

ALTERNATIVES, INCLUDING THE PREFERRED ALTERNATIVE



THE ALTERNATIVES

INTRODUCTION

Many aspects of the desired future condition of Manassas National Battlefield Park are defined in the establishing legislation, the park's purpose and significance statements, and the servicewide mandates and policies that are described in the "Purpose of and Need for the Plan" chapter. Within these parameters, the park staff solicited input from the public, other NPS staff, government agencies, and other organizations regarding issues and desired future conditions for Manassas National Battlefield Park. Planning team members also gathered information about existing visitor use and the condition of facilities and resources.

The building blocks for an approved plan for managing a national park are the management prescriptions and the alternatives. All are developed within the framework of the park's purpose, significance, mandates, and legislation.

Management prescriptions are descriptions of desired conditions for park resources and visitor experiences in different areas, or zones, of the park. Management prescriptions are determined for each national park system unit to identify the widest range of potential appropriate resource conditions, visitor experiences, and facilities that fall within the scope of the park's purpose, significance, and special mandates. Five management prescriptions have been identified for Manassas National Battlefield Park.

Each of the alternatives in this *General Management Plan* has a different comprehensive management concept. These management concepts describe what the park would be like, and would guide how the park's management prescriptions would be applied to support the concept. The combination of concept and application of management prescriptions gives an overall picture of what

the park would be like under a given alternative.

FORMULATION OF ALTERNATIVES

This *General Management Plan / Environmental Impact Statement* presents three alternatives. The alternatives focus on what resource conditions and visitor uses are desired for Manassas National Battlefield Park, rather than on how these conditions will be achieved. Desired future conditions provide a long-term framework for making management decisions. Implementation-level decisions are generally much more detailed and short-lived. Opportunities often depend on variables of funding availability, leading to variation in implementation. Thus, the alternatives do not include specific implementation strategies for resource or visitor use management. The alternatives for Manassas National Battlefield Park directly respond to the major planning issues identified by the public, park staff and other interested parties.

More detailed plans or studies may be required to identify specific implementation strategies before most conditions proposed in the alternatives are achieved. The implementation of any alternative would also depend on future funding and environmental compliance. This plan does not guarantee that money would be forthcoming. The plan establishes a vision for the future that would guide day-to-day and year-to-year management of the national park but full implementation could take many years.

Over the life of this plan, the park may be able to consider actions not analyzed in the environmental impact statement. Before any actions were initiated, park management would determine if the actions were consistent with the rationale of the management approaches adopted in this plan and if the actions would assist the park in achieving desired future conditions articulated in the plan. If park management determined that the proposed action would meet these conditions,

all necessary compliance would be completed at that time. Among the three alternatives developed through this plan, alternative A is the “no-action” alternative, which presents a continuation of existing management direction. It is included as a baseline for comparing the consequences of implementing the two “action” alternatives—alternatives B and C. These action alternatives present different ways to manage resources and visitor use and improve facilities and infrastructure at Manassas National Battlefield Park. Both assume the completion of the Manassas National Battlefield Park Bypass, which would remove commuter and heavy truck traffic from the portions of U.S. Route 29 and VA Route 234 that run through the park.

IDENTIFICATION OF THE PREFERRED ALTERNATIVE

Manassas National Battlefield Park is an unusual site in that two major Civil War battles were fought on virtually the same ground 13 months apart in 1861 and 1862. Since the conclusion of the war, most Americans have focused on the first battle for a number of reasons.

- It was the first major land battle of the war.
- It was the largest battle involving American troops up to that date.
- A large group of spectators came out from Washington, D.C. to watch the spectacle.
- Thomas “Stonewall” Jackson received his *nom de guerre* on the battlefield.
- On a more sobering note, some 900 individuals lost their lives in the fighting.

While First Manassas has drawn more attention and interest, the Second Manassas was equally important.

- Unlike the first battle, in which nearly all of the soldiers were raw recruits ignorant of the realities of warfare, the second battle was fought by more seasoned veterans who understood the harsh nature of battle.

- These soldiers were much more efficient killing machines, who exacted a much higher price for their efforts: nearly 3,200 were killed in the second battle.
- Second Manassas was one of the earliest engagements in which the Confederates were led by General Robert E. Lee. Many historians believe his leadership turned Second Manassas into one of his greatest tactical victories of the war. Lee’s stunning success emboldened him to lead his army into the North, where he was repulsed less than three weeks later.

For a variety of reasons, Second Manassas has received less emphasis at Manassas National Battlefield Park. The park’s *Interpretive Prospectus* (1994) points out that “the fact that Manassas Battlefield contains the sites of two separate battles covering some of the same ground makes clear interpretation of both battles very difficult. Traditionally, the park’s interpretive program has emphasized First Manassas at the expense of the Second Battle of Manassas.”

The same report found that less than 8 percent of all park visitors even started the Second Manassas Driving Tour, and less than 1 percent finished it. To solve this “identity crisis” for Second Manassas, the *Prospectus* calls for “an easily identifiable and accessible ‘focal point’ to begin the interpretation of Second Manassas.”

Alternative B’s comprehensive approach to interpreting *both* battles will enable visitors to grasp the evolution of this conflict from the first battle, which many supporters and participants on both sides thought would be a quick and easy victory, to the second battle, which those same people now recognized was part of a long and very deadly affair. Selecting alternative B as the preferred alternative for the future development and management of the park would facilitate and deepen visitor understanding of the Civil War and the importance of both battles that occurred at Manassas. Alternative B will also help visitors understand how Civil War battles were literally fought in the front yards of residents, a common

occurrence in mid-1800s warfare. Park patrons will be able to place these battles in the context of the entire war, including the important battles that occurred elsewhere between First and Second Manassas, as well as subsequent battles such as Antietam.

Implementation of alternative B will give visitors a much better understanding of the battles of Manassas. In addition to an immersion in the strategies, tactics, troop movements, and wise and unwise military decisions by the commanders, visitors will leave the park with a much better understanding of the fundamental role that the Civil War played in American history.

MANAGEMENT PRESCRIPTIONS

Management prescriptions influence the management of park resources by specifying the range of desired visitor experiences, desired cultural and natural resource conditions, and appropriate kinds of activities and facilities necessary to achieve those goals in designated areas, or zones, of the park over time. Applying these prescriptions differently to the park's specific geographic areas creates the range of viable alternatives required by the planning process. Alternative A, the no-action alternative, would maintain current management practices, as is required by the planning process. Table 2-1 summarizes the management prescriptions proposed for Manassas National Battlefield Park.

Visitor Experience/Services Prescription

In areas of the park where this prescription was applied, visitors would encounter a high concentration of activity, services, interpretation, and orientation. The areas would be developed more intensely, but remain protected from intrusive effects of modern development and incompatible activities. Hiking and equestrian trails would be included under this prescription.

Natural and Cultural Resource Conditions. Natural resources would be actively managed to accommodate intense visitor use for

interpretation, education, and visitor services. The management emphasis in areas under this prescription would include minor modifications to facilities to better preserve resources. The historic natural and cultural landscapes would be safeguarded in a way that preserves the integrity of historic views and vistas. Modern additions to the landscape would be permitted but designed to complement the historic and natural context.

Visitor Experience/Appropriate Facilities Conditions. Visitors to these areas or zones would experience a high-degree of social interaction. Buildings, structures, and signs of people would be predominant. Facilities would be convenient and accessible, with little need for visitors to make large time commitments.

Major visitor and administrative facilities would be expected in this area. Orientation and interpretation would be provided through a variety of formats. Typical visitor support facilities would include contact stations, museums, interpretive media, bookstores, parking areas, comfort stations, benches, picnic tables, water fountains, sidewalks, and trails for walking, hiking and equestrian use.

Cultural Landscape Rehabilitation/ Preservation Prescription

Under this prescription, cultural and natural resources, including historic buildings, structures, and landscapes, would be rehabilitated to conditions representative of the Civil War period to support visitor understanding or in-depth interpretation of the battles. Modern elements could be present in this zone, but they would not distract from the cultural landscape. Management of visitor activities, interpretation sites, historic structures, and trails would ensure resource protection and preservation.

Natural and Cultural Resource Conditions. Cultural and natural resources would be rehabilitated to conditions representative of the Civil War time period. Resource and viewshed preservation and protection would be the primary focus. While the sight and

Table 2-1: Management Prescriptions

	Natural & Cultural Resource Conditions	Visitor Experience/ Appropriate Facilities Conditions	Representative Activities
Visitor Experience/ Services	<ul style="list-style-type: none"> Minor modifications to existing facilities, amenities, and resources Modern additions to the landscape are permitted, but do not distract from the historic and natural context Located in such a way as to not intrude on historic views or vistas of the cultural landscape 	<ul style="list-style-type: none"> Orientation and interpretation occur in this area through a variety of formats Buildings, structures, and signs of people are predominant Cultural and natural resources are present Facilities are convenient and accessible; there is little need for visitors to make a large time commitment to see the area Social interaction with others is likely 	<ul style="list-style-type: none"> Major visitor and administrative facilities are found in this area Visitor support facilities such as contact stations, museums, interpretive media, bookstores, parking areas, comfort stations, benches, picnicking, walking trails, and bridle trails are present Orientation and interpretation are provided through various formats
Cultural Landscape Rehabilitation/Preservation	<ul style="list-style-type: none"> Cultural and natural resources are rehabilitated (including buildings, other structures, and landscapes) to conditions representative of the Civil War time period to support visitor understanding and in-depth interpretation of the battles The sights and sounds of people are evident in limited amounts Resource protection and preservation are the primary focus Except for essential changes, tolerance for resource impacts is low Modern intrusions are not evident 	<ul style="list-style-type: none"> Emphasis is on in-depth learning about and visitation of important park resources Experiences are primarily self-guided or ranger-led Structure and direction is provided through trails, interpretive media, and signs, but opportunities for self-discovery exist Visitors need to make a moderate time commitment to experience resources Opportunities for solitude exist at certain times, but there are likely to be encounters with other visitors 	<ul style="list-style-type: none"> Trails, overlooks, wayside exhibits, small parking areas, driveways, and interpretive media are found in this area Predominant activities include walking, viewing resources, and attending interpretive tours Special events and activities are allowed by permit only
Motorized Sightseeing and Circulation	<ul style="list-style-type: none"> Areas in this zone provide a scenic, visually appealing natural and cultural backdrop for motorized park touring and circulation Areas in this zone are managed to ensure resource protection and public safety Resources may be modified for essential visitor and park operational needs, such as paving roads or felling hazardous trees 	<ul style="list-style-type: none"> Paved roadways and associated developments are used for touring the park, enjoying scenic overlooks, and stopping to visit roadside interpretive media Visitor experience generally depends on automobiles or bicycles, involves driving or riding along a well-maintained road, and is linear in nature Observing the natural or cultural environment is important, and a sense of discovery is part of the experience The probability of encountering other visitors is high 	<ul style="list-style-type: none"> Motorized sightseeing occurs in a nonintrusive way throughout the zone, primarily on existing roadways The area includes paved roadways, pullouts, overlooks, associated short trails, parking areas, and other facilities that support visitor touring Roadway design and speed limits are adjusted in this zone to safely accommodate cars and bicyclists, and frequent stops This area includes park entrance facilities and associated visitor service areas
Recreation	<ul style="list-style-type: none"> Area has minor modifications to existing facilities, amenities, and resources to accommodate large groups of visitors Facilities are located in such a way as to not interfere with historic views or vistas of the cultural landscape 	<ul style="list-style-type: none"> Visitor experience is focused on recreational and social interaction with some interpretive opportunities present Natural and cultural resources provide the visual backdrop within this setting, with predominant signs of other visitors Visitor support facilities are convenient and accessible 	<ul style="list-style-type: none"> Facilities are present to accommodate large group picnics and approved recreational activities Visitor amenities include picnic tables, restrooms, and parking Approved recreational activities and picnicking would occur in this zone Special events and activities are allowed by permit only
Park Operations and Maintenance	<ul style="list-style-type: none"> Area has minor modifications to existing facilities, amenities, and resources to accommodate changing operational needs Locations are selected to minimize intrusions on the historic views and vistas and areas of high visitor use 	<ul style="list-style-type: none"> Area is dedicated to park operational and maintenance needs Visitors are discouraged from entering these areas 	<ul style="list-style-type: none"> Zone includes essential facilities, structures, and equipment to meet operational and maintenance needs of the park Activities and facilities in this zone may affect the visual, audio, and olfactory experience of the park

sounds of people would be evident, the impact to resources would be low. Modern elements may be present in this zone, but would not distract from the natural and cultural landscape.

Visitor Experience/Appropriate Facilities Conditions. Through self-guided or ranger-led experiences, the visitor would learn about important park resources and events. Structure and direction would be provided but some opportunities for discovery would exist. At certain times of the day or season, opportunities for solitude would exist, but in general there would likely be encounters with other visitors. Visitors would need to make a moderate time commitment to experience the resources. Trails, overlooks, small parking areas, paved driveways, and wayside exhibits and other interpretive media would be found in this area. Predominant activities would include walking, viewing resources, and attending interpretive walks and talks. Special events and activities would be allowed by permit only.

Motorized Sightseeing/Park Circulation Prescription

This prescription would be applied to areas that provide scenic, visually appealing, natural and cultural backdrops for motorized touring and circulation in the park. Visitors could experience this prescription by vehicle or bicycle, while driving along well-maintained roads in a linear/ sequential nature and making frequent stops at interpretive exhibits. Some alteration of resources (road paving or the felling of trees that pose hazards to visitors) may be necessary to facilitate visitation and park operations.

Natural and Cultural Resource Conditions. Areas falling under this prescription would be intensely managed to ensure resource protection and public safety. Areas in this prescription would provide a scenic, visually appealing natural and cultural backdrop for motorized park touring and circulation. Resources would be modified for essential visitor needs and park operations and maintenance. Motorized

sightseeing would occur along existing roadways and would be nonintrusive.

Visitor Experience/Appropriate Facilities Conditions. This area would include paved roadways and associated development used for touring the park, enjoying scenic overlooks, and stopping to visit roadside interpretive media. Visitors would be heavily dependent on vehicles or bicycles and would use a well-maintained road for sequential or linear touring. Visitors would observe the natural and cultural environment and have some opportunities for self-discovery.

The probability of encountering other visitors would be high. The area would include paved roadways, pullouts, overlooks, short trails, parking areas, and other visitor facilities that support touring. Roadway design and speed limits would be adjusted in this prescription to safely accommodate both cars and bicycles making frequent stops. This prescription would also include park entrance facilities and associated visitor service areas.

Recreation Prescription

In areas of the park where this prescription was applied, visitors would be able to picnic in large groups and enjoy approved recreational activities. Interaction with cultural and natural resources would be secondary in this prescription.

Recreational activities such as picnicking and fishing (with a valid permit) typically would be permitted in specified areas of the park, while swimming and the use of bicycles on unpaved roads typically would be prohibited. Special events or activities typically would be allowed by permit only. These prohibitions and permissions could change periodically, and would be outlined in the annual *Superintendent's Compendium*.

Natural and Cultural Resource Conditions. Under this prescription, resources, facilities, and amenities may need modifications to accommodate large groups of visitors. The prescription would be sited to not interfere with historic views and vistas and cultural

landscapes. Visitors, facilities, and resources would be intensely managed in this prescription.

Visitor Experience/Appropriate Facilities Conditions. Visitors would experience recreational opportunities and social interactions with some interpretive opportunities. Natural and cultural resources would provide a visual backdrop within this setting with human interactions predominant. Visitor support facilities would be convenient and accessible. Facilities and visitor amenities would accommodate large group picnics and associated and approved recreational activities. Visitor amenities would include picnic tables, restrooms, and parking.

Park Operations and Maintenance Prescription

This prescription would meet the essential operational and maintenance needs of the park. Management of activities and facilities in this prescription would focus on limiting

visual, auditory, or olfactory impacts to park resources and visitor enjoyment.

Natural and Cultural Resource Conditions.

This prescription would be located in areas that would minimize intrusions on the historic views or vistas and areas of high visitor use. The areas are generally small, with intense resource manipulation to meet operational needs. As such, they may include minor to major modifications to existing facilities, amenities, and resources to accommodate changing operations and maintenance needs.

Visitor Experience/Appropriate Facilities Conditions. Because this area would be dedicated to park operations and maintenance needs, visitors would be discouraged. Areas falling under this prescription would have essential facilities, structures, and equipment to meet the operations and maintenance needs of the park. Activities and facilities in this prescription may intensely limit visitor enjoyment and affect the visual, audio, and olfactory experience of the park.

ALTERNATIVE A—CONTINUING CURRENT MANAGEMENT PRACTICES (NO ACTION)

CONCEPT

This no-action alternative consists of a continuation of current management direction and trends at Manassas National Battlefield Park, and serves as a baseline measurement for comparing the resource conditions and visitor experiences prescribed by the two action alternatives. The existing conditions, trends, and management practices would be maintained with only minor changes. Managers would continue to follow the special mandates and servicewide mandates and policies described in the “Purpose of and Need for the Plan” chapter. The current, most recognizable features in the park would continue to serve as the primary focus for visitor use and interpretation. Orientation and visitor services related to both battles would continue to be offered at a single, centralized location. Map 2-1 depicts the cultural and historic elements of alternative A.

Under this alternative, historical park uses and development patterns would continue in accordance with the 1983 *General Management Plan*. The main roads within the park (U.S. Route 29 and VA Route 234) would remain open to commuter and truck traffic. Current facilities at the park would be maintained, upgraded, and rehabilitated as needed. Some changes would be made to visitor use patterns to improve access to those lands added to the park since the 1983 plan was completed, including the Brawner Farm and Stuart’s Hill tracts.

Opportunities for visitors to explore the park would be different for each battle. Visitor use would be concentrated in a central area at Henry Hill, with a smaller visitor contact station on Stuart’s Hill. Heavy volumes of commuter and commercial truck traffic would continue to impede the interpretation of Second Manassas. However, the park would devote equal time and facilities to both battles. Visitors would visit the sites of First and

Second Manassas by automobile tour and hiking trails.

Alternative A would present visitors with a battlefield landscape that would be characteristic of the area’s rural past but that would fail to capture the nuances of the wartime landscape that shaped the strategies, decisions, and events of the two battles. Only small components of the altered historic landscape would be rehabilitated. Visitors would learn about the historic landscape through interpretive displays and programs. Structures built before the park’s creation in 1940, and especially wartime structures, would be preserved. Some postwar structures would mark the sites of wartime buildings. Map 2-2 shows the circulation and interpretation features of alternative A.

MANAGEMENT ZONES

The 1983 *General Management Plan* indicates that “the park is on the National Register of Historic Places and is therefore zoned as historic.” As a result, the 1983 *General Management Plan* defined three management subzones for the park. The park would retain these subzones in alternative A. The subzones, as described by the 1983 *General Management Plan*, are described below.

Battlefield Rehabilitation Subzone ²

“The rehabilitation subzone will encompass the core area of historic resources important for interpreting the battle stories. The size and character of this subzone is determined by the locations of visitor use and development areas. Significant resources in this subzone include the historic battlefield landscape and several historic structures.

² The 1983 document’s use of the word “restoration” corresponds to this document’s use of the word “rehabilitation.”

“The level of historic structure rehabilitation or preservation in each subzone will be based on architectural integrity and significance New or existing facilities that are not directly related to historic preservation and Civil War interpretation will not be allowed in this subzone unless the property is privately owned or serves a protection function.”

Preservation Subzone

“Within this subzone, all historic structures will be preserved at levels commensurate with their significance and integrity, and those sections of the landscape that have already been restored will continue to be maintained.

“Within this subzone, recreation, visitor use, and park operations facilities can be provided, but the importance of the historic resources will still remain paramount in any considerations for development.”

Protection Subzone

“This...subzone along the outer perimeter of the park...is critical for protecting the quality of the visitor’s experience and the present integrity of the core historic resources from outside intrusions. On parklands within this protection subzone, vegetation will be allowed to grow into forest where lands within the two other subzones need special protection. Otherwise, the landscape will be preserved in its existing condition. Historic structures will be preserved at a level commensurate with their integrity and significance.”

ORIENTATION AND VISITOR SERVICES

Visitor Center

The Henry Hill visitor center would remain as the primary center of interpretation for First Manassas and the first contact and orientation site for park visitors. The level of visitor use would be high. The visitor center would include visitor services and would retain its current parking area. At the Henry Hill visitor center, visitors would receive initial information, orientation, and interpretation.

The visitor center would also be the starting point for the two battlefield tours.

First Manassas Tour

Visitors would primarily experience the resources of First Manassas through the 1-mile-long Henry Hill Loop Trail, a self-guided interpretive tour. The First Manassas Tour (hiking trail) is a longer trail that connects several interpretive sites. These trails present the story of First Manassas in a way that helps visitors understand and study battle events. The function of the Henry Hill Loop Trail would be to provide visitors with a relatively easy way to experience the many resources on Henry Hill.

The hiking trail for the First Manassas Tour is approximately 5 miles long. The function of the First Manassas Tour would be to provide visitors with the opportunity to develop a fuller understanding of the battles while providing them with solitude and a sense of discovery. The hiking trail would receive low levels of visitor use, and would follow existing trails. Visitors using this trail would be able to understand the events of the battle, and could visit the historic sites of First Manassas, such as Henry Hill, Stone Bridge, Van Pelt Hill, Pittsylvania, Matthews Hill, and Stone House.

In addition to the tour and trails, visitors could drive to several of the important interpretive sites. These interpretive areas would receive low to moderate levels of visitor use and would include a parking area, interpretive displays, and in some areas, a short loop trail. These interpretive areas would include sites such as the Stone Bridge, Sudley, Matthews Hill, Stone House, Chinn Ridge, and Portici.

Second Manassas Tour

Visitors would continue to use the chronological driving tour to visit the sites of Second Manassas. The tour route and the sites it connects would receive low to moderate levels of use. A small parking area, interpretive displays, and a short loop trail would be

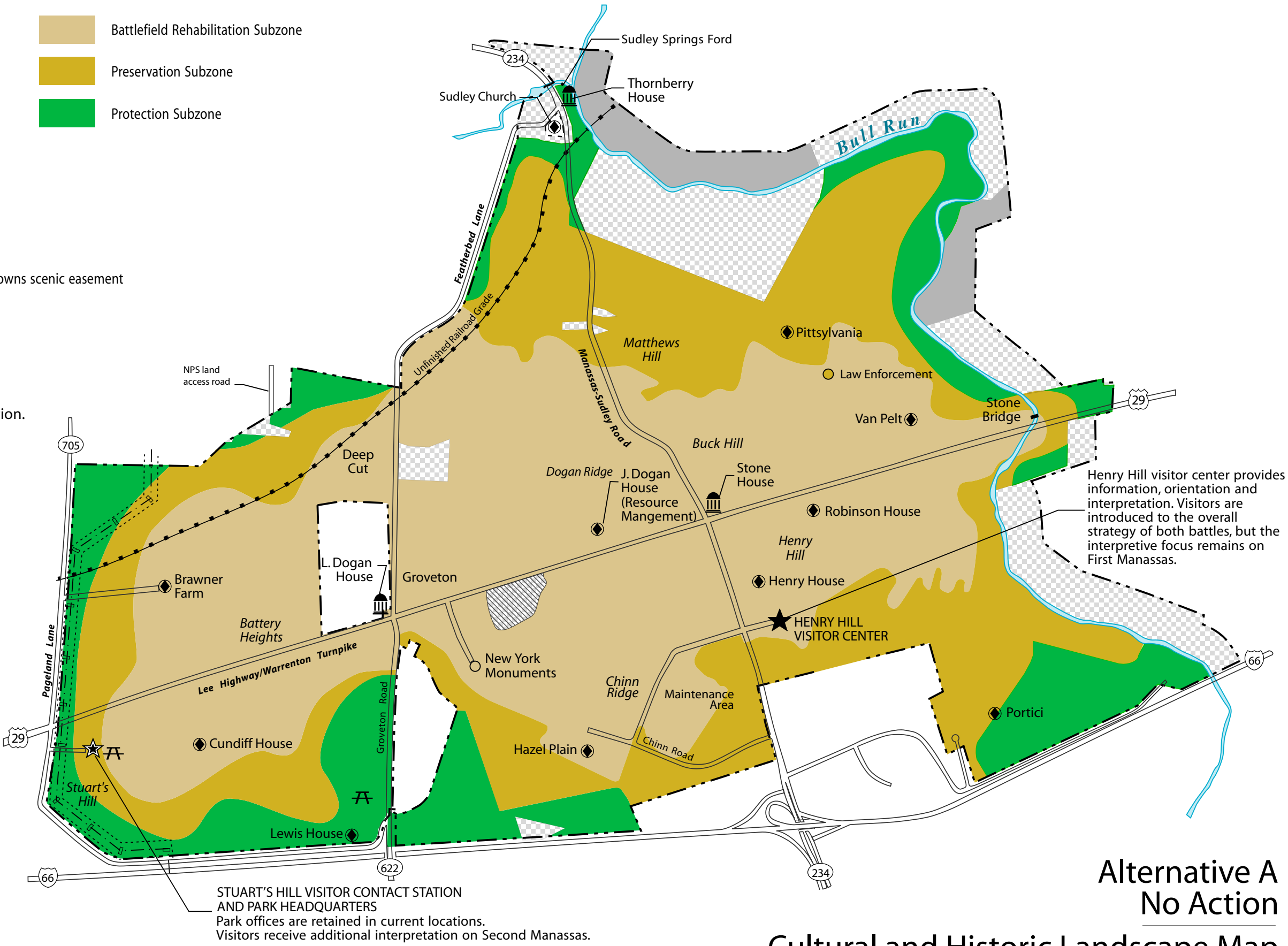
SYMBOL KEY

- National Battlefield Park Boundary
- Picnic area
- Preserved war time structure (structures would be upgraded for visitor use)
- Visitor center
- Visitor Contact Station and Park Headquarters
- Historic House site
- Other Significant Site
- Unfinished Railroad Grade
- Non-NPS public land within park boundary
- Privately owned land within park boundary
- Privately owned land within park boundary; NPS owns scenic easement
- Privately owned land outside park boundary
- Power line easement

MANAGEMENT SUBZONES

- Battlefield Rehabilitation Subzone
- Preservation Subzone
- Protection Subzone

- NOTES:
- Orientation and visitor services for both battles would be carried out from a central location.
 - First Manassas would continue to receive greater visitor attention, although the Park would continue to devote equal time and facilities to both battles.
 - Visitors would gain an understanding of both battles by visiting the many sites of each battle.
 - Only small components of the altered historic landscape within the rehabilitated subzone would be rehabilitated.



Alternative A
No Action
Cultural and Historic Landscape Map

SYMBOL KEY

- National Battlefield Park Boundary (Shaded area indicates park land)
- National Battlefield Park Land
- Parking Area
- Horse Trailer Parking Area
- Preserved war time structure
- Visitor Center
- Visitor Contact Station/Park Headquarters
- Unfinished Railroad Grade
- Equestrian Trails

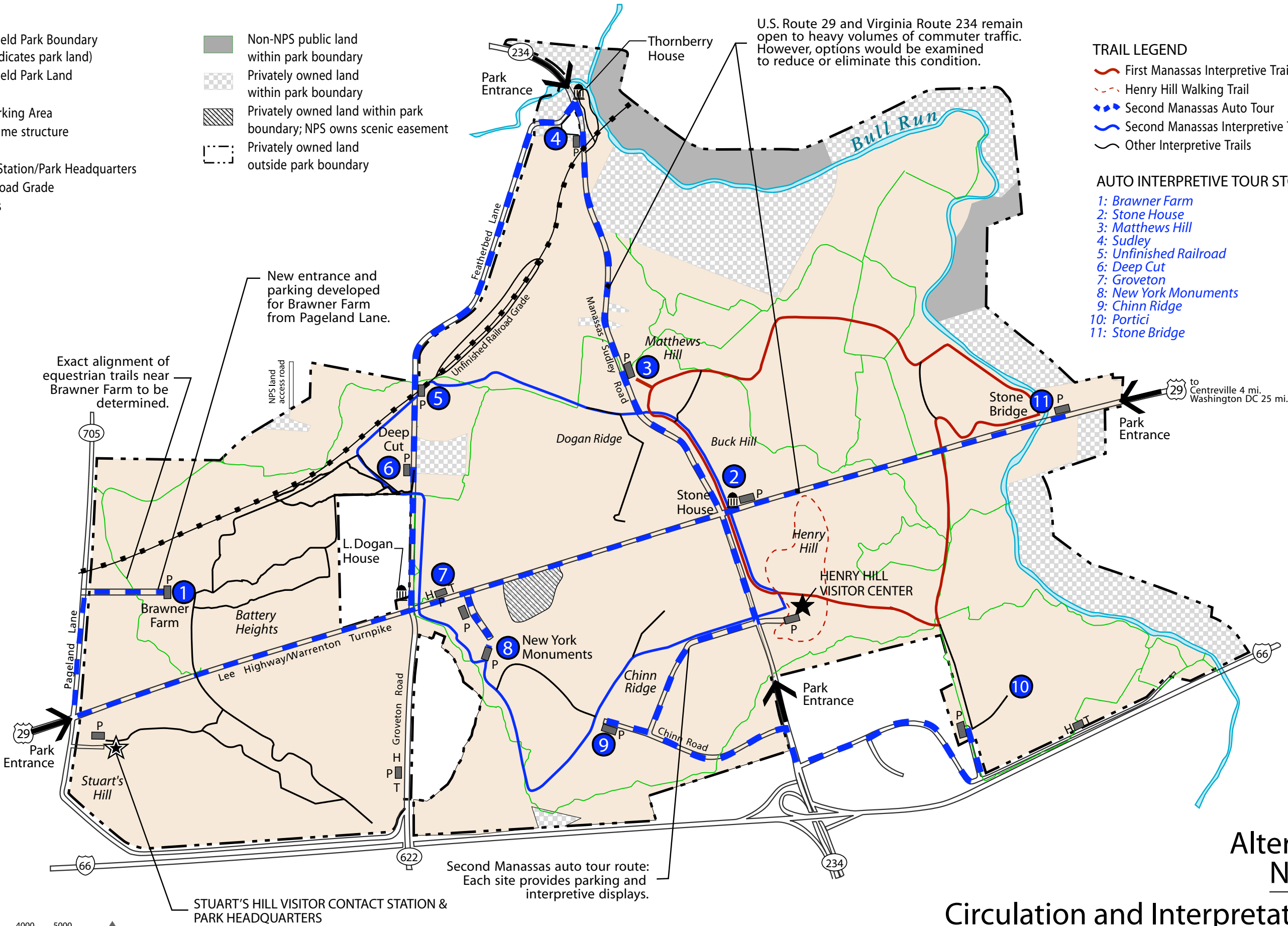
- Non-NPS public land within park boundary
- Privately owned land within park boundary
- Privately owned land within park boundary; NPS owns scenic easement
- Privately owned land outside park boundary

TRAIL LEGEND

- First Manassas Interpretive Trail
- Henry Hill Walking Trail
- Second Manassas Auto Tour
- Second Manassas Interpretive Trail
- Other Interpretive Trails

AUTO INTERPRETIVE TOUR STOPS

- 1: Brawner Farm
- 2: Stone House
- 3: Matthews Hill
- 4: Sudley
- 5: Unfinished Railroad
- 6: Deep Cut
- 7: Groveton
- 8: New York Monuments
- 9: Chinn Ridge
- 10: Portici
- 11: Stone Bridge



Alternative A
No Action
Circulation and Interpretation Map

provided at the tour stops. A new tour stop at and access to Brawner Farm would use a new access road and parking lot currently being implemented. The environmental assessment for the Pageland Lane road and site development for Brawner Farm (including a new parking area) has been completed, and a finding of no significant impact has been issued.

The existing Battery Heights tour stop and parking area on U.S. Route 29 would be removed. Other sites connected by the route include Stone House, Matthews Hill/Dogan Ridge, Sudley, Unfinished Railroad, Deep Cut, Groveton, the New York Monuments, Hazel Plain, Portici, and Stone Bridge, a total of 11 stops.

The hiking trail for Second Manassas is approximately 6 miles long. Visitors would experience the resources of Second Manassas through hiking trails and the existing automobile tour route. The Second Manassas hiking trail and Stuart's Hill Loop Trail would provide visitors with an opportunity to develop a fuller understanding of the battle.

The hiking trail would follow existing trails. There would be relatively low levels of visitor use. The trail would begin at the Henry Hill visitor center and connect resources of Second Manassas, such as the Stone House, Dogan Ridge, the Unfinished Railroad, Deep Cut, Brawner Farm, Groveton, New York Monuments, Chinn Ridge, and Henry Hill.

A visitor contact station would continue to operate seasonally at Stuart's Hill. The functions of the visitor contact station would be to orient visitors to the park and Second Manassas and to interpret the resources of Second Manassas with emphasis on Stuart's Hill and the Brawner Farm area. The area would receive moderate use. The contact station would contain interpretive exhibits and visitor services.

The self-guided Stuart's Hill Loop Trail would begin at the visitor contact station and connect the resources of Stuart's Hill, Brawner Farm,

and the Cundiff and Lewis House sites. The trail would receive moderate use.

CULTURAL LANDSCAPE REHABILITATION AND PRESERVATION

Alternative A would maintain the current pattern of open fields and wooded areas and would continue to attempt to recreate the 1861-1862 scene as was recommended in the 1983 *General Management Plan*. All or a proportionately greater percentage of the park could be rehabilitated to the historic scene if funding became available to accomplish this work. Vegetative buffers would be developed to screen the power lines and development outside the park.

Historic structures and features that date from the battles (Stone House, Thornberry House, L. Dogan House, and Unfinished Railroad), or that are important elements of the park's interpretive focus (Brawner Farm, Henry House, J. Dogan House, and Robinson House ruins) would be the top preservation priority.

The Fiscal Year 2005 construction budget for Manassas National Battlefield Park included \$1.92 million for the rehabilitation of Brawner Farm. This rehabilitation would strengthen the structure itself, and will provide new vehicular access and parking facilities. This would allow Brawner Farm to accommodate the visitation generated by the park's driving tour and interpretive trails.

TRANSPORTATION AND CIRCULATION

Heavy commuter traffic during morning and evening rush hours and heavy commercial truck traffic related to quarry operations outside the park put extremely high traffic loads at all hours of the day on the portions of U.S. Route 29 and VA Route 234 that run through the park. This situation results in truck and car accidents and seriously encroaches on park visitor safety and overall experience.

Through the Battlefield Bypass study, the Federal Highway Administration and National

Park Service worked with the Commonwealth of Virginia and nearby jurisdictions to study the feasibility of relocating through-traffic to routes outside the park. Once constructed, the Battlefield Bypass would remove commuter traffic from the portions of U.S. Route 29 and VA Route 234 that run through in the park. Until completion of the Battlefield Bypass, the current traffic situation would likely continue to compromise park resources and visitor experience. Alternative A does not assume the presence of a finished Battlefield Bypass.

The park does not currently issue licenses for commercial tours of the park, and does not plan to issue such licenses in alternatives A, B, or C.

PARK OPERATIONS AND MAINTENANCE

Alternative A would not alter current park functions. All park functions would continue to occur in their current locations. The park would maintain its current staffing levels of 32 full-time-equivalent employees, with minor adjustments up or down depending on changing park needs and funding levels.

BOUNDARY ADJUSTMENTS

In alternative A, there are no proposed boundary adjustments. Current legislation prohibits such adjustments without legislative action.

ESTIMATED COSTS

The purpose of the cost estimate in a general management plan is to provide a general sense of the cost to implement one alternative relative to other alternatives considered. The relative costs associated with each of the alternatives in this plan have not changed since

the publication of the draft plan. However, how these costs are presented in this *Final General Management Plan* has been modified to reflect a change in NPS policy regarding presentation of costs in general management plans.

The presentation of costs within a general management plan is based on the types and general intensities of development in each alternative, estimated staffing levels that would be required to fully implement the alternative, and deferred maintenance. The cost estimate for this alternative is provided to give a relative sense of its implementation cost when compared to other alternatives described in this plan. All costs have been rounded to the nearest \$100,000, and were estimated based on 2005 dollars. The actual costs to implement the alternative could be higher or lower. For this reason these costs are not appropriate for budgeting purposes. The actual costs will be determined prior to implementation and will be based on the design of facilities and identification of detailed resource protection and visitor experience goals. The cost estimates presented represent the total costs of projects described in the alternatives. Potential cost-sharing opportunities with partners could reduce these overall costs. Approval of the general management plan does not guarantee funding or staffing for proposed actions will be available. Full implementation of the approved general management plan may be many years in the future. The total annual operating costs for this alternative would be \$2.4 million.

The total one-time costs for this alternative would be \$3.4 million, and the cost of deferred maintenance would be \$5 million. For more information, particularly about the changes in how the costs are presented in this plan please see "Appendix D: Estimated Costs."

ALTERNATIVE B (NPS-PREFERRED ALTERNATIVE) - THE TWO BATTLES OF MANASSAS—A COMPREHENSIVE UNDERSTANDING OF EACH BATTLE

CONCEPT

Alternative B proposes a future condition at the park that focuses on interpreting the two battles of Manassas as distinct military events. Visitors would gain a thorough understanding of the first and second battles by visiting two separate visitor contact areas, each focused on one battle. These primary interpretive sites, including a visitor center and a visitor contact station, would be the two main focal points of visitor services in the park. Visitors could explore the many historic sites associated with each event throughout the park. Separate, chronological, sequential, automobile and bicycle tours would be developed for each battle. In this alternative, the rehabilitation of the historic landscape would be critical to enable visitors to understand the events and military tactics associated with each battle. Because of the safety concerns posed by the high traffic volumes on U.S. Route 29 and VA Route 234, separate automobile and bicycle tour routes could not be implemented until the completion of the Battlefield Bypass.

Overall visitor experience and safety would be enhanced by the construction of the Manassas National Battlefield Park Bypass. This road would permit the elimination of heavy commuter and commercial truck traffic on the portions of U.S. Route 29 and VA Route 234 that run through the park. Through traffic would be further limited with the addition of controlled access facilities at the park's four major entry points. Alternative B assumes the presence of a finished Battlefield Bypass.

Map 2-3 depicts the cultural and historic elements of alternative B, while Map 2-4 shows the circulation and interpretation elements. Visitors would experience a battlefield landscape that resembles its wartime appearance. Key interpretive views would help visitors understand how the battles unfolded and the importance of certain locations. Wartime structures would be preserved and

other historic structures would be retained to mark the site of wartime buildings.

ORIENTATION AND VISITOR SERVICES PRESCRIPTION

In alternative B, visitors would experience the battlefields in settings that are characteristic of the wartime scene. They would experience the two battles as distinct military events, starting at separate orientation points, followed by visits to the many other historic sites associated with each event. The existing visitor center at Henry Hill would orient visitors to both battlefields, but would concentrate primarily on First Manassas. The Second Manassas visitor contact station would remain at its current location at Stuart's Hill until it can be moved to the rehabilitated facility at Brawner Farm.

First Manassas Visitor Center

In alternative B, visitors would be encouraged to begin their visit at the Henry Hill visitor center. The Henry Hill visitor center would function as an orientation center for the park as a whole, the primary orientation site for First Manassas, the initial stop for the First Manassas automobile/ bicycle tour, and the beginning and ending point of the First Manassas Hiking Trail. As the primary entry point to the park, Henry Hill would be the visitor's first point of contact with the park staff.

This facility would accommodate a high level of visitor use. Interpretive media, museum collections, and visitor amenities would be concentrated in the visitor center. The interpretive materials at the Henry Hill visitor center would focus on the overall importance and strategy of First Manassas, but general park materials would also be available. A self-guided loop trail would take visitors to Henry Hill to experience the battlefield resources. For a greater understanding of the entire

battle, an automobile tour and bicycle route and a self-guided hiking trail would begin at Henry Hill and connect the resources of First Manassas.

First Manassas Automobile/ Bicycle Tour Route

Under alternative B, the National Park Service would develop a new First Manassas automobile and bicycle tour route. The tour route would help visitors develop a more thorough understanding of the events and stories of First Manassas by visiting important battlefield resources. The self-guided tour route would follow the flow of the battle by chronologically interpreting connected sites such as the Stone Bridge, Sudley Church, Matthews Hill, Henry Hill, Chinn Ridge, and Portici. Short loop trails would encourage visitors to leave the main tour route to experience the resources up close. Interpretive displays along the trails would illustrate the events and stories of the battle.

The park brochure and other media such as an audiotape would explain the route and the first battle. The tour route would use existing roads and trails, and would follow wartime routes where possible. No new roadways or trails would be developed for the tour route. The function of the tour stops would be to provide visitors with the general flow of the battle and information on that specific conflict. The tour stops would receive moderate visitor use and include small parking areas and interpretive displays.

Alternative B would not include the development or implementation of an alternative transportation system to move visitors throughout the park. However, future development of such a system would not be inconsistent with this alternative. A shuttle system or other transport options that would allow visitors to leave their personal vehicles and tour in larger groups could be explored. Current visitation levels make it difficult to support such a system on a continued basis. If future visitation levels dramatically increased, and it became feasible and desirable to develop a park shuttle system, a transportation study to

analyze several transit options would be prepared.

First Manassas Hiking Trail

The location of the First Manassas hiking trail would remain largely unchanged, and would continue to provide visitors with the opportunity to experience the battlefield on foot. The self-guided hiking trail (approximately 5 miles) would link the resources of First Manassas, such as Stone Bridge, the Van Pelt House site, Pittsylvania, Matthews Hill, Stone House, and Henry Hill. Wayside exhibits would interpret the resources and stories along the trail. The hiking trail would also continue to connect to some of the smaller loop and spur trails, which are designed to be primarily accessed from the First Manassas automobile/bicycle tour route. The National Park Service would upgrade current trails and interpretive media on the First Manassas hiking trail as necessary.

Second Manassas Visitor Contact Station

Visitors would receive a brief orientation to the park at the Henry Hill visitor center. Visitors specifically interested in the Battle of Second Manassas would then be directed to the Second Manassas visitor contact station for more detailed orientation and information. The current visitor contact facility at Stuart's Hill would serve as the Second Manassas visitor contact station until the facilities can be moved to Brawner Farm. The Second Manassas visitor contact station would contain a limited amount of interpretive media and museum items relevant to the second battle, as well as basic visitor services (information and orientation) and amenities to accommodate year-round visitor use.

The first stop on the Second Manassas driving tour is Brawner Farm, which was the site of the opening engagement of the Second Battle. The rehabilitation of Brawner Farm would allow that facility to accommodate the visitation generated by the Second Manassas driving

SYMBOL KEY

- National Battlefield Park Boundary
- Picnic area
- Preserved war time structure (structures would be upgraded for visitor use)
- Visitor Center/Contact Station
- Park Headquarters
- Historic House site
- Other historic site
- Unfinished Railroad Grade
- Sites of Major Combat
- Non-NPS public land within park boundary
- Privately owned land within park boundary
- Privately owned land within park boundary; NPS owns scenic easement
- Privately owned land outside park boundary
- Power line easement
- Proposed Boundary Adjustment
- Proposed Forest Cut Areas
- Proposed Re-forestation Areas
- Historic Views Restored

NOTES:

- Orientation and visitor services for both battles would be carried out from two central locations.
- Both battles would be presented as distinct military events.
- Visitors would gain an understanding of both battles by visiting the many sites of each battle.
- Extensive landscape rehabilitation would re-establish major historic views and further clear prominent battlefield sites.

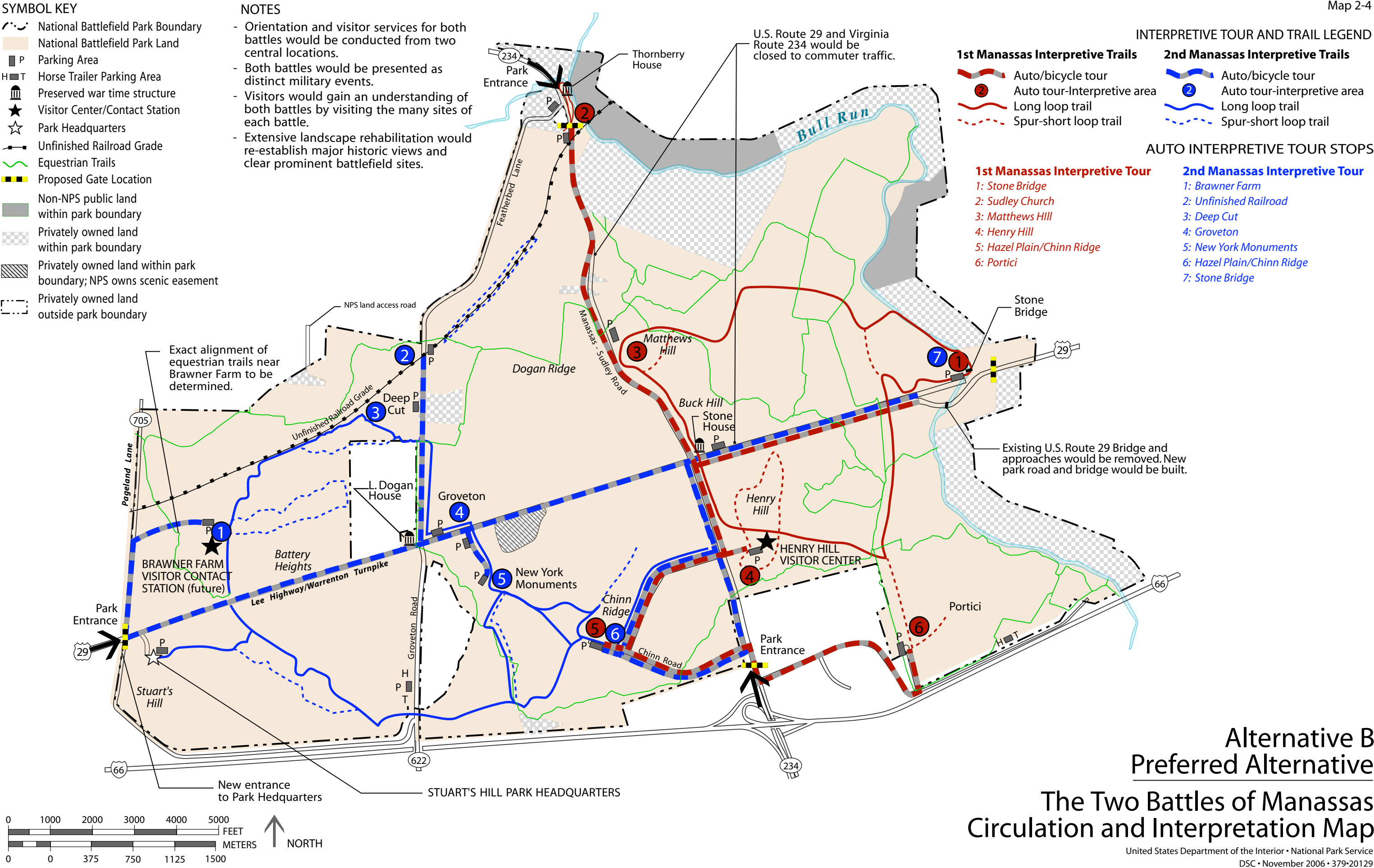
MANAGEMENT ZONES

- Visitor Experience / Services Zone
- Cultural Landscape Rehabilitation/Preservation Zone
- Motorized Sightseeing / Park Circulation Zone
- Recreation Zone
- Park Operations and Maintenance Zone



Alternative B
Preferred Alternative

The Two Battles of Manassas
Cultural and Historic Landscape Map



tour, interpretive trails and, eventually, the visitor contact station.

Second Manassas Automobile/Bicycle Tour Route

The Second Manassas automobile/bicycle tour route would help visitors develop a more thorough understanding of the events and stories of Second Manassas by visiting important battlefield sites. The self-guided tour route would begin at Brawner Farm and would follow the flow of the battle by connecting sites such as Brawner Farm, Unfinished Railroad, Deep Cut, Groveton, New York Monuments, Chinn Ridge, and Stone Bridge.

The park brochure and other media such as an audiotape would explain the route and resources. The tour route would use existing roads and follow wartime routes where possible. No new roads would be developed for the tour route.

The function of the tour stops would be to provide visitors with in-depth information on the many aspects of each element of Second Manassas, and the role of each engagement in the overall battle. The tour stops would receive moderate use and would include small parking areas and interpretive displays. Each tour stop would also include a short loop trail to encourage visitors to leave their cars or bicycles and experience the resources on foot. Interpretive displays along the loop trail would illustrate the events and stories of the battles.

Second Manassas Hiking Trail

The newly configured Second Manassas hiking trail would provide visitors with the opportunity to experience the sites of Second Manassas on foot, while giving the visitor a sense of solitude and discovery. The self-guided hiking trail (approximately 5 miles) would begin at Brawner Farm and would connect many of the resources of Second Manassas, including the Cundiff and Lewis house sites, Brawner Farm, Unfinished Railroad, Deep Cut, Groveton, New York Monuments, and Chinn Ridge. Wayside

exhibits and other media would interpret the resources and stories along the trail. To achieve this condition, the National Park Service would upgrade current trails and interpretive media on the Second Manassas hiking trail, and would create new portions of the trail as necessary.

Equestrian Trails

Bridle trails would traverse the park, but would remain separate from the hiking trails. They would provide visitors with the opportunity to experience the park on horseback. Equestrian trails and parking areas for horse trailers would be provided in areas where they could be safely accommodated without impacting historic resources or other visitor uses. The final alignment of a new equestrian trail near Stuart's Hill, as well as the equestrian trails near Brawner Farm would be determined during the implementation of alternative B.

CULTURAL LANDSCAPE REHABILITATION/PRESERVATION PRESCRIPTION

In alternative B, the wartime battlefield landscape would be the focus of resource protection efforts. The function of the landscape would be to represent the wartime scene and help visitors better understand the battles. Modern intrusions would be minimal.

The current landscape on the battlefields has changed over time from its wartime conditions. To help visitors understand the battles and to provide guidance for the management of natural resources, the landscape would be rehabilitated to the 1861-1862 conditions in several key areas through a combination of tree removal, clearing, and reforestation. The National Park Service would clear several wooded areas in the park and reforest other areas to rehabilitate the historic landscape as was recommended in the 1983 *General Management Plan*. In this alternative, approximately 327 acres of forest would be removed, which is nearly the amount identified in the 1983 *General Management Plan*. Approximately 82 acres of land that is

currently open field and grassland would be reforested as it was historically.

The areas to be cleared would be managed as open grassland (or, in a few instances, shrub) communities that would be desirable habitat for a variety of birds and wildlife, while still restoring historic vistas for the visitors. Maintaining some of these areas with a lawnmower or other machinery may be prohibited because of terrain. In those cases, prescribed burns would be considered as a potential management tool to help small parcels maintain their historic appearance.

The following historic scene rehabilitation activities would be conducted:

- Approximately 100 acres of woodlands northeast of Brawner Farm, along the Unfinished Railroad grade, and around Deep Cut would be cleared and replaced with open fields and grasslands. This would reestablish the view from Brawner Farm to Deep Cut.
- Approximately 45 acres of woods along the west side of Chinn Ridge would be cleared and replaced with open fields and grasslands to reestablish the view between the ridge and the site of the New York Monuments.
- Approximately 25 acres of woods along the east side of the Chinn Ridge would be cleared and replaced with open fields and grassland to reestablish the view between Chinn Ridge and Henry Hill. The riparian buffer along Chinn Branch would be retained.
- The current Stuart's Hill clearing would be expanded by approximately 30 acres to the east. The clearing would restore the view from General Lee's headquarters towards Centreville during Second Manassas. Approximately 20 acres of land that is currently open space south of Stuart's Hill would be reforested. The historic landscape around the Cundiff House would be rehabilitated to wartime conditions. Approximately 40 acres of trees would be removed and converted to

grassland and/or scrubland.

Approximately 15 acres of land that is currently open space would be reforested.

- Approximately 20 acres along the north-central portion of Dogan Ridge would be reforested, and a small area of 3 acres along the curve of the Sudley-Manassas Road would be cleared and managed as open fields.
- Approximately 35 acres of trees would be removed from Matthews Hill and the open fields rehabilitated. To the north, an area of approximately 25 acres would be reforested.
- An additional 5 acres of land along Bull Run to the west of Poplar Ford would be reforested.

To minimize the environmental impact of the tree clearings, the National Park Service would employ best management practices for each phase of the clearings.

Preservation and Rehabilitation of Historic Structures and Sites Prescription

Historic buildings, commemorative features, and site markers are important elements of the battlefield landscape. The National Park Service would continue to preserve historic structures and features, including those that date from the battles, such as Stone House, L. Dogan House, Thornberry House, and the Unfinished Railroad. Buildings and structures that do not date from the battles but are historic or mark the site of wartime structures would be stabilized to function as important interpretive sites or maintained for park uses. These structures include the Brawner Farm House, Henry House, J. Dogan House, Pringle House, and Stone Bridge.

In addition to continued protection of these structures, the National Park Service would initiate several actions:

- Rehabilitate the Brawner Farm House (beginning in Fiscal Year 2005) to support public visitation, as part of the Second Manassas tour route.

- Create a "ghosted" outline of the Robinson House ruins. From the Civil War period.
- Preserve and stabilize the J. Dogan House. This preservation effort would include removing nonconforming structural elements such as siding and removing the nonconforming modern garage.
- The existing U.S. Route 29 bridge over Bull Run would be removed to eliminate modern intrusions from the battlefield landscape and to return the site to a more historic appearance.

MOTORIZED SIGHTSEEING AND CIRCULATION PRESCRIPTION

To minimize the impacts of traffic congestion and to enhance the visitor experience on the battlefields, the portions of U.S. Route 29 and VA Route 234 within the boundaries of the park would be transferred to the jurisdiction of the National Park Service and the speed limits would be reduced to 25 miles per hour. These actions would be taken once the Battlefield Bypass is complete. Traffic would be further controlled by providing restricted access to the park at the north and south entrances (VA Route 234), and at the east and west boundary (U.S. Route 29) of the park.

These new entrance facilities would be the primary location for collection of park entrance fees. These facilities could either be staffed by park personnel or, in some cases, might be designed as fully automated gates. A more detailed examination of the layout, facility design, and operational characteristic of these entrance stations would be part of subsequent planning and design efforts. Separate accommodation would be made to give unhindered park access to emergency vehicles, park residents, local deliveries, and other essential services.

Designated bicycle lanes would be marked along primary roads throughout the park. The signalized intersection at U.S. Route 29 and VA Route 234 would be replaced with a four-way stop to reduce the real and perceived scale of the road and return it to its historic character.

Excess pavement and other physical alterations to the intersection would be removed in this alternative, as a way to reduce the scale of the road crossing and restore the historic and more rural appearance of the intersection. In this alternative, the existing U.S. Route 29 bridge over Bull Run would be removed and a replacement bridge would be constructed in a new location with fewer impacts on the cultural landscape. A parking lot to the west of Stone Bridge would enable visitors to walk to and see the historic bridge and associated sites inside the park.

RECREATION PRESCRIPTION

A newly designated recreation area would be developed off Groveton Road to accommodate approved recreational activities, bus parking, and equestrian trail parking. This area is removed from the primary historic landscapes and major interpretive sites. Visitor facilities such as restrooms and picnic tables would be found in this area.

PARK OPERATIONS AND MAINTENANCE PRESCRIPTION

Alternative B would not alter the locations of current park administrative and operational functions. If additional space was needed for park operations in the future, park structures would be adaptively reused. Should the park require any major new facilities, they would be located on disturbed ground within the park where there is no likelihood of encountering war-related artifacts or features, or at a location outside the current park or historic district boundaries, should an opportunity or need for a partnership facility arise. A new access road would be developed to the headquarters building at Stuart's Hill from U.S. Route 29, and the existing access road would be closed and the landscape rehabilitated.

A new operational consideration in this alternative would be the change in ownership of the portions of U.S. Route 29 and VA Route 234 within the boundaries of the park. As proposed, these roads would be turned over by the Commonwealth of Virginia to the National

Park Service. As part of the Battlefield Bypass study, the details of this acquisition and the related impacts and issues concerning maintenance and management of these roadways would be determined. Estimates provided by the Battlefield Bypass study team and the Virginia Department of Transportation indicate that, after acquisition and removal of the signalized intersection, the portions of U.S. Route 29 and VA Route 234 within the park would cost approximately \$35,000 to \$40,000 per year (in 2005 dollars) to maintain.

Staffing levels over the next 15 to 20 years would increase under this alternative. To accommodate the proposed interpretive needs, maintenance requirements, law enforcement, and overall management of the resources, an additional 18 full-time-equivalent employees would be necessary to fully implement this alternative. Not all of the additional employees would need to be National Park Service employees. The park would explore opportunities to work with partners, volunteers, and other federal agencies to effectively and efficiently manage the park.

The increase in personnel would be necessary to implement the expanded and enhanced interpretation opportunities in the alternative. There would also be a greater demand for resources once the park assumed primary jurisdiction over the portions of U.S. Route 29 and VA Route 234 within the park. Visitation in the park is expected to increase over the life of the plan, which would result in a greater demand for visitor safety, law enforcement, and resource protection services.

BOUNDARY ADJUSTMENTS

In alternative B a boundary adjustment to the park would be necessary to include the four tracts of land described below. This adjustment would require legislation to amend the existing boundary.

The Davis Tract: A 136-acre parcel of land west of Featherbed Lane across from the northwestern edge of the current park

boundary. This parcel was recently acquired by the Civil War Preservation Trust and a group of local residents. The land is important to the Battle of Second Manassas as a site where General Thomas J. “Stonewall” Jackson maneuvered and withstood repeated assaults. Thus, it is especially key to the story at Manassas National Battlefield Park.

The Stonewall Memory Garden Tract: A 43-acre parcel located in the northern half of the Stonewall Memory Garden and north of the L Dogan House on the west side of Featherbed Lane. The parcel is not part of cemetery operations. This property is, without question, the most important property currently outside the park boundaries. On this site, Union general Fitz-John Porter led an assault on Jackson’s line along the Unfinished Railroad on the last day of Second Manassas (August 30, 1862). A sliver of land that was part of that assault is currently within the park boundary. The additional 43 acres would include all land associated with that part of the battle and would allow full interpretation of the story.

The Conservation Trust Parcel: A 24.25-acre tract of land purchased by the Conservation Trust in 1991 and located almost entirely within the park boundary. The Conservation Trust transferred that land to the National Park Service, but a small piece (0.75 acre) east of Pageland Lane was outside the park boundary. Since that time, the Conservation Trust has transferred the land to the Civil War Preservation Trust, which has expressed interest in donating the land to the park.

Dunklin Monument: A 6-acre parcel of land near the park headquarters south of Route 29 on the west side of Pageland Lane. The family of a Texas Confederate soldier, Timothy Dunklin, who was killed at Second Manassas, erected the monument. Dunklin is believed to be buried under the monument, and some accounts indicate that other Confederate soldiers are buried nearby. The Dunklin Monument tract is part of an estate called the Latsios Trust. The family owns some 177 acres in two adjoining parcels and has expressed a strong interest in developing the land as an

office/high technology complex. Several years ago, the Virginia Department of Transportation purchased a right-of-way through the property, just to the west of the monument, which left the monument intact along with about 6 acres.

ESTIMATED COSTS

The purpose of the cost estimate in a general management plan is to provide a general sense of the cost to implement one alternative relative to other alternatives considered. The relative costs associated with each of the alternatives in this plan have not changed since the publication of the draft plan. However, how these costs are presented in this *Final General Management Plan* has been modified to reflect a change in NPS policy regarding presentation of costs in general management plans.

The presentation of costs within a general management plan is based on the types and general intensities of development in each alternative, estimated staffing levels that would be required to fully implement the alternative, and deferred maintenance. The cost estimate for this alternative is provided to give a relative sense of its implementation cost when compared to other alternatives described in this plan. All costs have been rounded to the nearest \$100,000 and were estimated based on 2005 dollars. The actual costs to implement the alternative could be higher or lower. For this reason these costs are not appropriate for

budgeting purposes. The actual costs will be determined prior to implementation and will be based on the design of facilities and identification of detailed resource protection and visitor experience goals. The cost estimates presented represent the total costs of projects described in the alternatives. Potential cost-sharing opportunities with partners could reduce these overall costs. Approval of the general management plan does not guarantee that funding or staffing for proposed actions will be available. Full implementation of the approved general management plan may be many years in the future. The total annual operating costs for this alternative would be \$3.4 million.

The total one-time costs for this alternative would be \$33 million, and the cost of deferred maintenance would be \$5 million. For more information, particularly about the changes in how the costs are presented in this plan, please see “Appendix D: Estimated Costs.”

The costs associated with the demolition of the modern bridge on U. S. Route 29, construction of a new bridge with fewer impacts on the cultural landscape, and the associated realignment of U.S. Route 29 are identified as part of the one-time costs for this *Final General Management Plan* because they would occur within park boundaries. However, these actions and the associated costs have been accounted for in the mitigation measures for the Battlefield Bypass and would likely be funded in a separate appropriation.

ALTERNATIVE C—THE DEFINING MOMENTS OF THE BATTLES OF MANASSAS—AN UNDERSTANDING OF THE PRINCIPAL EVENTS

CONCEPT

Alternative C focuses on the “watershed” events of the battles, encouraging visitors towards one major visitor center and multiple interpretive sites. Interpretation of these general events, the outcomes of the battles, and the broader story of the Civil War would be emphasized over the detailed military tactics of each battle. Although other sites in the park would be accessible, the concentration of interpretation and visitor use would be in areas that illustrate the “defining” moments of the battles. Rehabilitating the historic scene in these areas would be important to help visitors understand these principal events.

In alternative C, the overall reasons and strategy for the Civil War would be presented in a comprehensive way. The importance of the Manassas battles would be presented in the overall context of the Civil War. Other stories, such as the local families and African Americans that were affected by the Manassas battles, could be interpreted in the park. Map 2-5 depicts the cultural and historic elements of alternative C.

The general stories and outcomes of the battles would also be presented. Orientation and visitor services for both battles would be carried out from a central location. The visitor experience would not be highly structured and key interpretive areas could be visited without regard to order or sequence. Visitors could tailor their visit to those elements of the battles in which they were most interested.

Key interpretive areas would explain the battle events. In these areas, historic structures would serve interpretive functions and would be accessible to visitors. Extensive interpretive displays would explain the battle events, and view corridors would be developed to enhance visitor understanding of key battle events. The National Park Service would also establish vegetative buffers and design visitor areas so

that adjacent development could not be seen. Map 2-6 depicts the circulation and interpretation elements of alternative C.

Overall visitor experience and safety would be enhanced by the construction of the Manassas National Battlefield Park Bypass. This road would eliminate heavy commuter and commercial truck traffic from the portions of U.S. Route 29 and VA Route 234 that run through the park. Through traffic would be further limited with the addition of controlled access points. Alternative C assumes the presence of a finished Battlefield Bypass.

ORIENTATION AND VISITOR SERVICES PRESCRIPTION

In alternative C, visitors would be able to move through the park and experience the battlefields in a setting that is characteristic of the historic scene. Visitors would be oriented to the park at a new visitor center near Stone Bridge. Here they would learn about the watershed events of the war. Visitors would be encouraged to visit key sites throughout the park for specific interpretation of battle events. The visitor center at Henry Hill would be removed, rehabilitating the historic landscape and battlefield scene in this location.

Stone Bridge Visitor Center

In alternative C, a new visitor center near Stone Bridge and the eastern boundary of the park would function as the initial stop and primary orientation point for park visitors. The area would accommodate a high level of visitor use by including a parking area and visitor services in the visitor center.

The function of the new visitor center would be to orient visitors to the park and to present the overall strategy and tactics of the two battles. The focus of interpretation at this visitor center would be on the comprehensive story of the Civil War. The visitor center would

also highlight key interpretive sites throughout the park. Visitors could then visit by automobile or bicycle the sites of both battles that interested them. Formal tour routes would not exist.

The relocation of the visitors' facilities would require a feasibility study to evaluate the proposed location. This relocation would create a major new entry point to the park that would correspond with proposed access changes associated with eliminating commuter traffic from the park. A new access road and bridge over Bull Run would be constructed to minimize impacts on the historical scene. Should partnership opportunities present themselves, a Civil War Museum and Heritage Center, which would interpret the local impact of the Civil War, would be explored as part of the new visitor center.

The Henry Hill visitor center is in the area of the most intense fighting of First Manassas. In this alternative, upon completion of consultation under Section 106 of the National Historic Preservation Act, the Henry Hill visitor center would be removed from Henry Hill, allowing for the rehabilitation of the historic battlefield landscape.

Key Interpretive Sites

Key interpretive sites throughout the park would convey the overall stories of the Battles of First and Second Manassas, as well as major stories specific to each particular site. Visitors would not need to visit all of the sites or visit them in a sequence to understand the battles. Visitors would have the freedom to experience as many or as few of the sites as they wished while gaining a general understanding of the battles.

The key interpretive sites would include Brawner Farm, Chinn Ridge, Deep Cut/Unfinished Railroad, Groveton/New York Avenue, Henry Hill, Portici, Stone Bridge, Stone House, Stuart's Hill, and Sudley.

Each of these sites would receive moderate to high visitor use and would include a parking area and interpretive loop trail. Living history

and other interpretive programs would be concentrated at these sites. Extensive interpretive exhibits would be provided at a greater level than in alternative B and, where possible, would be incorporated into historic structures or important engagement sites.

Each site would convey four basic messages

- The overall story of the Civil War
- The general strategy and tactics of the Battles of First and Second Manassas
- Detailed interpretation of the site and its role and impacts on the battles
- A description of other major sites in the park

Each site could also include information on archeology, social history, and other similar topics. To meet these conditions, the National Park Service would initiate several actions:

- Extensive interpretive displays would be developed for each of the key interpretive sites, and current loop trails would be upgraded to enhance the visitor's experience and understanding of the Civil War and the two battles.
- The Thornberry House and Henry House have been rehabilitated to accommodate interior interpretive exhibits. Similar improvements are underway at the Brawner House.
- The informal parking area at the gate to Brawner Farm along the Warrenton Turnpike would be removed and this important view would be restored. The current Battery Heights parking area would be removed and the interpretive displays would be incorporated into the Brawner Farm program.
- The trail that connects the Groveton parking area with the L. Dogan House, the Groveton Confederate Cemetery, and the New York Monuments would be retained.
- New interpretive displays for Second Manassas would be installed at a visitor contact station at Brawner Farm.

- Depending on the exact location of the new bypass, a new entrance roadway and improved parking areas at Stuart's Hill would help minimize the visual impact of the high voltage transmission lines along the park's western boundary.

Battlefield Trails

Current hiking trails would be redesigned to create two separate, 5-mile-long hiking trails for First Manassas and Second Manassas. The primary function of the trails would be to provide those visitors interested in the military and tactical aspects of the battles with an opportunity to gain a more thorough understanding of the battles. A secondary function of the trails would be to provide visitors with solitude and a sense of discovery. The First Manassas hiking trail would begin and end at the Stone Bridge and would link sites related to the first battle. The Second Manassas hiking trail would begin and end at Brawner Farm and would link the resources related to the second battle.

Equestrian Trails

Bridle trails would traverse the park, but would remain separate from the hiking trails. They would provide visitors with the opportunity to experience the park on horseback. Equestrian trails and parking areas for horse trailers would be provided in areas where they could be safely accommodated without impacting historic resources or other visitor uses. The final alignment of a new equestrian trail near Stuart's Hill, as well as the equestrian trails near Brawner Farm, would be determined during the implementation of alternative C.

CULTURAL LANDSCAPE REHABILITATION/PRESERVATION PRESCRIPTION

Alternative C would not attempt to re-create the historic landscape and would manage the current patterns of open fields and wooded areas. Historic views would be explained through interpretive exhibits. In those areas where especially important views are obscured by modern tree cover, view corridors would be

established. These corridors would not attempt to represent the extent of the historic field pattern. However, the cleared corridors would provide a line of sight between important features and would be wide enough to avoid encroachment by the wooded areas. Riparian buffer zones would protect bottomland forests and wetlands within perimeters of proposed cuts. Where the battlefield resources were maintained to represent the wartime scene, interpretive exhibits would be created to allow visitors to understand the role of the landscape and the battlefield terrain on the events of the two battles.

To meet these conditions, the National Park Service would initiate the following actions:

- The current view corridor at Deep Cut would be widened by removing approximately 40 acres of trees.
- A view corridor would be reestablished from Chinn Ridge to the New York Monuments by removing approximately 30 acres of trees.

To minimize the environmental impact of the tree clearings, the National Park Service would employ best management practices for each phase of the clearings.

Preservation and Rehabilitation of Historic Structures and Sites

Historic structures and features, including those that date from the battles, would be preserved and would be prominent features at the key interpretive sites. These structures include the Stone House, L. Dogan House, Thornberry House, Robinson House ruins, and Unfinished Railroad. Other structures that do not date from the battles but that are historic or mark the site of wartime structures would be retained as important engagement sites or for park uses. These structures include Brawner House, Henry House, J. Dogan House, Pringle House, and Stone Bridge.

SYMBOL KEY

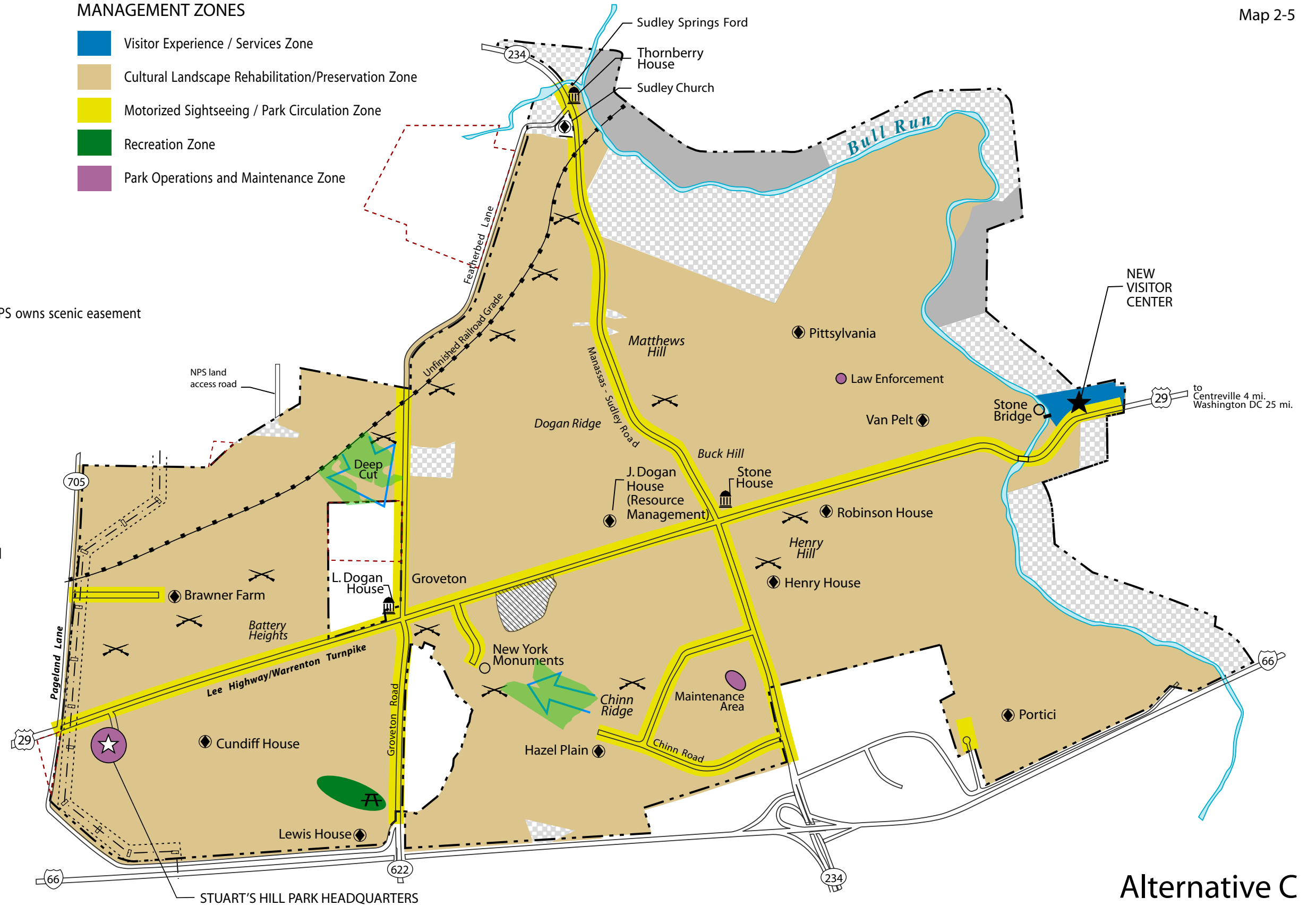
- National Battlefield Park Boundary
- Picnic area
- Preserved war time structure (structures would be upgraded for visitor use)
- Visitor Center
- Park Headquarters
- Historic House site
- Other historic site
- Unfinished Railroad Grade
- Sites of Major Combat
- Non-NPS public land within park boundary
- Privately owned land within park boundary
- Privately owned land within park boundary; NPS owns scenic easement
- Privately owned land outside park boundary
- Power line easement
- Proposed Boundary Adjustment
- Proposed Forest Cut Areas
- Historic Views Restored

MANAGEMENT ZONES

- Visitor Experience / Services Zone
- Cultural Landscape Rehabilitation/Preservation Zone
- Motorized Sightseeing / Park Circulation Zone
- Recreation Zone
- Park Operations and Maintenance Zone

NOTES:

- Visitors would gain an overall understanding of both battles by visiting the sites of "watershed" events.
- A few important view corridors would be developed, but landscape rehabilitation would not be extensive.
- A new visitor's center would be located near Stone Bridge. The new visitor center would orient visitors to the park and would present the overall strategy and tactics of the two battles. The interpretive focus of this visitor center would be on the Comprehensive Story of the Civil War.



Alternative C

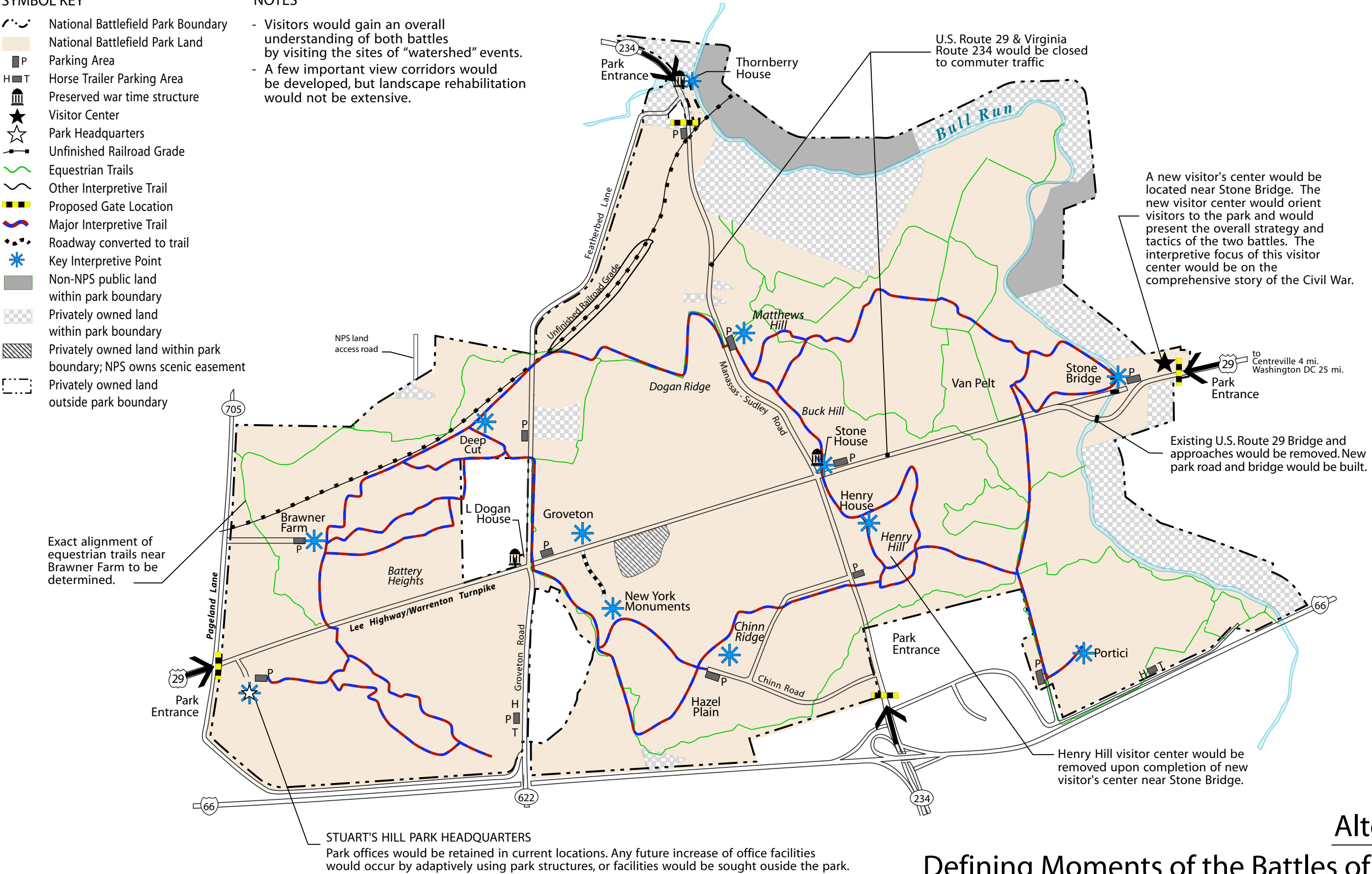
Defining Moments of the Battles of Manassas
Cultural and Historic Landscape Map

SYMBOL KEY

- National Battlefield Park Boundary
- National Battlefield Park Land
- Parking Area
- Horse Trailer Parking Area
- Preserved war time structure
- Visitor Center
- Park Headquarters
- Unfinished Railroad Grade
- Equestrian Trails
- Other Interpretive Trail
- Proposed Gate Location
- Major Interpretive Trail
- Roadway converted to trail
- Key Interpretive Point
- Non-NPS public land within park boundary
- Privately owned land within park boundary
- Privately owned land within park boundary; NPS owns scenic easement
- Privately owned land outside park boundary

NOTES

- Visitors would gain an overall understanding of both battles by visiting the sites of "watershed" events.
- A few important view corridors would be developed, but landscape rehabilitation would not be extensive.



Alternative C

Defining Moments of the Battles of Manassas
Circulation and Interpretation Map

In addition to continued protection of these structures, the National Park Service would initiate the following actions:

- Rehabilitate the Brawner Farm House (beginning in Fiscal Year 2005) to support public visitation, as part of the automobile/bicycle tour route.
- Stabilize and upgrade the L. Dogan House to function as a key interpretive site with exhibits, parking, and trail access.
- Use the Stone House as a key interpretive site with exhibits, parking, and trail access. The house has been rehabilitated, and it has both furnishings and exhibits, with parking already available. It would be a fully functional interpretive site under this alternative.
- Use the Thornberry House as a key interpretive site with exhibits, parking, and trail access.

MOTORIZED SIGHTSEEING AND CIRCULATION PRESCRIPTION

To minimize the impacts of traffic congestion and enhance the visitor experience on the battlefields, the portions of U.S. Route 29 and VA Route 234 within the boundaries of the park would be transferred to the jurisdiction of the National Park Service and the speed limits would be reduced to 25 miles per hour. Once a new bypass route was in place, traffic would be further controlled by providing restricted access to the park at the north and south entrances (VA Route 234), and at the east and west boundaries (U.S. Route 29) of the park.

These new entrance facilities would also be the primary location for collection of park entrance fees. These facilities could either be staffed by park personnel or, in some cases, might be designed as fully automated gates. A more detailed examination of the layout, facility design, and operational characteristic of these entrance stations would be part of subsequent planning and design efforts. It is possible that these other entrances could be closed as park access points. Separate accommodation would be made to give unhindered

park access to emergency vehicles, residents, local deliveries, and other essential services.

To create a more appropriate roadway system within the park, the signalized intersection at U.S. Route 29 and VA Route 234 would be replaced with a four-way stop, and the historic character would be restored by returning roads to a two-lane width throughout. With reduced speed limits, designated bicycle lanes would be marked along primary roads throughout the park. Although not specific to this proposal, it would be consistent with this alternative for National Park Service to, when possible, redesign the roads (with narrower pavement, historic grades, and other features) to minimize their impact on the battlefields.

In this alternative, the existing U.S. Route 29 bridge over Bull Run would be removed and a replacement bridge would be constructed in a new location with fewer impacts on the historic landscape. This would occur in conjunction with the Battlefield Bypass and the development of a new visitor center near Stone Bridge. This area would also serve as the primary entrance for park visitors.

In this alternative, the National Park Service would explore the development of an alternative transportation system to move visitors throughout the park. A shuttle system or other transportation options that would allow visitors to leave their personal vehicles and tour in larger groups could be explored. Current visitation levels make it difficult to support such a system on a continued basis. However, if future visitation levels dramatically increased and it became feasible and desirable to develop a park shuttle system, a transportation study to analyze several transit options would be prepared.

RECREATION PRESCRIPTION

A newly designated recreation area would be developed off Groveton Road to accommodate approved recreational activities, bus parking, and equestrian trail parking. This area is away from the primary historic landscapes and major interpretive sites. Visitor facilities

such as restrooms and picnic tables would be present in this area.

PARK OPERATIONS AND MAINTENANCE PRESCRIPTION

Alternative C would not alter the locations of current park administrative and operational functions. If additional space was needed for park operations in the future, existing park structures would be adaptively reused. It would also be consistent with alternative C to relocate some office and/or administrative functions to the new visitor center facility at Stone Bridge.

A new operational consideration in this alternative would be the change in ownership of U.S. Route 29 and VA Route 234 within the boundaries of the park. As proposed, these roads would be turned over from the Commonwealth of Virginia to the National Park Service. As part of the Battlefield Bypass study, the details of this acquisition and the related impacts and issues concerning maintenance and management of these roadways would be determined. Estimates provided by the Battlefield Bypass study team and the Virginia Department of Transportation indicate that, after acquisition and removal of the signalized intersection, the portions of U.S. Route 29 and VA Route 234 within the park would cost approximately \$35,000 to \$40,000 per year (in 2005 dollars) to maintain.

Staffing levels over the next 15 to 20 years would increase under this alternative. To accommodate the proposed interpretive needs, maintenance requirements, law enforcement, and overall management of the resources, an additional 25 full-time-equivalent employees would be necessary to fully implement this alternative. Not all the additional full-time-equivalent employees would need to be National Park Service employees. Park managers would explore opportunities to work with partners, volunteers, and other federal agencies to effectively and efficiently manage the park.

The increase in personnel would be necessary to implement the expanded and enhanced interpretation opportunities in the alternative. There would also be a greater demand for resources once the park assumed primary jurisdiction over the portions of U.S. Route 29 and VA Route 234 within the park. Visitation in the park is expected to increase over the life of the plan, which would also result in a greater demand for visitor safety, law enforcement, and resource protection services.

BOUNDARY ADJUSTMENTS

In alternative C a boundary adjustment to the park would be necessary to include the four tracts of land described below. This adjustment would require legislation to amend the existing boundary.

The Davis Tract: A 136-acre parcel of land west of Featherbed Lane across from the northwestern edge of the current park boundary. This parcel was recently acquired by the Civil War Preservation Trust and a group of local residents. The land is important to the Battle of Second Manassas as a site where General Thomas J. “Stonewall” Jackson maneuvered and withstood repeated assaults. Thus it is especially key to the story at Manassas National Battlefield Park.

The Stonewall Memory Garden Tract: A 43-acre parcel located in the northern half of the Stonewall Memory Garden and north of the L Dogan House on the west side of Featherbed Lane. The parcel is not part of cemetery operations. This property is, without question, the most important property currently outside the park boundaries. On this site, Union general Fitz-John Porter led an assault on Jackson’s line along the Unfinished Railroad on the last day of Second Manassas (August 30, 1862). A sliver of land that was part of that assault is currently within the park boundary. The additional 43 acres would include all land associated with that part of the battle and would allow full interpretation of the story.

The Conservation Trust Parcel: A 24.25-acre tract of land purchased by the Conservation

Trust in 1991 and located almost entirely within the park boundary. The Conservation Trust transferred that land to the National Park Service, but a small piece (0.75 acre) east of Pageland Lane, was outside the park boundary. Since that time, the Conservation Trust has transferred the land to the Civil War Preservation Trust, which has expressed interest in donating the land to the park.

Dunklin Monument: A 6-acre parcel of land near the park headquarters south of Route 29 and on the west side of Pageland Lane. The family of a Texas Confederate soldier, Timothy Dunklin, who was killed at Second Manassas, erected the monument. Dunklin is believed to be buried under the monument, and some accounts indicate that other Confederate soldiers are buried nearby. The Dunklin Monument tract is part of an estate called the Latsios Trust. The family owns some 177 acres in two adjoining parcels and has expressed a strong interest in developing the land as an office/high technology complex. Several years ago, the Virginia Department of Transportation purchased a right-of-way through the property, just to the west of the monument, which left the monument intact along with about 6 acres.

ESTIMATED COSTS

The purpose of the cost estimate in a general management plan is to provide a general sense of the cost to implement one alternative relative to other alternatives considered. The relative costs associated with each of the alternatives in this plan have not changed since the publication of the draft plan. However, how these costs are presented in this *Final General Management Plan* has been modified to reflect a change in NPS policy regarding presentation of costs in general management plans.

The presentation of costs within a general management plan is based on the types and general intensities of development in each

alternative, estimated staffing levels that would be required to fully implement the alternative, and deferred maintenance. The cost estimate for this alternative is provided to give a relative sense of its implementation cost when compared to other alternatives described in this plan. All costs have been rounded to the nearest \$100,000 and were estimated based on 2005 dollars. The actual costs to implement the alternative could be higher or lower. For this reason these costs are not appropriate for budgeting purposes. The actual costs will be determined prior to implementation and will be based on the design of facilities and identification of detailed resource protection and visitor experience goals. The cost estimates presented represent the total costs of projects described in the alternatives. Potential cost-sharing opportunities with partners could reduce these overall costs. Approval of the general management plan does not guarantee funding or staffing for proposed actions will be available. Full implementation of the approved general management plan may be many years in the future. The total annual operating costs for this alternative would be \$3.8 million.

The total one-time costs for this alternative would be \$49.3 million, and the cost of deferred maintenance would be \$5 million. For more information, particularly about the changes in how the costs are presented in this plan, please see “Appendix D: Estimated Costs.”

The costs associated with the demolition of the modern bridge on U. S. Route 29, construction of a new bridge with fewer impacts on the cultural landscape and the associated realignment of U.S. Route 29 are identified as part of the one-time costs for this *Final General Management Plan* because they would occur within park boundaries. However, these actions and the associated costs have been accounted for in the mitigation measures for the Battlefield Bypass and would likely be funded in a separate appropriation.

ALTERNATIVES CONSIDERED BUT ELIMINATED FROM FURTHER ANALYSIS

In response to comments submitted on the *Draft General Management Plan / Environmental Impact Statement*, the National Park Service considered an additional alternative concept for the *General Management Plan*. This alternative would be similar to alternative A, the no-action alternative. Under this concept, U.S. Route 29 and VA Route 234 would continue to serve as the main commuter arteries in the area. Traffic-related adverse impacts would be mitigated by a number of measures, including upgrades of other local roads to carry additional traffic, improved shoulders, and traffic calming improvements such as roundabouts.

This option was dismissed because the proposal to construct or not construct the bypass is beyond the scope of the general management plan. The Battlefield Bypass study is being conducted in response to a Congressional mandate to consider and develop plans for the closing of the in-park segments of these public highways.

The Manassas National Battlefield Park Amendments of 1988 were enacted to preserve the most important historic properties related to the battles of Manassas. It was determined at that time that highway expansion and resulting increased traffic on U.S. Route 29 and VA Route 234 could pose too great an impact on the natural and cultural resources of Manassas National Battlefield Park and that alternative routes for traffic were required.

Specifically, Congress directed that the "Secretary of the Interior...in consultation and consensus with the Commonwealth of Virginia, the Federal Highway Administration, and Prince William County, shall conduct a study regarding the relocation of highways (known as routes 29 and 234) in, and in the vicinity of, the Manassas National Battlefield Park. . . . The study shall specifically consider and develop plans for the closing of these

public highways (known as routes 29 and 234) that transect the park and shall include analysis of the timing and method of such closures and of means to provide alternative routes for traffic now transecting the park."

Population growth forecasts for the region project substantial increases through the year 2025. It is anticipated that the population of Fairfax County will grow by 24 percent during this period, Loudoun County will grow by 195 percent, and Prince William County will grow by 41 percent.

It is reasonable to extrapolate that traffic volumes will increase at similar rates over this period. The growth in traffic volume over the recent past supports this assumption. Traffic volumes within the park increased on VA Route 234 south of U.S. Route 29 at an average rate of 1.3 percent annually between 1996 and 2002. Traffic on U.S. Route 29 east of U.S. Route 29 increased at an average rate of 6.1 percent annually over this same period.

According to the NPS' *Director's Order #12 and Handbook: Conservation Planning, Environmental Impact Analysis, and Decision Making*, the following criteria must be considered in a decision to dismiss an alternative:

- Technical or economic infeasibility.
- Inability to meet project objectives or resolve needs.
- Duplication with other, less environmentally damaging or less expensive alternatives.
- Conflict with an up-to-date and valid park plan, statement of purpose and significance, or other policy, such that a major change in the plan or policy would be needed to implement.
- Too great an environmental impact.

The decision to dismiss this alternative was based on Criteria A, D, and E. Given the likely increase in regional traffic volumes over the next 15 to 20 years, U.S. Route 29 and VA Route 234 could not accommodate additional traffic volume without widening the roads. Traffic already meets or exceeds capacity for these roads. Traffic calming techniques would be inadequate to manage these levels of use. It is not feasible to widen these roads beyond the existing road bed, as widening would result in too great an impact on the cultural landscape of the park. Current traffic loads pose unacceptable safety risks, which would only worsen with traffic increases.

This proposal would be in conflict with the Manassas National Battlefield Park Amendments, which Congress passed in 1988. This legislation mandated a study regarding the relocation of U.S. Route 29 and VA Route 234 and specifically “the closing of the public highways that transect the park” (see HR 4333, Title X, § 10004). The resulting Battlefield Bypass study assessed the impacts of continued

use of VA Route 234 and U.S. Route 29 as the main commuter routes in the park. This analysis determined that this use would result in moderate adverse impacts on the cultural landscapes in the park.

Any construction to expand the highway, combined with the increased traffic flow in the park resulting from this expansion, would create a potential impact on the integrity of park resources and the visitor experience. Traffic-induced noise accounts for most or all of the sound in key locations in the park. It is reasonable to assume the noise level in the park would increase with additional traffic, further diminishing the opportunity to enjoy the peaceful and solemn setting of the battlefield. This would pose a major long-term adverse impact on the visitor experience at Manassas National Battlefield Park. Therefore, it was determined that this is not a viable alternative, as required under the National Environmental Policy Act, and it was not subjected to further analysis.

ENVIRONMENTALLY PREFERABLE ALTERNATIVE

In accordance with NPS Director's Order #12, the National Park Service is required to identify the environmentally preferable alternative in all environmental documents. The environmentally preferable alternative is determined by applying the criteria suggested in the National Environmental Policy Act of 1969. The Council on Environmental Quality provides direction that the environmentally preferable alternative is the alternative that will promote the national environmental policy as expressed in Section 101 of the National Environmental Policy Act, which considers

- fulfilling the responsibilities of each generation as trustee of the environment for succeeding generations
- assuring for all generations safe, healthful, productive, and aesthetically and culturally pleasing surroundings
- attaining the widest range of beneficial uses of the environment without degradation, risk of health or safety, or other undesirable and unintended consequences
- preserving important historic, cultural, and natural aspects of our national heritage and maintaining, wherever possible, an environment that supports diversity and variety of individual choice
- achieving a balance between population and resource use that will permit high standards of living and a wide sharing of life's amenities
- enhancing the quality of renewable resources and approaching the maximum attainable recycling of nonrenewable resources

Alternative A (no-action) would not resolve traffic problems. Commuter and commercial traffic would remain detrimental to the visitor experience, cultural resources, and visitor safety at the park.

Implementation of alternative A would not fully achieve criteria 1 through 5 above. Alternative A does not completely fulfill the responsibilities to protect resources, nor does it assure a safe and culturally pleasing surrounding for succeeding generations (Criteria 1 and 2). Furthermore, alternative A does not attain the widest range of beneficial use without degradation and risk of health and safety (Criterion 3). For example, traffic levels adversely impact the battlefield resource, safety, and visitor use and experience. Alternative A fails to preserve and protect some of the cultural aspects and natural heritage of the park because of the traffic conditions (Criterion 4). Finally, alternative A does not fully achieve a balance between the resource and the surrounding population because commuter traffic through the park would continue to affect the battlefield cultural landscape and visitor experience (Criterion 5). Therefore, alternative A is not the environmentally preferred alternative.

The two action alternatives, B and C, are focused primarily on rehabilitation and preservation of the battlefield resources and the enhancement of the visitor experience, which is instrumental to the park's mission and purpose. Therefore, many of the actions under alternatives B and C have beneficial impacts on the cultural environment and visitor experience with some compromise on the natural or social environment.

As an example, the cultural landscape rehabilitation (forest thinning) under alternative B would have greater benefit to the battlefield landscape and visitor experience than alternative C because it would rehabilitate the landscape to its wartime appearance. The conversion of some forested areas to grasslands and/or scrubland in both alternatives B and C would be beneficial to grassland and scrubland species of plants and animals. More of this type of conversion would be done in B than C. However, to accomplish this; the park would clear more forested area, creating a

greater adverse impact on woodland vegetation and wildlife than alternative C.

Similarly, because it would remove the visitor center from Henry Hill, alternative C would have greater benefits than alternative B by rehabilitating the historic battlefield landscape. However, the relocation of the visitor center to the east side of the park would likely have greater adverse impacts to water resources.

When identifying the environmentally preferred alternative and assessing impacts to the natural, socioeconomic, and cultural environments, it is important to understand the primary purpose of the park as identified in the establishing legislation. The park's mission is "to preserve and protect the sites, structures, and objects associated with the Battles of First and Second Manassas and, through interpretation, foster an understanding and appreciation of their significance in the broader context of the American Civil War for the inspiration and benefit to the public."

The two action alternatives, alternatives B and C, fulfill the National Park Service's responsibility as a trustee for the environment for succeeding generations (Criterion 1) through resource protection and preservation. The proposed actions included in alternatives B and C would assure that all generations have safe, healthful, and aesthetically and culturally pleasing surroundings (Criterion 2) because of the visitor services enhancements, transportation improvements, battlefield scene rehabilitation, and historic structure preservation and rehabilitation. Under alternatives B and C, the National Park Service seeks to preserve the cultural and natural heritage aspects (Criterion 4) of the park. Both alternatives seek to restore a balance between the population and the resource (Criterion 5) by eliminating commuter and commercial traffic on the portions of U.S. Route 29 and VA Route 234 that run through the park to enhance cultural resources, the soundscape, and the visitor experience.

Overall, both alternatives promote national environmental policy as expressed in Section 101 of the National Environmental Policy Act.

Alternative B maximizes use of the Henry Hill visitor center and a separate Second Manassas visitor contact station. The battlefield landscape rehabilitation under alternative B would have a greater beneficial impact on the cultural landscape compared to the relocation of the visitor center off the battlefield under alternative C. Nevertheless, they also create adverse impacts on natural resources.

Both alternatives B and C propose creating a new access road and bridge into the park. However, alternative C also would develop a new visitor center and entry point on the east side of the park. This action would lead to greater impacts on natural resources than the actions identified in alternative B and could have a limited impact on land use patterns outside the park boundary.

Site-specific environmental analyses have not been completed to compare the degree of impacts of the landscape rehabilitation efforts and the visitor center. However, the natural resource impacts associated with the new visitor center under alternative C are anticipated to be greater than impacts resulting from the landscape rehabilitation. While both actions have adverse impacts, the full range of landscape rehabilitation activities under alternative B would also have some beneficial impacts because it would create greater habitat diversity in the park. Therefore, alternative B would best fulfill Criterion 3. Of the three alternatives, it would have the greatest benefits for the least amount of degradation to the environment.

Alternative B also maximizes the use of the Henry Hill visitor center and Second Manassas visitor contact station with fewer adverse impacts, which better fulfills Criteria 3 and 6. Alternative B proposes the continued use of both facilities. Under alternative C, the National Park Service would begin planning to remove the existing visitor center and build a new visitor center near Stone Bridge. Because alternative B would maximize the use of the Henry Hill visitor center and the Second Manassas visitor contact station, alternative B is the environmentally preferred alternative.

MITIGATION MEASURES / BEST MANAGEMENT PRACTICES

Congress charged the National Park Service with managing the lands under its stewardship “in such manner and by such means as will leave them unimpaired for the enjoyment of future generations” (NPS Organic Act, 16 *United States Code* 1). As a result, the National Park Service routinely evaluates and implements mitigation whenever conditions occur that could adversely affect the sustainability of national park system resources.

To ensure that implementation of the action alternatives protects unimpaired natural and cultural resources and the quality of the visitor experience, a consistent set of mitigation measures would be applied to actions proposed in this plan.

The National Park Service would prepare appropriate environmental reviews, such as those required by the National Environmental Policy Act, National Historic Preservation Act, and other relevant legislation, for the future actions described in the alternatives. As part of the environmental review, the National Park Service would avoid, minimize, and mitigate adverse impacts when practicable.

The implementation of a compliance-monitoring program could be considered as a way to stay within the parameters of National Environmental Policy Act and National Historic Preservation Act compliance documents, U.S. Army Corps of Engineers Section 404 permits, and other key regulations. The compliance-monitoring program would oversee these mitigation measures and would include reporting protocols.

The following mitigation measures and best management practices would be applied to avoid or minimize potential impacts from implementation of the alternatives. These measures would apply to all alternatives.

NATURAL RESOURCES

If site-specific actions proposed under this *General Management Plan* would have the potential to impact water resources, water quality, or other aspects of the natural environment, the National Park Service would subject the projects to site-specific planning and compliance. Additional environmental analysis and documentation would be needed to comply with the National Environmental Policy Act prior to implementation. Examples of actions where additional analysis would be needed might include, but would not be limited to, the U.S. Route 29 bridge removal and reconstruction in a different location, landscape scene rehabilitation, and other projects that may require land disturbance.

For construction or scene rehabilitation, the National Park Service contract administrators would specify that contractors use appropriate sediment and erosion control measures; minimize discharge to water bodies; regularly inspect construction equipment for leaks of petroleum and other chemicals; and provide for dust control, the addition of pollution control devices on construction equipment, and the use of low-polluting fuels. Where ground disturbance is anticipated, best management practices to control soil erosion and loss during construction activities would include minimization of disturbance areas, use of silt fences, revegetation, or other applicable practices to control drainage and erosion in accordance with an approved sediment and erosion control plan.

The National Park Service would maintain the riparian buffers along all streams to mitigate potential bank erosion and channel siltation from forest removal areas. Forest removal operations would incorporate Virginia Department of Forestry best management practices to avoid erosion problems, particularly where disturbance would occur on slopes. Riparian buffers as identified here may be maintained as wooded buffers or shrub and

grass buffers, depending on the significance of the historic views to be restored at specific sites within the park.

Upon the completion of the Battlefield Bypass and the transfer of the portions of U.S. Route 29 and VA Route 234 within the park to NPS jurisdiction, the addition of pollution control devices on maintenance equipment and the use of low polluting fuels would be called for in any future plans.

CULTURAL RESOURCES

The National Park Service would conduct site-specific planning and compliance for projects that have the potential for impacts on historic resources. The National Park Service would make efforts to avoid adverse impacts through use of the Secretary of the Interior's Standards for Archeology and Historic Preservation as well as screening and/or sensitive design that would be compatible with historic resources. If adverse impacts could not be avoided, the National Park Service would mitigate these impacts through a consultation process with all interested parties.

As appropriate, archeological surveys and/or monitoring would precede any construction. Limited information is available about existing archeological resources in the park. Known archeological resources would be avoided, and new facilities would be located in previously disturbed areas to the greatest extent possible. If National Register-eligible or -listed archeological resources could not be avoided, an appropriate mitigation strategy would be developed in consultation with the Virginia Department of Historic Resources (the state historic preservation office).

If previously undiscovered archeological resources were uncovered during construction, all work in the immediate vicinity of the discovery would be halted until the resources could be identified and documented and an appropriate mitigation strategy was developed in consultation with the state historic preservation office.

In the unlikely event that Native American human remains, funerary objects, sacred objects, or objects of cultural patrimony were discovered during construction, provisions outlined in the Native American Graves Protection and Repatriation Act (25 *United States Code* 3001) of 1990 would be followed. Other human remains would be treated in accordance with applicable local regulations.

Through best management practices, the National Park Service would rehabilitate the battlefield and cultural landscape to the greatest extent feasible. This process could entail the rehabilitation of important historic viewsheds through thinning and clearing of selected wooded areas, rehabilitation of historic forested areas through natural succession, and rehabilitation of agricultural fields by removing noncontributing and incompatible structures and incorporating new structures using compatible design.

SOCIOECONOMIC ENVIRONMENT

If site-specific actions proposed under this *General Management Plan* would have the potential to impact the social setting, economy, or other aspects of the socioeconomic environment, the National Park Service would subject the projects to site-specific planning and compliance. Additional environmental analysis and documentation to comply with the National Environmental Policy Act would be needed prior to implementation. Examples of actions where additional analysis would be needed would include, but not be limited to, the controlled access into the park.

VISITOR EXPERIENCE

The air quality non-attainment for ozone standards might offer exploratory partnering and/or funding opportunities with neighboring jurisdictions to lessen nearby vehicular traffic. This might reduce the noise and, thus, improve the park's soundscape for visitors.

FUTURE STUDIES AND IMPLEMENTATION PLANS NEEDED

Following completion and approval of a *General Management Plan* for Manassas National Battlefield Park, other, more detailed studies and plans would be needed for implementation of specific actions. As required, additional environmental compliance for conformance with the National Environmental Policy Act, National Historic Preservation Act, and other relevant laws and policies, and public involvement would be conducted. Those additional studies would include, but would not be limited to

- Environmental assessment for improvements to the Second Manassas visitor contact station.
- Controlled access study and environmental assessment for implementation of controlled access or gates on U.S. Route 29 and VA Route 234 and transportation improvements.
- Environmental assessment and assessment of effect for the removal and reconstruction of the U.S. Route 29 Bridge over Bull Run.
- Environmental assessment and assessment of effect for battlefield landscape and scene rehabilitation activities described in this plan, taking into consideration the cultural landscape reports performed for the Brawner Farm and Stuart's Hill areas.
- Section 106 compliance and assessment of effect for historic rehabilitation and preservation projects in this plan.
- Environmental assessment for a new visitor center and associated site improvements at the eastern boundary of the park near Stone Bridge, as proposed in alternative C.
- A cultural landscape report for the entire park is needed to enhance the park's existing partial cultural landscape inventories, and to make specific landscape treatment recommendations that would be reconciled with the battlefield landscape and scene rehabilitation activities proposed and described in this plan. Separate cultural landscape reports have been prepared for the Brawner Farm and Stuart's Hill areas, but none have been prepared for other parts of the park, or for the park as a whole. Implementation of such activities would call for additional compliance with the National Environmental Policy Act of 1969 and Section 106 of the National Historic Preservation Act of 1966.
- Visitation surveys to assess seasonal visitor use and anticipated staffing, interpretive, and transportation needs.
- A park-wide archeological survey is recommended to assist the National Park Service with the protection of archeological resources that are threatened by looting and park use. The park holds high research interest for historical archeology, and the likelihood of uncovering useful information is high. While high-quality data exists for some specific sites within the park, most of the park has not been surveyed.
- A park-wide resource stewardship plan, in accordance with updated park planning standards and Director's Order #2-1.
- A trails management plan that has been approved via the Section 106 compliance process is recommended to facilitate trails maintenance and planning. The purpose of the trails management plan is to outline the extensive, comprehensive trail network located within Manassas National Battlefield Park and to prescribe acceptable standards and uses compatible with preserving park resources and the environment. The document's purpose is to provide visitors with a trail system that will enable them to enjoy the battlefield, gain an appreciation of the significance of the two battles of Manassas, and have a sense of the environment present at the time of the battles.

SUMMARIES

NPS guidance in *Director's Order #12 and Handbook: Conservation Planning, Environmental Impact Analysis, and Decision Making* requires that environmental impact statements include summaries that will facilitate reader understanding.

- The important features of each alternative that were described in this chapter are summarized in Table 2-2. The relative costs for each alternative are included at the ends of each alternative's description.
- Table 2-3 addresses the Director's Order #12 requirement for a summary that presents "the impacts of each alternative, including a determination of potential improvement to park resources." The table includes both adverse and beneficial effects of the alternatives and identifies their intensity (negligible, minor, moderate, or major) and duration (short-term or long-term). More detailed information supporting Table 2-3 on the effects of the alternatives is provided in the "Environmental Consequences" chapter.

Table 2-2: Alternatives Summary

	Alternative A— No Action	Alternative B— The Two Battles of Manassas	Alternative C— The Defining Moments of the Battles
	Continue current management. Continue to implement the 1983 <i>General Management Plan</i> actions on a limited basis. Visitor experience remains compromised because of heavy commuter traffic.	A comprehensive understanding of each battle. Visitor experience is greatly enhanced with the elimination of commuter traffic.	A comprehensive understanding of the Civil War and the strategic importance of each battle within the context of the war. Visitor experience is greatly enhanced with the elimination of commuter traffic.
Concept	<ul style="list-style-type: none"> Current management practices would be continued; First Manassas would continue to receive greater interpretation and visitor attention because of the difficulty of traversing the portions of U.S. Route 29 and VA Route 234 in the park. However, the park is able to devote more time and facilities to both battles, especially with the more recent additions of the Brawner Farm and Stuart's Hill tracts. Orientation and visitor services for both battles would primarily be carried out from the Henry Hill visitor center. Visitors would gain an understanding of both battles by visiting the many sites associated with each battle. Only small components of the altered historic landscape would be rehabilitated. 	<ul style="list-style-type: none"> Both battles would be presented as distinct military events. The additions of the Brawner Farm and Stuart's Hill tracts provide a much greater opportunity to present a more comprehensive story of Second Manassas. Heavy volumes of commuter and commercial truck traffic would be eliminated from the park, greatly enhancing the visitor experience. Orientation and visitor services for both battles would be carried out from two locations. The Henry Hill visitor center would be the primary orientation point for the park as a whole, and would serve as the starting point for First Manassas tours. A Battle of Second Manassas visitor contact station at Stuart's Hill (and eventually at Brawner Farm) would interpret the Battle of Second Manassas and would serve as the starting point for Battle of Second Manassas tours. Visitors would gain a thorough understanding of both battles by visiting the many sites associated with each battle. Rehabilitation of the historic scene would be important to enhance visitor understanding of battle events and tactics. 	<ul style="list-style-type: none"> Visitors would gain an overall understanding of both battles by visiting the sites of "watershed" events. The importance of the Manassas battles would be presented as they relate to the overall context of the Civil War. Other stories, such as those pertaining to local families, including African American families and communities that were impacted by the Manassas battles, could also be interpreted in the park. The overall reasons and strategy for the Civil War and how the war ended would be presented in a Civil War museum; perhaps in partnership with other groups. Heavy volumes of commuter and commercial truck traffic would be eliminated from the park. This would greatly enhance the visitor experience. Orientation and visitor services for both battles would be carried out from a new visitor center, to be constructed near Stone Bridge. Important view corridors would be developed to enhance visitor understanding of battle events and tactics.

Table 2-2: Alternatives Summary

	Alternative A— No Action	Alternative B— The Two Battles of Manassas	Alternative C— The Defining Moments of the Battles
Management Prescriptions and Specific Actions	<ul style="list-style-type: none"> • Visitors would be oriented to the park and introduced to both battles at Henry Hill. Visitors would receive additional information on Second Manassas at a visitor contact station on Stuart's Hill. • The interpretive materials at the Henry Hill visitor center would still focus on the overall importance and strategy of First Manassas. The visitor contact station at Stuart's Hill would focus on Second Manassas. • Orientation and visitor services for both battles would primarily be carried out from the existing visitor center. • An automobile/bicycle tour route of several of the major battle sites would continue to exist, and would focus primarily on the major sites of Second Manassas. Visitors would tour First Manassas sites on foot via the Henry Hill Loop Trail. The First Manassas Hiking Trail would also be available for longer hikes. • Each site would present the specific battlefield engagement, and provide a parking area and interpretive displays. Most areas would have a short-loop hiking trail. However, interpretive programs would still be primarily concentrated at the visitor center. • Two separate, long-loop interpretive hiking trails (5 miles each) would start at the Henry Hill visitor center and would connect major engagement sites of each battle. These trails would provide an opportunity to learn more about the individual engagements and battles. • Bridle trails would continue to remain separate from the hiking trails. 	<ul style="list-style-type: none"> • Visitors would be oriented to the resources of First Manassas at the visitor center on Henry Hill and to the resources of Second Manassas at a visitor contact station at Stuart's Hill and, eventually, at Brawner Farm. • The interpretive materials at the Henry Hill visitor center would focus on the overall importance and strategy of the First Battle, and the Second Manassas visitor contact station primarily would interpret the Second Battle. • Orientation and visitor services for both battles would be carried out from two locations. • Separate automobile and bicycle tour routes would be developed for each battle. The sites would generally be visited in chronological order. Each site would include a parking area, interpretive displays, and a short-loop trail. Interpretive programs would be concentrated in these areas. • Each site would present the role of the conflict and other key engagements in the two battles. • Two separate, long-loop interpretive hiking trails (5 miles each) would connect major engagement sites of each battle, enhancing the visitor's understanding of the battles. • The First Manassas loop trail would start at the Henry Hill visitor center and connect the sites of the first battle. The Second Manassas loop trail would originate at Brawner Farm and would explore many of the important battle sites of the second battle. • Bridle trails would be separate from the interpretive loop hiking trails. 	<ul style="list-style-type: none"> • Visitors would be oriented to the park at the new visitor center, to be constructed near Stone Bridge. • The importance of the Manassas battles would be presented as they relate to the overall context of the Civil War. Other stories, including those pertaining to the local families and African American communities that were impacted by the Manassas battles, could also be interpreted in the park. • Orientation and visitor services for both battles would be carried out from a central location. • The overall reasons and strategy for the Civil War, and major Civil War topics such as tactics, weapons, and technological developments could be presented in a Civil War museum situated within or external to the park; perhaps in partnership with other groups. • From the visitor center, visitors would be directed to an automobile/bicycle tour route that would include sites from both battles. The sites could be visited in any order; formal tour routes would not exist. Each tour site would include a parking area, a more extensive level of interpretive displays, and a short-loop trail. Interpretive programs would be concentrated in these areas. • Each tour site would present the role of the conflict and other key engagements in the two battles. Expanded interpretation at key areas would discuss the overall story of the Civil War and the Battles of First and Second Manassas. It could also include archeology, social history, and other related topics.

Table 2-2: Alternatives Summary

	Alternative A— No Action	Alternative B— The Two Battles of Manassas	Alternative C— The Defining Moments of the Battles
Management Prescriptions and Specific Actions	<ul style="list-style-type: none"> Roads through the park would continue to remain open to heavy volumes of commuter and commercial truck traffic. Park management would explore other options to reduce or eliminate vehicular traffic. A new entrance road and parking area for Brawner Farm would be constructed off Pageland Lane. Access to the visitor contact station at Stuart's Hill would continue to be provided from Pageland Lane. All wartime structures, as well as other important structures and sites, such as the Henry House, L. Dogan House, Thornberry House, and Robinson House ruins, would be preserved. The current pattern of open fields and wooded areas would remain, and only small components of altered historic landscapes would be rehabilitated. The historic landscape would be explained through interpretive displays. Extensive scene restoration would not occur. Park offices would be retained in current locations. 	<ul style="list-style-type: none"> Roads through the park would be closed to heavy volumes of commuter and commercial truck traffic. A new entrance road and parking area for Brawner Farm would be constructed off Pageland Lane. The new access road and parking area for Stuart's Hill would be developed and the existing road would be rehabilitated. All wartime structures would be preserved. Brawner Farm and the Henry House, Thornberry House, and L. Dogan House would serve as important interpretive sites, and the outline of the Robinson House would be ghosted. Cultural landscape rehabilitation would reestablish major historic views and clear prominent battlefield sites. Park offices would be retained in current locations. The maintenance area could be expanded in the future, and other park operations could be increased by adaptively reusing existing park structures. Authorization would be sought from Congress for the park to expand its boundary to include four specific tracts of land: the Davis Tract, the Stonewall Memory Garden Tract, the Dunklin Monument area, and a three-quarter-acre area owned by the Civil War Preservation Trust. 	<ul style="list-style-type: none"> Separate interpretive long-loop hiking trails (5 miles each) would originate at the Stone Bridge and Brawner Farm, and would connect major engagement sites of each battle. The routes would follow existing trails and would enhance the visitor's understanding of the battles. Bridle trails would be separate from the interpretive loop hiking trails. Roads through the park would be closed to heavy volumes of commuter and commercial truck traffic. A new entrance road and parking area for Brawner Farm would be constructed off Pageland Lane. All wartime structures would be preserved. The Brawner, Henry, and L. Dogan houses and the Thornberry House would be retained as important sites and all structures would be upgraded to accommodate visitor use. Cultural landscape rehabilitation would re-create a few important view corridors, but extensive scene restoration would not occur. Park offices would be retained in current locations. The maintenance area could be expanded in the future, and other park operations could be increased by adaptively reusing existing park structures. Some office and/or administrative functions could be relocated to the visitor's center at Stone Bridge. Authorization would be sought from Congress for the park to expand its boundary to include four specific tracts of land: the Davis Tract, the Stonewall Memory Garden Tract, the Dunklin Monument area, and a three-quarter-acre area owned by the Civil War Preservation Trust.

Table 2-3: Summary of Impacts of Implementing the Alternatives

Impact Topics	Alternative A— No Action	Alternative B— The Two Battles of Manassas	Alternative C— The Defining Moments of the Battles
Natural Environment Air Quality	<ul style="list-style-type: none"> Negligible long-term adverse impacts on air quality would persist. Cumulative impact on air quality would be moderate short-term and adverse. 	<ul style="list-style-type: none"> Negligible to minor short-term adverse impacts to air quality would occur during construction activities and landscape rehabilitation. A negligible long-term beneficial impact to air quality within the park would occur. A minor long-term adverse impact on air quality would occur outside the park from the redistribution of traffic. Cumulative impacts on air quality would be adverse and minor. 	<ul style="list-style-type: none"> Negligible to minor short-term adverse impacts to air quality would occur during construction activities and landscape rehabilitation. A negligible long-term beneficial impact to air quality within the park would occur. A minor long-term adverse impact on air quality would occur outside the park from the redistribution of traffic. Cumulative impacts on air quality would be adverse and minor.
Soundscape	<ul style="list-style-type: none"> A moderate long-term adverse impact on the park's soundscape would persist. A moderate long-term adverse cumulative impact would occur. 	<ul style="list-style-type: none"> A negligible long-term adverse impact on the soundscape would occur from the new contact station and other small projects. Minor short-term adverse impacts on the soundscape would result from forest removal activities. Moderate long-term beneficial impacts would result from traffic and transportation changes. No long-term cumulative impacts on noise would occur. 	<ul style="list-style-type: none"> A minor to moderate long-term beneficial impact on the soundscape would occur from the relocation of the visitor center and the redirection of traffic. Negligible to minor short-term adverse impacts on the soundscape would be associated with construction. No long-term cumulative impacts on noise would occur.
Vegetation and Wildlife	<ul style="list-style-type: none"> Negligible long-term adverse impacts on vegetation and wildlife would occur. Moderate long-term adverse cumulative impacts would occur. 	<ul style="list-style-type: none"> The impact on vegetation and wildlife would be long-term adverse and minor because of the potential removal of vegetation to construct the new access road at Stuart's Hill and improve parking. There would be beneficial impacts to vegetation at Stuart's Hill from rehabilitation of the existing roadbed. The reduction of traffic and travel speeds would reduce the number of animals killed by vehicles, which would be a minor long-term beneficial impact. The long-term adverse impacts associated with the new access road and bridge would be moderate. Potential long-term adverse impacts to wildlife from diversion of traffic and changes in traffic levels on other roads outside the park would likely range from negligible to minor. The reduction of woodlands would have a minor long-term adverse impact on forest species and a minor long-term beneficial impact on species that prefer grasslands and edge habitats. 	<ul style="list-style-type: none"> The long-term adverse impacts associated with the new visitor center, access road, and bridge would be moderate. The reduction of traffic and travel speeds would reduce the number of animals killed by vehicles, which would be a minor long-term beneficial impact. Potential long-term adverse impacts to wildlife from diversion of traffic and changes in traffic levels on other roads outside the park would likely range from negligible to minor. The impact on vegetation and wildlife at Stuart's Hill would be long-term adverse and minor because of the potential removal of vegetation to construct the road and improve parking. There would be beneficial impacts to vegetation from rehabilitation of the existing roadbed. The reduction of woodlands would have a negligible to minor long-term adverse impact on forest species and a negligible to minor long-term beneficial impact on species that prefer grasslands and edge habitats.

Table 2-3: Summary of Impacts of Implementing the Alternatives

Impact Topics	Alternative A— No Action	Alternative B— The Two Battles of Manassas	Alternative C— The Defining Moments of the Battles
		<ul style="list-style-type: none"> Collectively, the cumulative impact would be anticipated to be minor to moderate long-term and adverse. 	<ul style="list-style-type: none"> Collectively, the cumulative impact would be anticipated to be minor to moderate long-term and adverse.
Threatened, Endangered, and Rare Species and Natural Communities	<ul style="list-style-type: none"> No effect on threatened, endangered, or rare species or their habitats would occur. No cumulative impact would occur. 	<ul style="list-style-type: none"> Forest removal to rehabilitate the historic landscape may affect but is not likely to adversely affect species that prefer open fields or edge habitat. Woodland species may be affected, but are not likely to be adversely affected. Proposed actions would have no effect on threatened or endangered species and may affect but are not likely to adversely affect their habitats, because no supporting habitats would be disturbed. The cumulative impact would affect but not likely adversely affect threatened and endangered species. 	<ul style="list-style-type: none"> Forest removal to create view corridors may affect but is not likely to adversely affect species that prefer open fields or edge habitat. Woodland species may be affected, but are not likely to be adversely affected. Proposed actions may affect but are not likely to adversely affect threatened or endangered species or their habitats because no supporting habitats would be disturbed. The cumulative impact would affect but not likely adversely affect threatened and endangered species.
Water Resources (Water Bodies, Water Quality, Wetlands, and Floodplains)	<ul style="list-style-type: none"> Negligible long-term adverse impacts on water resources would occur. The cumulative adverse impact would be long-term and moderate. 	<ul style="list-style-type: none"> The new Stuart's Hill access road would have short-term negligible adverse impacts. Transportation-related improvements would have a long-term beneficial impact by reducing the volume of polluted runoff that would reach water resources in the park. The removal of the U.S. Route 29 bridge would likely have a minor long-term beneficial impact on the floodplain and stream and negligible short-term adverse impacts during demolition. The new bridge over Bull Run and its associated approach roads would have moderate long-term adverse impacts on the floodplain, stream and, potentially, wetlands. The cumulative adverse impact would be long-term and moderate. 	<ul style="list-style-type: none"> Transportation-related improvements would have a long-term beneficial impact by reducing the volume of polluted runoff that would reach water resources in the park. The removal of the U.S. Route 29 bridge would likely have a minor long-term beneficial impact on the floodplain and stream and negligible short-term adverse impacts during demolition. The new visitor center, new bridge over Bull Run, and its associated approach roads would have moderate long-term adverse impacts on the floodplain, stream and, potentially, wetlands. The new Stuart's Hill access road would have short-term negligible adverse impacts. The cumulative adverse impact would be long-term and moderate.

Table 2-3: Summary of Impacts of Implementing the Alternatives

Impact Topics	Alternative A— No Action	Alternative B— The Two Battles of Manassas	Alternative C— The Defining Moments of the Battles
Cultural Resources	<ul style="list-style-type: none"> Few if any adverse effects to archeological resources would occur. If significant archeological resources could not be avoided during construction, impacts would be adverse. There would be no adverse effects associated with the preservation and rehabilitation of historic structures and cultural landscapes or construction of parking areas, loop trails, and interpretive displays. Moving artifacts and archives to a facility outside the park would cause a minor adverse long-term impact. However, there would be minor to moderate beneficial impacts associated with providing more space for adequate curation, storage, and research. The cumulative impact to museum collections would be beneficial long-term and of minor to moderate intensity. Any adverse cumulative impacts would be a small component of that cumulative impact. 	<ul style="list-style-type: none"> If archeological resources could not be avoided during construction, impacts would be adverse. No adverse effect would be anticipated as a result of construction for a Second Manassas visitor contact station. There would be no adverse effects associated with preservation and rehabilitation of historic structures and cultural landscapes or construction of small parking areas, loop trails, and interpretive displays. Restricting access to U.S. Route 29 and VA Route 234 would have a beneficial impact on historic structures and cultural landscapes. Removing the U.S. Route 29 bridge over Bull Run would have a beneficial effect on the cultural landscape. Moving artifacts and archives to a facility outside the park would cause a minor adverse long-term impact. However, there would be minor to moderate beneficial impacts associated with providing more space for adequate curation, storage, and research. The cumulative impact to museum collections would be beneficial long-term and of minor to moderate intensity. Any adverse cumulative impacts would be a small component of that cumulative impact. 	<ul style="list-style-type: none"> If archeological resources could not be avoided during construction, impacts would be adverse. No adverse effect would be anticipated as a result of construction for a new visitor center, access road, and bridge. There would be no adverse effects associated with preservation and rehabilitation of historic structures and cultural landscapes or construction of small parking areas, loop trails, and interpretive displays. Restricting access to U.S. Route 29 and VA Route 234 would have a beneficial impact on historic structures and cultural landscapes. Removing the U.S. Route 29 bridge over Bull Run would have a beneficial effect on the cultural landscape. Museum collections would continue to be adequately stored and protected. Moving artifacts and archives to a facility outside the park would cause a minor adverse long-term impact. However, there would be minor to moderate beneficial impacts associated with providing more space for adequate curation, storage, and research. The cumulative impact to museum collections would be beneficial long-term and of minor to moderate intensity. Any adverse cumulative impacts would be a small component of that cumulative impact.
Transportation/Traffic	<ul style="list-style-type: none"> Commuter and commercial traffic would continue to have major long-term adverse impacts on transportation within the park, causing excessive delays and potential safety risks for motorists. No cumulative impact would occur. 	<ul style="list-style-type: none"> The controlled access measures would have a major long-term beneficial impact on transportation in the park because of the reduction in commuter and truck traffic in the park. A major long-term beneficial cumulative impact would occur. 	<ul style="list-style-type: none"> The controlled access measures would have a major long-term beneficial impact on transportation in the park because of the reduction in commuter and truck traffic in the park. A major long-term beneficial cumulative impact would occur.

Table 2-3: Summary of Impacts of Implementing the Alternatives

Impact Topics	Alternative A— No Action	Alternative B— The Two Battles of Manassas	Alternative C— The Defining Moments of the Battles
Socioeconomic Environment	<ul style="list-style-type: none"> Negligible impacts to the existing socioeconomic environment would occur. Negligible cumulative impact would occur. 	<ul style="list-style-type: none"> Negligible long-term adverse impacts would occur for residents requiring access through the park. Negligible long-term adverse impacts to emergency response would occur. A few businesses could experience minor adverse long-term impacts. Minor adverse cumulative impacts would occur. 	<ul style="list-style-type: none"> Negligible long-term adverse impacts would occur for residents requiring access through the park. Negligible long-term adverse impacts to emergency response would occur. A few businesses could experience minor adverse long-term impacts. Minor adverse cumulative impacts would occur.
Recreation	<ul style="list-style-type: none"> No impacts to the existing recreation conditions would occur. No cumulative impact would occur. 	<ul style="list-style-type: none"> Minor long-term beneficial impacts would result from the enhanced recreational opportunities. A minor beneficial cumulative impact would occur. 	<ul style="list-style-type: none"> Minor long-term beneficial impacts would result from the enhanced recreational opportunities. A minor beneficial cumulative impact would occur.
Visitor Experience	<ul style="list-style-type: none"> Major long-term adverse impacts would occur, primarily because of conflicts between park visitors and non-park traffic. Cumulative impact would be moderate long-term and adverse. 	<ul style="list-style-type: none"> The elimination of commuter and truck traffic, removal of the existing U.S. Route 29 bridge, battlefield scene rehabilitation, and preservation and maintenance of historic structures would have a major long-term beneficial impact on the visitor experience. A moderate beneficial cumulative impact would occur. 	<ul style="list-style-type: none"> The elimination of commuter and truck traffic, removal of the existing U.S. Route 29 bridge, battlefield scene rehabilitation, and preservation and maintenance of historic structures would have a major long-term beneficial impact on the visitor experience. A moderate beneficial cumulative impact would occur.
Park Operations and Maintenance	<ul style="list-style-type: none"> Minor long-term adverse impacts would occur. Negligible cumulative impact would occur. 	<ul style="list-style-type: none"> Minor and moderate long-term adverse impacts would occur because of changed operations associated with a visitor contact station for Second Manassas, new interpretive programs, change in ownership of the roads, and controlled access into the park. Negligible cumulative impact would occur. 	<ul style="list-style-type: none"> Minor and moderate long-term adverse impacts would occur because of changed operations associated with the new visitor center, new interpretive programs, change in ownership of the roads, and controlled access into the park. Negligible cumulative impact would occur.