the historic character of the structure. However, the new building systems would be designed and installed in existing utility pathways wherever feasible, and new penetrations of walls would be minimized and hidden

from view as much as possible. The visual impacts of the new, glass-walled, multipurpose corridor and small, outdoor, interpretive deck and access ramp could be minimized or mitigated by reducing the size of these structures to the minimum necessary and blending them in with the existing building through the use of appropriate materials.

### **Horse Center**

In this alternative, the Horse Center would receive the same treatments as those proposed in alternative 2.

### **Rock Creek Park Historic District**

Long-term impacts on the Rock Creek Park Historic District include the removal of exterior historic material visible from the historic district. The Nature Center and the Horse Center would still maintain their spatial relationship within the historic district and not compromise the integrity of the historic setting, thereby minimizing any impacts to the district. Relocating Miller Cabin (which is contributing to the Rock Creek Park Historic District) out of the Rock Creek floodplain would have a beneficial impact on the structure and to the Rock Creek Historic District, as it would prevent the deterioration and eventual loss of historic materials and potentially the structure itself.

**Archeology.** Alternative 3 would involve activities similar to alternative 2 with the exception of the Nature Center, where additional building expansion would take place. Similarly, where feasible, efforts would be made to avoid ground disturbance below the first 8 inches of soil (the till layer, which has been disturbed from previous agricultural and land clearing activities), and known and discovered archaeological sites will be avoided. Mitigation measures, similar to alternative 2, would be employed. The relocation of Miller Cabin to the Picnic Grove 14 could require construction of a slab or other support structures for the building. This would result in ground-disturbing activities.

### **Cumulative Impacts**

In combination with other past, present, and future actions at the Nature Center Complex and the Horse Center, the implementation of alternative 3 would contribute minimally to overall adverse cumulative impacts in the project area. Additions to and rehabilitation of the Nature Center and the Nature Center would be greater than in alternative 2. However, while more significant, alternative 3's actions would only minimally impact the viewshed of the Historic District. Other project actions not related to the development concept plan, such as the installation of the AT&T cell tower equipment, could compromise the integrity of the Rock Creek Park Historic District to a greater degree. The park's building fire suppression project, which would install diesel pumps at the Nature Center and Horse Center, could alter historic fabric of structures and viewsheds in the project area, contributing to overall cumulative impacts.

Under alternative 3, the removal of historic materials at the Nature Center and the Horse Center would only slightly contribute to the overall adverse cumulative effect to the viewshed within the district.

## **Conclusion**

The additions to the north, northeast, and southern elevations have the potential to adversely affect the historic character and character defining features of the Nature Center. However, through sensitive design and adherence to the *Secretary of the Interior's Standards for the Treatment of Historic Structures*, every effort would be made to minimize the effects. Overall, the Rock Creek Park Nature Center and the Horse Center would each maintain its historic character and integrity including its role as a contributing structure to the Rock Creek Park Historic District. Renovations inside the structures would impact the historic fabric but would be minimized to the extent possible through mitigation measures and sensitive design, and major character-defining features would not be affected. All actions related to construction would require temporary visual disruptions within the area of potential effect because of the presence of construction equipment and materials. However, these impacts would only last the duration of construction and would result in no permanent adverse effects on the historic structures. Implementation of alternative 3 would contribute the majority of the adverse cumulative impact on the historic structures and historic district within the area of potential effect and would contribute only slightly to the overall adverse cumulative effect to the viewshed within the district. Relocating the historic Miller Cabin out of the floodplain would have a beneficial impact on the Rock Creek Historic District but could require ground disturbance, which could impact archaeological resources.

## **WILDLIFE AND WILDLIFE HABITAT**

### **Affected Environment**

Common fauna likely to occur within Rock Creek Park include species adapted to disturbed habitat associated with an urban environment and transient species associated with forested habitat. According to the NPS species database, 208 species of birds, 51 species of mammals, 28 species of reptiles, 20 species of amphibians, and 19 species of spiders are present or probably present within park boundaries (NPS 2018).

The National Audubon Society and the American Bird Conservancy recognize Rock Creek Park as an important birding area because of its exceptional diversity of bird species during migration (Audubon Maryland/District of Columbia 2018). Within the project area, the area around the Horse Center and Maintenance Area has been the focus of a breeding bird census conducted by volunteers since 1948. The 65-acre census area is roughly triangular with the north edge generally extending along the Whitehorse Trail, while the west and east sides begin at the public stables and Joyce Road, respectively, and meet at picnic grove #21. The longevity of this site in an area of relatively undisturbed natural vegetation provides a baseline of relative abundance against which later data can be compared to determine if changes in bird populations are occurring. Typically, 22 to 24 species nest in this breeding bird census area in Rock Creek Park (unpublished data from the Rock Creek Park breeding bird census, 1997 through 1999). Ten species of flycatchers, 6 species of vireos, 7 species of thrushes, and 35 species of warblers have been documented in the Maintenance Area based on observer information (NPS 2012).

### **Impacts of Alternative 1: No Action**

Under the no-action alternative, current conditions and management of the Nature Center Complex area would remain unchanged. Native species that require deciduous forest habitats in relatively large, contiguous tracts would continue to benefit from the protection of most of the

Nature Center Complex area as relatively undisturbed woodland. The management activities that created attractive vegetation assemblages that support the high-quality habitat for birds around the Maintenance Area would continue.

### **Cumulative Impacts**

Because there is no anticipated impact on wildlife and wildlife habitat, alternative 1 would not contribute any cumulative effects.

### **Conclusion**

No on-site change to wildlife species abundance, diversity, or habitat availability would occur as a result of the no-action alternative. The no-action alternative would have no direct, indirect, or cumulative effect on wildlife and wildlife habitat.

### **Impacts of Alternative 2: Fix It**

As improvements proposed under this alternative would be modest and would generally remain within the footprint of existing development, construction activities may cause the localized, short-term displacement of individual animals but would not affect the viability of a wildlife population or assemblage either locally or park-wide. To minimize impacts, construction activities would be scheduled, to the maximum extent practicable, outside peak bird breeding seasons and during the time of year that would result in least disturbance to native vegetation.

Alternative 2 includes constructing approximately 1.2 miles (6,000 linear feet) of paved paths within the project area in addition to a limited connection of unpaved trail spurs (600 linear feet) between the Horse Center and Maintenance Area. The majority of lands on which newly paved paths would be constructed are maintained as mowed grass within the right-of-way and would not noticeably impact wildlife found in the area. These areas already experience a high level of human presence and disturbance that degrades habitat conditions for species that are intolerant of human presence. However, formalizing the trail near the maintenance facility specifically for birding could result in increased human presence in this high-quality bird breeding habitat and may cause increased disturbance to the birds found there.

The construction of the northernmost turnout area in the Horse Center could result in the permanent loss of approximately 0.1 acres of deciduous forest and a conversion of the area to non-vegetated use. This would have a long-term adverse impact on wildlife and wildlife habitat. The impact, however, would not likely have noticeable impacts to the overall wildlife health of the park.

Under this alternative, the United States Capitol stones would be removed and the approximately 1.3-acre area would be restored to natural habitat. Removal of the stones may cause the localized, short-term displacement of wildlife and long-term, beneficial impacts as a result of restored native habitat.

### **Cumulative Impacts**

Past, present, and reasonably foreseeable future actions have and continue to contribute to the cumulative impact on wildlife and wildlife habitat in and around the project area. Ongoing urbanization of the Rock Creek watershed and other areas of Maryland and Virginia near Washington, DC, will continue to result in loss and fragmentation of wildlife habitat. Alternative 2 would not produce substantial changes to the overall abundance, diversity, or habitat

availability for native wildlife. Long-term beneficial impacts could result from the additional and improved education and interpretation elements of alternative 2 that may increase the public's appreciation for wildlife and wildlife habitat. Alternative 2 would have little effect on regional, development-related impacts on wildlife and wildlife habitat.

## **Conclusion**

Construction activities may cause the localized, short-term displacement of individual animals but would not affect the viability of a wildlife population or assemblage either locally or park-wide. Following habitat restoration of construction areas, long-term effects in these areas would be negligible. Ongoing urbanization of the Rock Creek watershed and other areas of Maryland and Virginia near Washington, DC, will continue to result in loss and fragmentation of wildlife habitat. Alternative 2 would have little effect on regional, development-related impacts on wildlife and wildlife habitat.

## **Impacts of Alternative 3**

Alternative 3 would include some improvements that would not occur in alternative 2, including greater expansion of the Rock Creek Nature Center and Planetarium and building upgrades at the Maintenance Area. Activities associated with construction would likely temporarily displace those species that currently use the areas where the proposed construction would occur. This displacement would result from the increased human activity and noise associated with construction equipment and personnel on-site. The loss or displacement of wildlife would not jeopardize the viability of the wildlife populations in and adjacent to the project area. The removal of several small and mature trees in the immediate vicinity of the Nature Center would result in the permanent loss of some of the upland deciduous forest in the project area, which could mean loss of habitat for wildlife in the immediate area. The restoration of disturbed areas to deciduous woodlands would result in long-term, beneficial impacts on wildlife.

Alternative 3 includes constructing the same system of paved and unpaved paths in the project area as proposed in alternative 2. As a result, the impacts would be the same as those discussed under alternative 2.

Under this alternative, the Maintenance Area would be expanded 75 feet into the area currently housing the United States Capitol stones, the stones would be removed, and the remaining approximately 0.9 acres area would be restored to natural habitat. There are approximately 15 mature trees ( $\geq 15$ " DBH) within the 75 feet expansion area including six chestnut oaks, one black cherry, box elder, black locust, red mulberry, elm, and a number of ash trees. There are also a number of large oak trees scattered among the Capitol stones beyond the 75 feet area south of the maintenance fence that would be at risk during the removal of the Capital Stones. Impacts on mature trees in the area would be avoided to the greatest extent possible by using minimally intrusive methods to remove the Capitol stones. To mitigate impacts, the park's certified arborist and natural resource staff would be consulted to identify time of the year that would result in the least disturbance on forest resources and wildlife. Removal of the stones may cause the localized, short-term displacement of wildlife and long-term, beneficial impacts as a result of native restored habitat. The minor, adverse impacts on wildlife would be temporary because they would occur only during the removal of the Capitol stones. Following stones removal and restoration activities, it is expected that any displaced species may return to the area.

## **Cumulative Impacts**

Past, present, and reasonably foreseeable future actions have and continue to contribute to the cumulative impact on wildlife and wildlife habitat in and around the project area. These actions include the installation of a new water lines and fire suppression sprinkler systems at the Nature Center, Horse Center, and Maintenance Area, which involves the potential impact or removal of up to 28 small and mature trees, as well as the disturbance of some grasses and shrubs, resulting in a local, long-term, minor adverse impact. AT&T's proposed telecommunications project could lead to vegetation loss, resulting in a local, long-term, minor adverse impact. The continued implementation of the park's general management plan that instructs the removal of invasive species and planting of native species is a park-wide, long-term, beneficial impact. Alternative 3 would contribute a minor increment to the overall long-term, minor, adverse impacts of other projects and have little effect on regional, development-related impacts on wildlife and wildlife habitat.

## **Conclusion**

In terms of wildlife and wildlife habitat, implementation of alternative 3 would have a local, long-term, adverse impact because of the removal of mature trees; local, short-term, minor, adverse impact during the construction period; and localized, long-term, minor adverse impacts during the operation of the potentially newly renamed Rock Creek Nature Center and trail system during park operations as a result of increased noise and other disturbances from the sight and sound of people. It is expected that displaced species would return to restored areas following construction activities. Expansion of the Nature Center and bus loading area would result in the loss of up to 13 trees resulting in long-term, adverse impacts on wildlife that depend on this habitat.

Construction of paths through areas that are currently undisturbed natural wildlife habitat would result in the disturbance of those habitats. However, the impacts would be minor because of the relatively small area being affected compared to the Nature Center Complex as a whole. Long-term beneficial impacts could result from the additional and improved education and interpretation elements of alternative 3 that may increase the public's appreciation for wildlife and wildlife habitat. Ongoing urbanization of the Rock Creek watershed and other areas of Maryland and Virginia near Washington, DC, will continue to result in loss and fragmentation of wildlife habitat. Alternative 3 would have little effect on regional, development-related impacts on wildlife and wildlife habitat.

## **VISITOR USE AND EXPERIENCE**

### **Affected Environment**

Since 2000, visitation at the Nature Center increased from approximately 32,000 visitors to more than 55,000 visitors in 2017. The average visitor length of stay at the Nature Center is 1 hour. Visitation at the Horse Center peaked between 2008 and 2011, averaging more than 41,000 visitors annually. In 2017, the Horse Center had more than 24,000 visitors and had an average length of stay of 2 hours with the highest use periods occurring from April through October. The Maintenance Area is closed to the public.

The Nature Center and Horse Center are open year-round to the public. The Nature Center and Planetarium is open Wednesday through Sunday from 9:00 a.m. to 5:00 p.m. and is the major information center and focal point for activities related to the park's natural and cultural

history. The Nature Center hosts ranger-led interpretive programs, walks, and a sales outlet managed by Eastern National, an NPS cooperating association. In addition to planetarium programs, evening stargazing sessions occur once a month, April through November. The mature trees and vegetation around the Nature Center have created a natural and rustic scenic character that provides visitors the opportunities for the exploration and contemplation of the surrounding forest, birding, and other nature study, and respite from the sounds and views of the city. Although this is an area of concentrated visitor use and based on the public comments submitted during scoping, the public has come to expect low to moderate number of encounters with other park visitors in this area.

Although owned by the National Park Service, the Horse Center is managed, operated, and maintained by a concessioner under a long-term contract with the National Park Service. The Horse Center offers trail rides, riding lessons, pony rides, boarding facilities, and summer day camp sessions. The administrative offices, locker rooms, public restrooms, stables, riding rings, and tack rooms are open year-round, seven days a week. Trails extending from the Horse Center provide access to horse riding trails throughout the park. The main access trail extends southeast from the Horse Center toward Ross Drive NW and Rock Creek just to the east of the Maintenance Area and it is the most heavily used horse trail in the park. Even though the surrounding natural environment is substantially modified with facilities and grounds associated with the Horse Center, the background is rustic and the noise and visual impacts from concentrated visitor use are mitigated by the wooded setting. The encounter rate with other visitors and park staff in this area is high.

The forest habitat surrounding the Nature Center, Horse Center, and Maintenance Area provide visitors opportunities to experience forested scenery. These areas are popular birding spots, especially in the spring and fall during bird migration and during the summer bird breeding season.

Biking and hiking are also popular activities in the park and within the project area. There are approximately 0.3 miles of paved sidewalks and trails and about 2 miles of unpaved hiking trails within the project area, including a 0.25 mile, wheelchair-accessible, self-guiding nature trail near the Nature Center.

### **Impacts of Alternative 1: No Action**

At the Rock Creek Nature Center and Planetarium, visitors would continue to have opportunities to learn about the park, although the exhibits and furnishings would be worn and dated. Schoolchildren and their teachers would continue to participate in environmental education programs at the center within the existing facility. The overall character of the Nature Center Complex would not change.

No changes in access for individuals with impaired mobility would occur. Within the park, they would continue to be challenged by stairs, narrow doorways, and inadequate restroom facilities in public buildings. They also would continue to have difficulty using some segments of the paved trails that are in disrepair.

### **Cumulative Impacts**

Because there are no new impacts on visitor use and experience, the no-action alternative would not contribute any cumulative effects.

## **Conclusion**

Alternative 1 would maintain the overall wooded character of the Nature Center Complex area and would have no direct, indirect, or cumulative effect on visitor use and experience. Because there is no anticipated impact on visitor use and experience, alternative 1 would not contribute any cumulative effects.

## **Impacts of Alternative 2: Fix It**

Alternative 2 would provide increased access to facilities and programs throughout the Nature Center Complex area including universal access at the Nature Center; new small viewing area, benches, and interpretive waysides at the Horse Center; and upgrades to the birding trail by the Maintenance Area. During these upgrades, visitors may be temporarily impacted as active renovation and construction areas would be off limits to park visitors for safety reasons. Visitors may be directed to other park facilities in other areas of the park during facility and amenities closure, and phased construction would be pursued to lessen the impact on park visitors.

The modest changes in the fabric and footprint of the Nature Center, Horse Center, and Maintenance Area facilities would not change the historic appearance of the Nature Center Complex area. The removal of two mature trees in the northwest corner of the Nature Center would slightly change the overall wooded character of the area, which could be noticeable to some frequent visitors.

Under alternative 2, renovations to the Nature Center and Planetarium would improve space functionality and provide universal access resulting in enhanced visitor experiences. The new outdoor deck at the back of the exhibit room would support rotating exhibits and the opportunity to host events (i.e., public meetings, guest lectures, weddings, birthdays, etc.). Additionally, the new covered outdoor classroom; the multipurpose room, located in the newly renovated and universally accessible auditorium; and the small catering kitchen would improve services for school, youth, and community groups. As a result, more visitors would have the opportunity to use these spaces and participate in educational programs, resulting in a local, long-term, beneficial impact on visitor use and experience. As the new restroom facility in the picnic grove would be kept open whenever the park is open, it would support visitors staying and exploring the area even when the Nature Center and Planetarium are closed, resulting in a local, long-term, beneficial impact on visitor experience.

Improvements proposed under alternative 2 would expand opportunities for all visitors to experience the unique natural and cultural resources of the Nature Center Complex. For instance, parking, signage, sidewalks and interior spaces of the Nature Center would all be brought up to ABAAS standards, providing greater accessibility to the physical spaces as well as programming offered in these spaces. Connectivity would be improved between all facilities, picnic areas, and public transportation through the construction of accessible sidewalks and paved paths.

The establishment of a small network (approximately 1.2 miles long) of paved and unpaved paths in the project area would improve visitor safety by providing an alternative to walking on roadways. Furthermore, the installation of wayfinding signage and waysides would provide clear direction to the facilities within the area and increase awareness of existing visitor facilities and amenities. As a result, the quality of the visitor experience at the Nature Center Complex would improve, resulting in a long-term, moderate, beneficial impact on visitor experience.

Visitor opportunities for birding and visitor safety would be enhanced by removing the US Capitol stones on the southern end of the Maintenance Area and restoring the area to native habitat. Removal of the stones could adversely impact the vegetation and habitat that support birding opportunities. To mitigate impacts, the removal of the stones would be timed to take place outside of the peak bird breeding season (spring and fall) to the maximum extent practicable. Affected vegetation would be restored with native species upon removal of the Capitol stones, resulting in a long-term, beneficial impact on visitor experience.

Increased and enhanced programming at the Nature Center and Horse Center would result in better opportunities for visitors to learn about and understand the park's natural resources and their relationship to the urban environment, resulting in a local, long-term beneficial impact on visitor experience.

### **Cumulative Impacts**

Other past, present, and reasonably foreseeable future projects including the reconstruction of Beach Drive NW, Oregon Avenue NW, and Broad Branch Road NW are expected to provide for safer and more pleasant experiences for drivers, bicyclists, and pedestrians in the vicinity of the Nature Center Complex. Enhanced infrastructure in the area would have considerable benefits to visitors to Rock Creek Park and the Nature Center Complex. Alternative 2 would contribute a beneficial incremental impact to the beneficial impacts of nearby road projects, as accessibility between Military Road NW and surrounding areas would be improved for drivers, pedestrians, and bicyclists. As a result, there would be a beneficial cumulative impact under alternative 2 when combined with other nearby projects.

### **Conclusion**

Alternative 2 would maintain the overall wooded character of the Nature Center Complex area; establish a small network of paved and unpaved paths to connect pedestrians with site facilities; improve universal access; update picnic facilities; improve wayfinding and restrooms; and increase programming, resulting in a long-term, beneficial impact on visitor use and experience.

### **Impacts of Alternative 3**

Alternative 3 would include some construction that would not occur with alternative 2. This would include expanding the Rock Creek Nature Center and Planetarium and significant building upgrades at the Maintenance Area. The Nature Center expansion would result in the removal of three small trees and six mature trees in the north and northeastern corners of the building. The northern parking lot expansion for the new bus pickup/drop-off area would result in the removal of one mature tree. The removal of 10 trees in the immediate vicinity of the Nature Center would result in a noticeable change to the wooded character of this area, resulting in a local, long-term, moderate adverse impact to the wooded character of the area and visitor experience.

In this alternative, the park would have the option of rebranding the Nature Center as the Rock Creek Park Visitor Center, which could elevate the building's profile and attract new visitors to the area. Similar to alternative 2, alternative 3 would provide increased access to facilities and programs throughout the Nature Center Complex area, including universal access at the Nature Center; new, small viewing area, benches, and interpretive waysides at the Horse Center; upgrades to the birding trail by the Maintenance Area; upgrades to paths and trails; and improved working conditions for park staff. During these upgrades, visitors may be temporarily

impacted as active renovation and construction areas would be closed to park visitors for safety reasons. Visitors may be directed to other areas of the park during facility and amenities closure, and phased construction would be pursued to lessen the impact on park visitors. These improvements would have a long-term, beneficial impact on visitor use and experience. The improved access outside and inside the building and the elevated profile of a Rock Creek Park Nature Center or Visitor Center would likely increase the encounter rate with other visitors and park staff, resulting in a long-term, adverse impacts to visitors looking for a more natural and rustic setting.

A new restroom facility in the Nature Center Complex area would support visitors staying and exploring the area even when the Nature Center is closed, resulting in a local, long-term, beneficial impact on visitor experience.

In this alternative, the maintenance buildings would be rehabilitated to improve functionality, and the fenced area would be expanded 75 feet to the southeast into the area currently housing the United States Capitol stones. The building configuration proposed under this alternative would help better define the Maintenance Area boundary and buffer visitors from the sights and sounds of maintenance activities. Stockpiled materials (e.g., trail tread mixture, topsoil, riprap, boulders) located outside of the Maintenance Area fencing would be brought inside the expanded boundary, while the United States Capitol stones would be removed and the area restored to natural habitat, resulting in a long-term, beneficial impact on the character of the area.

Similar to alternative 2, removal of the stones and construction of new facilities would require machinery and generate noise that during construction would create a short-term adverse impact for visitors using this area for birding. However, visitor opportunities for birding would be enhanced by removing the United States Capitol stones on the southern end of the Maintenance Area and restoring all areas impacted by the project to native habitat. Therefore, visitor and the visitor experience would benefit from the restored landscape and improved facilities and paths, resulting in a long-term, beneficial impact.

Improvements proposed under alternative 3 would expand opportunities for all visitors to experience the unique natural and cultural resources of the Nature Center Complex. Parking, signage, sidewalks and interior spaces of the Nature Center would all be brought up to ABAAS standards, providing greater accessibility to the physical spaces as well as programming offered in these spaces. Connectivity would be improved between all facilities, picnic areas, and public transportation through the construction of accessible sidewalks and paved paths, resulting in a long-term, beneficial impact on visitor use and experience.

The establishment of a small network (approximately 1.2 miles long) of paved and unpaved paths in the project area would improve visitor safety by providing an alternative to walking on roadways, as well as improved accessibility. Furthermore, the installation of wayfinding signage and waysides would benefit visitors by providing clear direction and increasing awareness of existing visitor facilities and amenities. As a result, the quality of the visitor experience at the Nature Center Complex would improve, resulting in a long-term, beneficial impact on visitor experience. As the distance from the Nature Center and Horse Center increases, the encounter rate with other visitors would likely decrease, providing opportunities for a visitor experience compatible with an undeveloped forest landscape.

The historic Miller Cabin would be relocated from its current location in a floodplain near the east bank of Rock Creek to picnic area #14. The relocation of the cabin, which would prevent future damage to this historic resource from floods, would result in a long-term, beneficial impact on visitor use and experience because it would provide a new interpretive opportunity in the Nature Center area. A new accessible route would connect the cabin to parking at picnic area #13 and the Nature Center, supporting the opportunity for visitors to learn about one of the oldest historic resources in the park, resulting in a long-term, beneficial impact on visitor experience.

Increased programming at the Nature Center and Horse Center would result in additional opportunities for visitors to learn about and understand the park's resources and their relationship to the environment, resulting in a long-term, beneficial impact on visitor experience.

### **Cumulative Impacts**

Other past, present, and reasonably foreseeable future projects including the reconstruction of Beach Drive NW, Oregon Avenue NW, and Broad Branch Road NW are expected to provide for safer and more pleasant experiences for drivers, bicyclists, and pedestrians in the vicinity of the Nature Center Complex. Enhanced infrastructure in the area would have considerable benefits to visitors to Rock Creek Park and the Nature Center Complex. The installation of fire suppression sprinkler systems in the buildings within the Nature Center Complex would improve safety and minimize the damage to these buildings in case of a fire, resulting in a long-term, beneficial impact on visitor use. The visitor experience would be degraded by the damage or removal of trees because of the fire suppression project and any additional telecommunications infrastructure from the proposed AT&T project. Alternative 3 would contribute a beneficial impact to the overall beneficial impacts of nearby road projects, as accessibility between Military Road NW and surrounding areas would be improved for drivers, pedestrians, and bicyclists. The removal of 12 trees in the immediate vicinity of the Nature Center would contribute an adverse impact because the wooded character of the area would be diminished. However, beneficial impacts of alternative 3 for visitor use and experience including accessibility, safety, and interpretation would be long-term and moderate. As a result, there would be an overall beneficial, cumulative impact on visitor use and experience under alternative 3.

### **Conclusion**

Alternative 3 would change the wooded character of the immediate area surrounding the Nature Center, resulting in a long-term, adverse impact on the area's historic character and the associated visitor experience. It would establish a small network of paved and unpaved paths to connect pedestrians with site facilities, improve universal access, update picnic facilities, improve wayfinding, and increase programming, resulting in a long-term, beneficial impact on visitor use and experience.



The National Park Service conducted public involvement during the NEPA process to provide an opportunity for the public to comment on the proposed action. Consultation and coordination with federal and district agencies, American Indian tribes, and other interested parties was also conducted to identify issues and/or concerns related to natural and cultural resources. This section provides a brief summary of the public involvement and agency consultation and coordination that occurred during planning of the Nature Center Complex Development Concept Plan project.

## **PUBLIC INVOLVEMENT**

As a part of the NEPA process, and to comply with the requirements of Section 106 of the National Historic Preservation Act, the National Park Service involved the public in project planning by conducting a public and agency scoping period from October 31, 2016, through February 8, 2017. The public, agencies, and stakeholders were invited to submit comments on the project during this time period.

Three public open houses were held that provided citizens with an opportunity to

- learn about the proposed Nature Center Complex Development Concept Plan project;
- identify any areas of concern regarding the proposed project;
- provide the opportunity for the public to share their knowledge of important environmental and cultural issues that should be considered during planning; and
- gain public feedback to help inform the development of project alternatives.

The first public open house, on November 16, 2016, took place at the Chevy Chase Library in Washington, DC. The second public open house was held on November 17, 2016, at the Lamond-Riggs Library in Washington, DC. The third open house was held at the Nature Center on January 25, 2017. Seventy individuals signed in at the public open houses. The majority of public comments were from individuals living near the project area.

A second public and agency scoping period was conducted between October 23 and December 15, 2017. A revised set of alternative concepts were presented for public review and comment at this time, and a public open house was held on November 15, 2017, at the Nature Center. Fifty-seven individuals signed in at this public open house.

Public comments expressed support and opposition for the alternative concepts presented in newsletter 1, and many made suggestions for improvements. Some of the most frequent suggestions included reducing tree and bird habitat loss, focusing on safety improvements for

the Horse Center, focusing on fixing deferred maintenance issues, and reducing overall development and change to the area.

Public comments expressed support and opposition for concepts presented in newsletter 2, with most commenters supporting Alternative 2: Fix It, and a mix of support and opposition for alternative 3. Comments in opposition were similar to the comments received for newsletter 1, expressing concern for wildlife, wildlife habitat, and tree cover, and encouraging the National Park Service to consider reductions to development proposals. The National Park Service received 300 correspondences related to the development concept plan.

## **AGENCY CONSULTATION AND COORDINATION**

Section 106 of the National Historic Preservation Act requires that federal agencies consider the effects of their actions on properties listed, or eligible for listing, in the National Register. Compliance with Section 106 of the National Historic Preservation Act has been conducted concurrently with the NEPA process for this project. After initiating the Section 106 compliance process, the National Park Service, in consultation with the DC state historic preservation office, identified any historic properties within the project's area of potential effect. As defined by 36 CFR 800.16(d), the area of potential effect represents "the geographic area within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist."

The National Park Service conducted several agency consultation and coordination activities during planning for the Nature Center Complex. Consultation and coordination included:

- Consulting agencies were invited to consult and comment on newsletter 1 alternative concepts during the public comment period in late 2016 through early 2017. Letter invitations were sent on October 27, 2016.
- An agency and consulting party meeting was held on December 9, 2016, to present conceptual alternatives and to identify potential issues and concerns. At this meeting, the agencies encouraged the National Park Service to continue to consult in the future on the project and expressed interest in an organized site visit.
- Consulting agencies were invited to comment on newsletter 2 revised alternative concepts during the public comment period in late 2017. Invitations were sent by email on October 23, 2017.
- Two stakeholder meetings to discuss alternative concepts were held— one on December 5, 2017, to discuss the alternative concepts and one on January 25, 2018, to specifically focus on concerns raised by the birding and equestrian communities. At the first meeting, stakeholders requested additional time to seek additional participation from their members and networks. At the second meeting, participants identified areas of concern and suggestions for improvements to the alternative concepts.

The following agencies and stakeholders were contacted to request input on the project:

- Advisory Council on Historic Preservation
- Advisory Neighborhood Commissions 3F03, 3G02, 4A07, and 4A08
- Architect of the Capitol
- Audubon Society
- Casey Trees

- DC Council
- DC Department of Energy and Environment
- DC Department of Parks and Recreation
- DC Department of Transportation
- DC Historic Preservation Office
- DC Office of Planning
- Dumbarton Oaks Park Conservancy
- Eastern National
- Ferguson Foundation
- Friends of Chevy Chase Circle
- Friends of Georgetown Waterfront Park
- Friends of Peirce Mill
- Georgetown Business Improvement District
- Guest Services, Inc.
- National Capital Planning Commission
- Outdoor Afro
- Rock Creek Conservancy
- US Commission of Fine Arts
- US Fish and Wildlife Service
- Washington Parks and People
- Washington Tennis and Education Foundation
- Yoga Hikes DC
- More than 60 local residents (names excluded for privacy)

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### District of Columbia Department of Energy and Environment (DOEE)

- 2013 Stormwater Management Guidebook. Online: <http://doee.dc.gov/node/610622>. Accessed November 20, 2015.
- 2015 District of Columbia Wildlife Action Plan. Online: <https://doee.dc.gov/service/2015-district-columbia-wildlife-action-plan>. Accessed April 5, 2018.

### Federal Emergency Management Agency (FEMA)

- 2010 *Flood Insurance Rate Map Panel 1100010019C*. FEMA Map Service Center. Online: <https://msc.fema.gov/portal/advanceSearch>. Accessed April 5, 2018.

### Interagency Visitor Use Management Council (IVUMC)

- 2016 Visitor Use Management Framework: A Guide to Providing Sustainable Outdoor Recreation. Online: [https://visitorusemanagement.nps.gov/Content/documents/lowres\\_VUM%20Framework\\_Edition%201\\_IVUMC.pdf](https://visitorusemanagement.nps.gov/Content/documents/lowres_VUM%20Framework_Edition%201_IVUMC.pdf). Accessed April 20, 2018.

### Interagency Visitor Use Management Council (IVUMC)

- 2016a *Visitor Capacity on Federally Managed Lands and Waters: A Position Paper to Guide Policy*. Denver, CO. <http://visitorusemanagement.nps.gov>
- 2016b *Visitor Use Management Framework, A guide to Providing Sustainable Outdoor Recreation*, 1<sup>st</sup> Edition. Denver, CO. <http://visitorusemanagement.nps.gov>

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Appendix A: Visitor Capacity for Rock Creek Park

Appendix B: Cost Estimates for Plan Alternatives

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## **APPENDIX A: VISITOR CAPACITY FOR ROCK CREEK PARK**

The visitor capacity identification conducted for the Rock Creek Park Nature Center Complex Development Concept Plan was completed in accordance with visitor use management framework guidance developed by the Interagency Visitor Use Management Council in 2016. For additional resources, please visit the following web address:  
<http://visitorusemanagement.nps.gov>.

The process for identifying visitor capacity follows four guidelines: (1) determining the analysis area, (2) reviewing existing direction and knowledge, (3) identifying the limiting attribute, and (4) identifying visitor capacity.

The amount, timing, distribution, and types of visitor use at Rock Creek Park influence both resource conditions and visitor experience. Peak visitation to the Nature Center is typically during the spring and summer, peak visitation to the Horse Center is typically during spring and fall, and peak visitation to the Maintenance Area is typically during migratory bird seasons. Current levels and patterns of visitor use are not causing negative impacts to resources or influencing the ability of the National Park Service (NPS) to maintain desired visitor experiences.

A visitor capacity identification can inform managers about how and when visitors access sites. Appropriate management strategies can then be selected and implemented to maintain desired resource conditions and visitor experience consistent with the purposes for which the park was established. Monitoring of potential visitor-caused impacts to resources as well as visitor experiences may also be identified in the future and used to inform any adjustments to visitor capacities over time.

### **STEP 1: DETERMINE THE ANALYSIS AREA**

The National Parks and Recreation Act of 1978 requires the identification of and implementation commitments for visitor carrying capacities for all areas of the system unit (54 USC 100502). The purpose of this plan/EA is to establish a comprehensive vision for the rehabilitation of and public use in and directly surrounding the Nature Center, Horse Center, and maintenance facility within Rock Creek Park. The analysis areas for visitor capacity identification, therefore, are the Nature Center, picnic areas (west of the Nature Center), the Horse Center, and visitor use areas near the maintenance facility.

### **STEP 2: REVIEWING EXISTING DIRECTION AND KNOWLEDGE**

#### **Nature Center**

The general management plan places the Nature Center in the visitor facilities zone. Facilities in this zone are focused on providing information, interpretation, education and other visitor services. The zone describes visitor experiences as including high encounter frequency with other visitors and park personnel. The Nature Center includes a planetarium, bookstore, small exhibit space, and a children's "discovery room." Visitors can find information about the park and activities including hikes that begin from the center, which currently is open from 9 a.m. to 5 p.m., Wednesday through Sunday. The planetarium can currently accommodate 70 people. Fire code dictates that 297 people may be in the Nature Center and Planetarium at one time.

Visitation has been fairly consistent over the last two years with approximately 50,000 visitors in 2016 and 55,000 visitors in 2017. The Nature Center sees consistent use from February to October with an average monthly visitation of 4,600 people. This translates to an average daily use of 150 people per day currently using the Nature Center.

### **Picnic Area**

The general management plan specifies that picnic areas are part of the urban recreation zone. Facilities in this zone are focused on providing recreation and visitor experiences with high encounter frequency with other visitors and park personnel. This analysis area includes picnic groves #13 and #14, which are to the west of the Nature Center.

Picnic grove #13 is a reservable site with two time periods available each day, a morning (9:30 a.m. to 1:30 p.m) and an evening (3:00 p.m. to 7:00 p.m. or dark) time slot. It includes dispersed picnic tables, fire ring (stone grill), and covered pavilion. Park picnic regulations stipulate that the maximum number of people per reservation per site is 75. In 2017, 125 reservations were made for the site. The average people per site as self-reported by visitors is approximately 52. This indicates that 6,500 visitors used picnic grove #13 in 2017. If both reservations are used in a day, 105 people a day are currently using the area.

Picnic grove #14 is a first-come, first-served site. It includes dispersed picnic tables, fire rings, and no shelters. Picnic regulations for the park stipulate that the maximum number of people for first-come, first-served sites is 25. Because the site is not reservable, current use levels are unknown beyond the maximum allowed at one time. However, park staff have observed that the site does not have high levels of use. It is anticipated that the 52 people per site average applies to this area approximately once a day, resulting in 52 people a day using picnic grove #14.

### **Horse Center**

The general management plan places the Horse Center in the urban recreation zone. Facilities in this zone are focused on providing recreation and visitor experiences with high encounter frequency with other visitors and park personnel. The Horse Center offers boarding, camps, lessons, and trail rides. The focus of the center is for equestrian use specifically and does not offer other types of recreational services to the public. Visitation to the Horse Center has been consistent over the last two years with approximately 28,000 visitors in 2016 and 24,000 visitors in 2017. Generally, the Horse Center sees higher use in the spring (March to May) and fall (September to November) and lower use in the summer and winter months. During the spring and fall, an average of 2,400 visitors come to the Horse Center every month. This translates to an average of 80 people per day currently using the Horse Center.

### **Maintenance Area**

The general management plan places the Maintenance Area in the administration/operations zone. Visitors generally are not aware of facilities in this zone, but when necessary, the visitor experience includes being able to easily locate facilities and that they be user friendly. In addition, areas such as the maintenance facility endeavor to have minimal noise impacts. The primary visitor use occurring in this analysis area is birdwatching along an informal trail to the south of the Maintenance Area, around the Maintenance Yard and the Capitol stones, as well as the footpaths and horse trails in the facility vicinity. Birdwatching primarily occurs during the spring and fall as migrating birds are coming into the area. This use has been observed to occur early in the morning or in the evening, largely before and after maintenance or other visitor

activities are taking place. It is estimated that during peak migration periods, up to 50 visitors may be in the area birdwatching. A small portion of other visitors has also been observed to use the informal trail in this area as they connect to other destinations in the park. The park estimates that approximately 75 people a day use this area as people come and go to birdwatch or are in the area for other purposes.

### **STEP 3: IDENTIFY THE LIMITING ATTRIBUTE**

Step 3 requires the identification of the physical, biological, social, or managerial attribute(s) that most constrain the analysis area's ability to accommodate visitor use. The limiting or constraining attribute(s) can vary across the analysis area; however, for Rock Creek Park the most limiting attribute is related to the social attributes of opportunities for recreation and respite, a fundamental resource and value. The analysis areas each provide opportunities for recreation and respite in their own ways and support this fundamental resources and value by providing an array of opportunities (NPS 2015). For example, the Horse Center provides equestrian opportunities through horse stables, riding rings, turnouts, and bridle trails. The limiting factor for that area is visitor experience specifically related to equestrian uses, as the area—while open to visitors—is not intended for other forms of recreation. To have positive and safe experiences for horses and visitors alike, adding additional visitor opportunities or visitation may not be appropriate. Currently, facilities in some areas could accommodate more visitors than would be desirable for the recreation and respite experiences available. For example, the parking area near the Maintenance Area and the Nature Center could accommodate large levels of use but the recreational experience of birdwatching on the nearby trail would be impacted if all parking spots were used for that specific activity. For this reason, the limiting factor is a social one—the visitor experience—rather than one related to a physical or biological condition.

### **STEP 4: IDENTIFY VISITOR CAPACITY**

Based on the information described in steps 1-3, the appropriate amounts and types of use for each analysis area were assessed. Where necessary, approximations have been made. Identified visitor capacities assume appropriate and commensurate staffing levels at each site. Infrastructure and facilities are important inputs into visitor capacity but do not alone determine the number of visitors that can be accommodated.

#### **Nature Center**

**Alternative 1 – No Action.** Under this alternative, the management approach for the Nature Center would not change. Any changes to visitation would be managed as best as possible; however, changes are not anticipated. The visitor capacity has been identified as the current condition of 150 people a day.

**Alternative 2 – Fix It.** Under this alternative, management actions would be taken to better accommodate visitor use within the Nature Center by improving accessibility in the parking area and through a small expansion of the Nature Center. In addition, accessibility improvements to sidewalks aim to improve connectivity between this and nearby sites. Considering these actions, a slight increase in visitor use at the Nature Center has been determined to be appropriate and likely. The visitor capacity has been identified as a 20% increase from current use to 180 people a day.

**Alternative 3 – Preferred Alternative and Proposed Action.** Under this alternative, management actions would be taken to expand and improve visitor use within the Nature Center. Actions would include expanding and remodeling the building to provide a larger planetarium, outdoor interpretive areas, and to improve accessibility. In addition, a new bus pick-up/drop-off area would better accommodate school and other groups coming to the Nature Center, and an additional restroom would provide an added visitor service. Considering these actions, a significant increase in visitor use at the Nature Center has been determined to be appropriate and likely. The visitor capacity has been identified as a 50% increase from current use to 225 people a day.

**Special Events – All Alternatives.** Special events taking place at the Nature Center require additional management from park staff and/or volunteers. When these events occur, daily use levels may be higher than the visitor capacities stated previously. This has been determined to be acceptable on a case-by-case basis since additional strategies and actions are put in place during large special events that would allow higher levels of use to be accommodated.

### **Picnic Areas**

**Alternative 1 – No Action.** Under this alternative, the management approach for picnic groves #13 and #14 would not change. Any changes to visitation would be managed as best as possible; however, changes are not anticipated. The visitor capacity for both picnic groves has been identified following current management regulations for picnic sites, which set a limit of 75 people at one time for picnic grove #13, and 25 for picnic grove #14. Picnic grove #13, therefore, has a visitor capacity of 150 people a day (1 group, twice a day), and picnic grove #14 has a visitor capacity of 25 people a day (1 group, once a day). This capacity is higher than the number of visitors that have been determined to have used the facilities in 2017 (see page 50 under “Picnic Area”).

**Alternative 2 – Fix It.** Under this alternative, management actions would be taken to improve visitor opportunities at the picnic areas. Actions include improved sidewalks to aid in connectivity between sites and accessibility for all visitors, a new restroom at picnic grove #13, and improving the shelter at picnic grove #13. It is anticipated that these actions could result in an increase in visitation to the area, as visitors would be able to more easily access them and visitor services such as a restroom. Under this alternative, current management regulations related to the maximum number of people per picnic site would continue to be followed. For this reason, the visitor capacity of picnic grove #13 has been identified to be the same as in alternative 1 at 150 people a day. Because of the actions in the alternative, it is anticipated that picnic grove #14 may receive additional use. The visitor capacity for picnic grove #14 has been identified as 25 people a day following the same logic as picnic grove #13.

**Alternative 3 – Preferred Alternative and Proposed Action.** Under this alternative, management actions mirror those in alternative 2 with the exception of the Miller Cabin being relocated near picnic grove #14. The Miller Cabin is likely to serve as an educational opportunity for those picnicking nearby or used for interpretation by park staff. It is not anticipated that the presence of the Miller Cabin will increase visitation to the picnic area. For this reason, the visitor capacity for the picnic areas under alternative 3 is the same as alternative 2.

## **Horse Center**

**Alternative 1 – No Action.** Under this alternative, the management approach for the Horse Center would not change. Any changes to visitation would be managed as best as possible; however, changes are not anticipated. The visitor capacity has been identified as the current condition of 80 people a day.

**Alternative 2 – Fix It.** Under this alternative, management actions would improve recreation opportunities within the Horse Center. Actions include improved horse turnout areas, an improved footing surface for the outdoor riding ring, and renovating the indoor riding area. Because these actions aim at improving current conditions rather than expanding visitor opportunities, the visitor capacity has been identified to be the same as current use levels of 80 people a day.

**Alternative 3 – Preferred Alternative and Proposed Action.** Same as alternative 2; see previous text.

## **Maintenance Area**

**Alternative 1 – No Action.** Under this alternative, the management approach for the Maintenance Area would not change. Any changes to visitation would be managed as best as possible; however, changes are not anticipated. The visitor capacity has been identified as the current condition of 75 people a day.

**Alternative 2 – Fix It.** Under this alternative, management actions would improve recreation opportunities surrounding the Maintenance Area. Actions include formalizing the trail to the south of the Maintenance Area using minimal accessibility improvements and restoring a nearby area to natural habitat. As these actions would likely improve birdwatching, visitor use could slightly increase without having negative impacts to resources or experiences. The visitor capacity has been identified as a 15% increase over current use to approximately 86 people a day.

**Alternative 3 – Preferred Alternative and Proposed Action.** Under this alternative, management actions mirror those in alternative 2 with the exception of the Maintenance Yard fence being extended by 75 feet to the southeast. This action is not anticipated to cause a change in visitation or conditions and the same rationale for alternative 2 stands for this alternative. Therefore, the visitor capacity has been identified as approximately 86 people a day.

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## APPENDIX B: COST ESTIMATES FOR PLAN ALTERNATIVES

National Park Service decision makers and the public must consider the costs and advantages of various alternatives, including the no-action alternative, to make a relevant comparison among the alternatives.

The costs presented here are estimates for comparison purposes only and are not to be used for budgetary purposes or implementation funding requests. If and when the actions are implemented, actual costs would vary. Specific costs would be determined in subsequent, more detailed planning and design efforts.

Presentation of costs in this plan/EA does not guarantee future NPS funding. Project funding would not come all at once; it would likely take many years to secure, and partners, donations, or other non-federal sources could provide some funding. Although Rock Creek Park hopes to secure this funding and would prepare itself accordingly, the park might not receive enough funding to achieve all desired conditions within the time frame of the Nature Center Complex Development Concept Plan, which is the next 20 years.

The estimates in this section include annual operating and one-time facility costs. These are defined as follows:

- Annual Operating Costs are the total costs per year for operations and maintenance (O&M) associated with each alternative, including utilities, supplies, staff salaries and benefits, leasing, and other materials. Cost and staffing estimates assume that the alternative is fully implemented as described.
- One-Time Facility Costs include those for the design, construction, rehabilitation, upgrades, or adaptive reuse of visitor centers, campgrounds, picnic areas, roads, parking areas, administrative facilities, comfort stations, educational facilities, maintenance facilities, trails, and other visitor facilities. These costs are estimated in 2018 dollars using NPS and industry-standard systems.

**Table B-1. Cost Estimates for Full Implementation of the Action Alternatives**

Cost Type	Alternative 1 (No Action)	Alternative 2	Alternative 3 (NPS Preferred)
Annual Operating Costs*	\$9,000,000*	\$9,104,000	\$9,412,000
Total One-Time Facility Costs	\$4,712,000	\$20,642,000	\$27,747,000

\*Estimated based on 8-year inflation adjusted average, NPS Administrative Financial System, 2006-2013.

### ANNUAL OPERATING COSTS

Annual operating cost estimates for the action alternatives, summarized in table B-1, are calculated by adding the additional annual operating costs associated with the implementation of each action alternative to the staffing and annual operating costs under the no-action alternative. Facility modifications and expansions in alternative 2 increase required annual O&M expenditures by \$104,000, while those in alternative 3 increase required annual O&M expenditures by \$412,000. These additional costs could be supported by various means

including (but not limited to) revenues from the leasing of facilities elsewhere in the park, special events held in the Nature Center or on surrounding grounds, partner support, and private donations.

### ONE-TIME FACILITY COSTS

One-time NPS facility costs for each action alternative are summarized in table B-1 and shown in more detail in table B-2, followed by a description of the alternative components. The National Park Service could fund these facility improvements through several funding sources, such as the Federal Lands Recreation Enhancement Act and the NPS Line-item Construction Programs. State and local funds, concessioner funds, partner support, and private donations could also fund these costs.

**Table B-2. Estimated One-Time Facility Costs to Implement the Action Alternatives**

Area	Alternative 1 (No Action)*	Alternative 2	Alternative 3 (NPS Preferred)
Horse Center	\$1,211,000	\$4,825,000	\$4,825,000
Maintenance Facility	\$1,781,000	\$4,730,000	\$9,518,000
Nature Center	\$1,703,000	\$9,858,000	\$12,175,000
Site Improvements	\$17,000	\$1,229,000	\$1,229,000
TOTAL	\$4,712,000	\$20,642,000	\$27,747,000

\*Includes costs associated with addressing documented deferred maintenance and code compliance.

Table B-3 summarizes the alternative components for each alternative.

**Table B-3. Alternatives Comparison Table**

Area	Alternative 1 (No Action)	Alternative 2	Alternative 3 (NPS Preferred)
Horse Center	<ul style="list-style-type: none"> <li>Address all documented deferred maintenance and code compliance</li> </ul>	<ul style="list-style-type: none"> <li>Renovated stables, office, and other buildings</li> <li>Renovated indoor riding ring; new viewing area</li> <li>Renovated existing turnouts and two new 50x100 turnouts</li> <li>New footing surfaces for all riding areas</li> <li>Improvements to complex to improve visitor experience</li> </ul>	<ul style="list-style-type: none"> <li>Renovated stables, office, and other buildings</li> <li>Renovated indoor riding ring; new viewing area</li> <li>Renovated existing turnouts and two new 50x100 turnouts</li> <li>New footing surfaces for all riding areas</li> <li>Improvements to complex to improve visitor experience</li> </ul>
Maintenance Facility	<ul style="list-style-type: none"> <li>Address all documented deferred maintenance and code compliance</li> </ul>	<ul style="list-style-type: none"> <li>Renovated, reconfigured, reprogrammed existing buildings</li> </ul>	<ul style="list-style-type: none"> <li>Construct new 2-story office building to consolidate park staff</li> </ul>

Area	Alternative 1 (No Action)	Alternative 2	Alternative 3 (NPS Preferred)
		<ul style="list-style-type: none"> <li>Cover waste/recycling area</li> </ul>	<ul style="list-style-type: none"> <li>Consolidate existing buildings on-site with new maintenance shop and covered storage area</li> <li>New vehicle / equipment wash rack</li> </ul>
Maintenance Facility		<ul style="list-style-type: none"> <li>New building mechanical systems</li> <li>New fueling station</li> <li>Remove US Capitol stones; restore area</li> <li>Improved surface of birding trail for accessibility</li> </ul>	<ul style="list-style-type: none"> <li>New building mechanical systems</li> <li>New fueling station</li> <li>Remove US Capitol stones; restore area</li> <li>Improved surface of birding trail for accessibility</li> </ul>
Nature Center	<ul style="list-style-type: none"> <li>Address all documented deferred maintenance and code compliance</li> </ul>	<ul style="list-style-type: none"> <li>New outdoor deck area</li> <li>Reconfigure upper floor</li> <li>Improved restrooms</li> <li>Accessibility improvements</li> <li>Modify planetarium and auditorium floors</li> <li>New mechanical systems</li> <li>New catering kitchen</li> </ul>	<ul style="list-style-type: none"> <li>New outdoor deck area</li> <li>Reconfigure upper floor</li> <li>Improve restrooms</li> <li>Accessibility improvements</li> <li>Modify planetarium and auditorium floors</li> <li>New mechanical systems</li> <li>New catering kitchen</li> <li>Glass-walled, multipurpose corridor</li> <li>Expand building for new interpretive offices</li> <li>Elevated deck area in parking lot island</li> </ul>
Site Improvements	<ul style="list-style-type: none"> <li>Address all documented deferred maintenance and code compliance</li> </ul>	<ul style="list-style-type: none"> <li>New sidewalks and paths</li> <li>Updated picnic facilities</li> <li>Improved signage and wayfinding</li> <li>New restroom</li> <li>Improved lighting</li> </ul>	<ul style="list-style-type: none"> <li>New sidewalks and paths</li> <li>Updated picnic facilities</li> <li>Improved signage and wayfinding</li> <li>New restroom</li> <li>Improved lighting</li> <li>Relocated Miller Cabin</li> </ul>

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

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