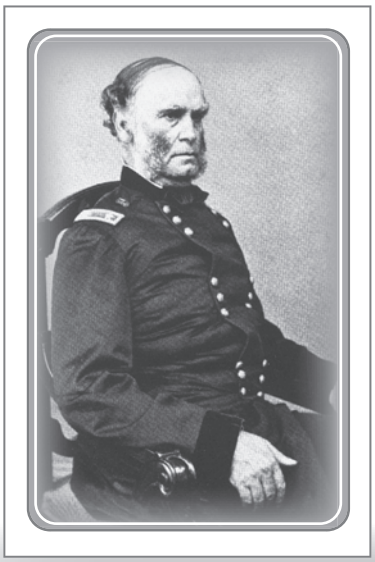
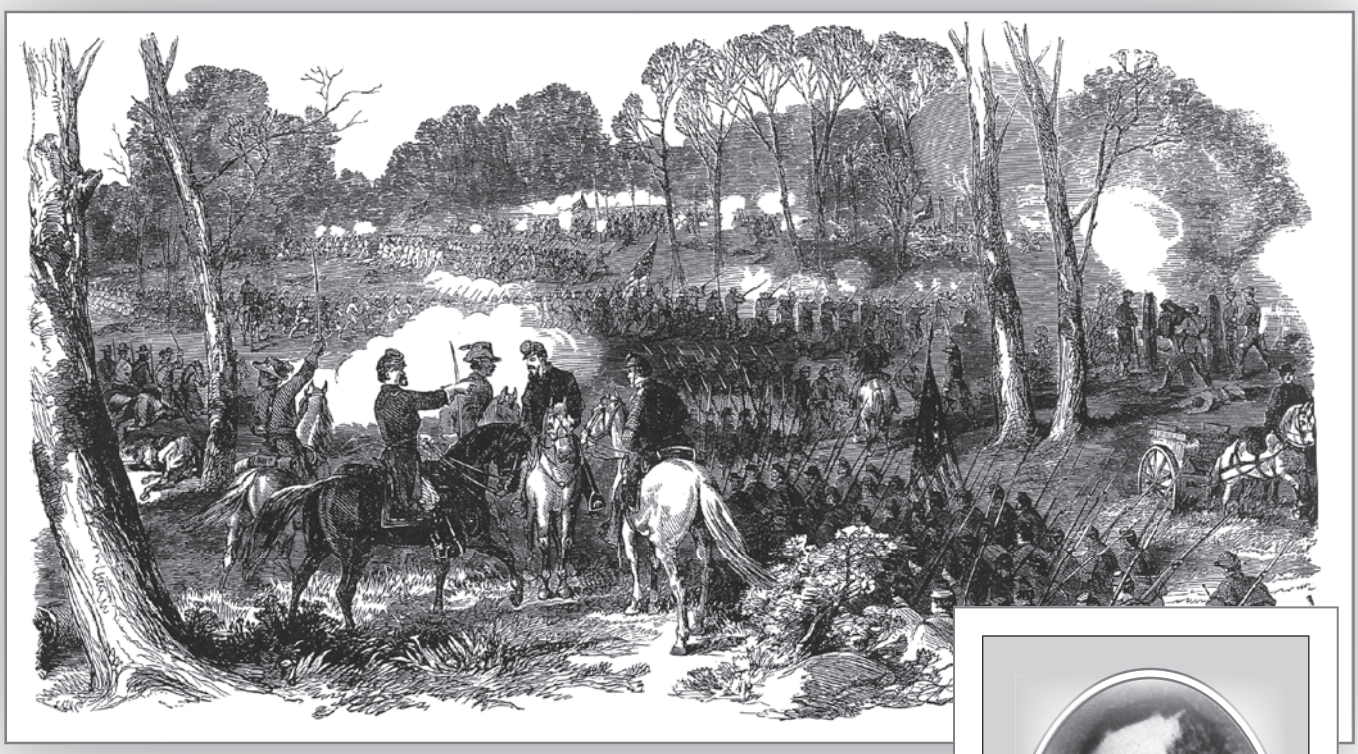
National Park Service
U.S. Department of the Interior

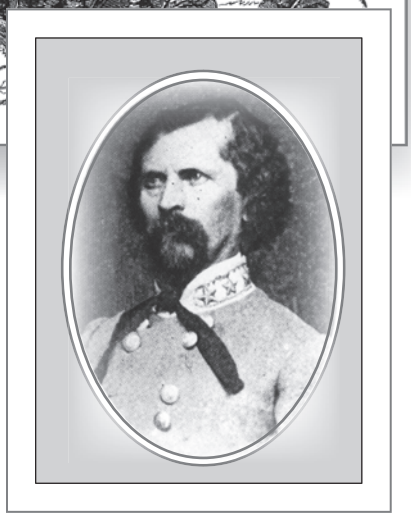
Pea Ridge National Military Park • Arkansas



Draft
General Management Plan
Environmental Impact Statement

PEA RIDGE NATIONAL MILITARY PARK





Draft
General Management Plan
Environmental Impact Statement
Pea Ridge National Military Park • Arkansas

Pea Ridge National Military Park is near the city of Pea Ridge, Arkansas, and 14 miles northeast of Bentonville, Arkansas. In March of 1862, the Union Army of the Southwest led by Brig. Gen. Samuel Curtis defeated the Confederate Army of the West under the command of Maj. Gen. Earl Van Dorn in a bloody two-day battle at Pea Ridge in the remote northwest corner of Arkansas. This decisive victory permanently turned the tide of the Civil War west of the Mississippi, ensured that Missouri would remain in the Union, and freed Union forces for the campaign to take control of the lower Mississippi River.

Pea Ridge National Military Park was established on July 20, 1956, to commemorate the Battle of Pea Ridge and preserve the site of the battle, the largest Civil War engagement west of the Mississippi River. This 4,300-acre park encompasses nearly 90% of the actual battlefield. Its numerous resources include archeological sites, historic sites, structures, (site-specific) collections, and cultural landscape features associated with the battle and the agrarian community once found at Pea Ridge.

The purpose of this *Draft General Management Plan/Environmental Impact Statement* is to outline the specific resource conditions and visitor experiences desirable for the park and to propose alternate management strategies for achieving these goals. The *Draft General Management Plan/Environmental Impact Statement* will provide a framework to guide park management decision-making for the next 15-20 years. The plan presents four management alternatives for resource protection and visitor experience of the park. Three action alternatives are compared with alternative 1: the no-action alternative, or continuation of current management.

- **Alternative 2 – Immersed in the Field of Battle through Direct Experiences.** Under this alternative, visitors would experience a connection to the history of the Battle of Pea Ridge through evocative interpretive programs as they follow the footsteps of the combatants into key sites in the historic battlefield. Park management would retain and enhance the historic character of extensive areas of the battlefield landscape.

- **Alternative 3 – Window into the Past through Interpretation.** Under this alternative park visitors would make personal connections to the history of the Battle of Pea Ridge through educational and informative interpretive programs at many locations from which they could view key areas of the historic battlefield. Resource management would rehabilitate the natural landscape features that shaped the cultural landscape of the Pea Ridge battlefield.

- **Alternative 4 – Exploration and Discovery (Preferred Alternative).** Under this alternative, visitors could choose from the widest range of experiences. Visitors could immerse themselves in the historic battlefield, focus on gaining an appreciation of the history of the battle, or mix elements of both experiences. Park management would retain and enhance a substantial portion of the historic character of the battlefield landscape.

Public participation has been integral to this planning process. You may send comments to the following address:

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P.O. Box 700
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For further information about this document, please contact Superintendent Scott at 479-451-8122, extension 224.

SUMMARY

PURPOSE OF THE PLAN

The purposes of this general management plan (GMP) are to define resource conditions and visitor experiences to be achieved in Pea Ridge National Military Park (NMP). The GMP will provide a framework to guide Pea Ridge NMP managers in making decisions on resource protection and visitor experiences, management of visitor use, and types of facilities necessary to fulfill the purposes for which the park was established.

Patterns and types of visitor use, as well as an understanding of park resources and values have changed since a comprehensive management plan was prepared in 1964. These changes have implications for the decisions park management must make.

ISSUES AND CONCERNS

As a part of this planning process, interested parties have offered ideas and commented on issues, concerns, or desires for the future condition of Pea Ridge. Issues requiring management action include:

- Visitor use is evolving, and the demand for additional recreational opportunities needs to be addressed in the context of the park's purpose.
- There are two highways within the park boundary. Increased traffic on U.S. Highway 62 potentially would affect the park's aesthetic values and visitor safety. Arkansas Highway 72 (AR 72) bisects the Leetown Battlefield, splitting it into two sections. Some parties believe that AR 72 should be removed; other parties believe that additional access should be provided from AR 72.
- There is only minimal visitor access to the Union earthworks.
- Some parties felt that the National Park Service should establish trails throughout the battlefield to allow visitors to explore and better understand the setting.
- The park boundary needs reevaluation. Portions of the battleground deemed significant were not included when the park was established.
- During the 1990s the population of the Bentonville-Rogers-Pea Ridge area increased dramatically. Regional population growth has the potential to increase visitation, which could affect the park's cultural and natural resources. Future development adjacent to the park could alter the landscape to a point where it compromises the historical context of the battlefield.

ALTERNATIVES

The four alternatives for park management are (1) "No Action" (Continuation of Existing Management); (2) "Immersed in the Field of Battle through Direct Experience," (3) "Window into the Past through Interpretation," and (4) "Exploration and Discovery" (the Preferred Alternative). These alternatives describe overall management direction, including alternate ways in which developed management zones would be applied to the park.

Management Zones

Management zones prescribe specific management strategies for different areas in the park in order to achieve a combination of desired resource conditions and visitor experiences. The application of

these management zones varies under each action alternative. The following five management zones were developed for Pea Ridge National Military Park.

Arkansas Highlands. Pea Ridge National Military Park is in the physiographic zone known as the Ozark Plateau, a vast upland area that includes most of southwestern Missouri and northwestern Arkansas. Rolling tablelands, rocky highlands, narrow valleys, and deep ravines define this region. The park's hardwood forests, small prairies, and the timbered slopes and hollows of Elkhorn Mountain, characteristic features of the Ozark Plateau, provide reminders of the plateau's natural landscape and its influence on the Battle of Pea Ridge. Management in the Arkansas Highlands zone would work to preserve these characteristics, enabling visitors to familiarize themselves with the natural environment of 1862 Arkansas and gain an appreciation of the experiences of the soldiers who campaigned and fought at Pea Ridge.

Management in this area would seek to reestablish the natural landscape features of the Ozark Plateau, the physiographic region that helps define the cultural landscape of Pea Ridge battlefield. Natural prairies would be maintained or restored. Woodlands would be preserved or allowed to reestablish in areas cleared for agriculture. Cultural landscape features such as historic roads and traces would be rehabilitated to provide access within this area.

Pea Ridge Battleground. Management in this zone would focus on retaining and enhancing the historic character of the landscape that defined the 1862 Pea Ridge battlefield. Changes in land uses, transportation systems, and the relationship between prairie, fields, and forests, combine to obscure the historic landscape and inhibit visitor understanding of the largest Civil War battle west of the Mississippi River. Maintaining or restoring open fields, historic circulation patterns, fencing, historic woodlands, and other landscape features would enhance the integrity of the historic battlefield landscape.

The battlefield landscape would be returned to its 1862 appearance to as great a degree as feasible, consistent with NPS policy on historic landscapes. The rural, agrarian setting for the Battle of Pea Ridge featured agricultural fields, orchards, open prairies, extensive wooded areas, and a modest network of roads and trails. These landscape characteristics helped define the way the battle unfolded; their representation is essential to visitor understanding of this pivotal battle.

Sensitive Resource. This area would be dedicated to protecting the remnants of the Union trenches above Little Sugar Creek. These remnants are susceptible to the loss of their remaining physical integrity due to erosion, trampling, and deterioration from vegetative growth.

These resources would be preserved in order to minimize or prevent continued deterioration of these critical resources. Restoration of the trenches could occur if sufficient documentation was available to guide such an undertaking. Archeological investigations could provide additional data to guide resource restoration.

Education and Interpretation. Battle of Pea Ridge was a decisive turning point in the Civil War west of the Mississippi. The Union victory at Pea Ridge effectively dashed Confederate hopes for establishing control over the state of Missouri. By doing so, the battle inflamed a brutal

guerilla war that inflicted misery on both soldiers and civilians in Missouri and Arkansas. However, the battle also inspired the erection of one of the first Civil War memorials created jointly by Union and Confederate veterans of Pea Ridge. Visitors in this area would have opportunities to learn about and gain an appreciation of the critical features of this fascinating and significant battle and the efforts of Pea Ridge veterans to commemorate the Battle of Pea Ridge and their comrades who were killed in combat.

Significant resources in this area could include artifacts related to the battle and elements of the park's battlefield landscape. These resources would be managed to maintain their historical integrity and ability to support the interpretive and educational programs.

Visitor Orientation and Administration. Management in this area would focus on providing visitors with overall orientation to the park and providing space for park administration, maintenance, and emergency services.

Significant cultural resources in this area would be limited to battle-related artifacts.

Alternative 1: No Action Alternative

This alternative would continue the existing management direction for Pea Ridge National Military Park. Primary battlefield resources would be preserved. Limited rehabilitation or restoration of the battlefield landscape would occur as funds permitted. Interpretive media would remain essentially the same, although some minor modifications could be expected.

Alternative 2: Immersed in the Field of Battle through Direct Experiences

This alternative would offer visitors a connection to the history of the Battle of Pea Ridge through a combination of evocative interpretive programs and access to key areas of the historic battlefield. The interpretive program would focus on dramatic first-hand accounts of the battle. Visitors would have the opportunity to reflect on these stories as they venture into the sites that were critical to the outcome of the battle.

Under this alternative, approximately 40% of the park would be included in the Pea Ridge Battleground Zone. Resources in this area would be managed in such a way as to retain and enhance the historic character of the Pea Ridge battlefield. The Union trenches would be included in the Sensitive Resource Zone, in order to provide the highest level protection for these critical resources. The veterans' memorials west of Elkhorn Tavern would be included in the Battlefield Memorial zone. The visitor center and administrative and maintenance facilities would be included in the Orientation and Administration zone. The southern portion of the tour road and a segment of the reoriented tour road on Ford Road would be included in the Education and Interpretation zone. The remainder of the park would be included in the Arkansas Highlands zone.

The tour road would provide access to key battle areas. To encourage visitors to immerse themselves in various locations and types of physical terrain on the battlefield, the tour road between the Elkhorn Tavern and the visitor center would remain one way.

At various access points interpretive media (wayside exhibits, maps, and trailhead orientation exhibits) would enhance the immersion experience. The Elkhorn Mountain portion of the tour road would be closed and replaced by a new route following the historic Ford Road. New access to the east overlook would be developed from Ford Road. AR 72 would be rerouted outside the park boundary in order to enhance the historic character of the landscape.

Alternative 3: Window into the Past through Interpretation

This alternative would offer visitors opportunities to make connections to the history of the Battle of Pea Ridge through educational interpretive experiences at many locations on the battlefield. Natural and cultural resource conditions as viewed from the edge of key battle areas would provide visitors with an impression of the open space and woodlands at the time of the battle.

Under this alternative, most of the park would be managed as Arkansas Highlands. This level of resource management would give visitors a general sense of the 1862 battlefield landscape as they view it from the periphery. The entire length of the tour road and the veterans' memorials west of Elkhorn Tavern would be zoned as Intensive Interpretation. As in alternative 2, the Union trenches would be included in the Sensitive Resource zone in order to provide the highest level of protection to these critical resources. Visitor orientation and contextual interpretation would occur at the visitor center. There would be no Pea Ridge Battleground zone in this alternative.

Visitor access to the park would occur via the tour road and a trail network. The Elkhorn Mountain portion of the tour road would be closed and replaced by the new route following the historic Ford Road.

The tour road would take visitors along the edge of key battle areas. These would include the western edge of the Leetown Battlefield, the north edge of Welfley's Knoll and adjacent agricultural fields via the Ford Road to the vicinity of Elkhorn Tavern, and then return to the visitor center on a new route east of Telegraph Road. New access to the east overlook would be developed from Ford Road. AR 72 would be relocated outside the park. The roadway remaining inside the park boundary but would be used for internal park access.

The interpretive approach would provide factual information about the battle, enabling visitors to understand and appreciate the political and social factors that characterized the Civil War in the West, strategic considerations that led up to the battle, the impact of the decisions and actions of individual leaders, and the historical consequences of the Pea Ridge Campaign. Interpretation would occur at the visitor center, along the tour road, and on a number of trails. Visitors would encounter frequent interpretive opportunities through a variety of media including outdoor exhibit kiosks, wayside exhibits, audio programs, maps, trails, and a battlefield overlook. Opportunities to look into the battlefield from the tour road would supplement the interpretive experiences.

Alternative 4: Exploration and Discovery (Preferred Alternative)

This alternative would provide visitors with the opportunity to choose from the widest range of experiences. Visitors

would have opportunities to immerse themselves in park resources associated with key battle areas and gain an understanding of the history of the Pea Ridge battle. Visitors would have many choices in the type, intensity, and duration of their experiences, guided by a variety of interpretive programs and media.

Under this alternative, about 25% of the park would be included in the Pea Ridge Battleground zone, in order to enhance the historic appearance of the battlefield landscape. The Union trenches would be included in the Sensitive Resource zone, in order to provide the highest level of protection for these critical resources. The tour road and the veterans' memorials west of Elkhorn Tavern would be included in the Education and Interpretation zone. Visitor orientation and contextual interpretation would occur in the visitor center. The visitor center and administrative and maintenance facilities would be located in the Orientation and Administration zone. The remainder of the park would be included in the Arkansas Highlands zone.

The tour road would provide access to the center of the Leetown Battlefield, follow the present route over Elkhorn Mountain; and return to the new visitor center in the southwestern corner of the park. The Telegraph Road would be restored to its historic condition. The historic Ford Road would be rehabilitated as a trail to provide additional access to key battle areas. AR 72 would be rerouted outside the park boundary in order to enhance the historic character of the landscape.

Visitors would have opportunities to immerse themselves in key battle areas in the Leetown and Elkhorn Tavern battlefields, including Welfley's Knoll. In those areas, visitors would have contact with natural and cultural resources in conditions representing the 1862 battlefield. Other areas featuring interpretive media would provide views of the battlefield that convey the open space and woodlands present at the time of the battle.

Visitors would have opportunities for interpretive experiences with a variety of media including outdoor exhibit kiosks, wayside exhibits, audio programs, maps, trails, battlefield overlooks. Visitors would be provided with a mix of evocative experiences and informative, educational programs.

Actions Common to All Action Alternatives

The following would occur under all action alternatives:

- The park visitor center and administrative and maintenance facilities would be relocated to an area in the southwest corner of the park as a result of widening U.S. 62. The new visitor facility would include increased museum space for exhibits, interpretive programs, archives and collections
- The National Park Service will continue consultation with Native American cultures traditionally associated with the park and its resources. The Park Service will carefully consider the effects of actions on natural and cultural features that have traditional significance for these cultures.
- Access to the Union trenches from U.S. 62 would be developed. The current parking area along Little Sugar Creek and the trail to the trenches would be closed.
- Additions to the park's trail system would be developed along the routes of historic trails and road traces wherever possible. The 1962 historical base map for Pea Ridge Military Park

identifies the trails and traces that existed at the time of the battle. This data would guide park staff in planning modifications and additions to the trail network.
- Future park management on issues relating to landscape treatment, transportation development, cooperative planning, and interpretive and educational programs, would incorporate the concepts outlined in "Holding the High Ground: Principles and Strategies for Managing and Interpreting Civil War Battlefield Landscapes." This would include ongoing consultation and cooperation with the Arkansas State Historic Preservation Officer and the Advisory Council on Historic Preservation.

Boundary Adjustments

The General Authorities Act of 1970 directs the National Park Service to identify potential boundary adjustments in general management plans. The criteria used to evaluate any proposed changes to the existing boundaries of individual park units include
- an analysis of whether the existing boundary provides for the adequate protection and preservation of the natural, historic, cultural, scenic, and recreational resources integral to the unit
- an evaluation of each parcel proposed for addition or deletion based on this analysis
- an assessment of the impact of potential boundary adjustments taking into consideration the factors listed above as well as the effect of the adjustments on the local communities and surrounding areas

The authorized boundary of Pea Ridge National Military Park encompasses 4,300 acres. While virtually all of the actual combat areas associated with the Battle of Pea Ridge are within park boundaries, some areas significant to the battle lie outside the park boundary. These lands include the following:

Area A: The Little Sugar Creek entrenchments. This 150-acre area contains remnants of the entrenchments built by the Union Army to fortify the bluffs above Little Sugar Creek against the advancing Confederate army. These nationally significant resources are remnants of what were likely the first earthworks dug in the Trans-Mississippi theatre of operations and also are the only remaining structural elements relating to the battle. The presence of the Union trenches above Little Sugar Creek determined to a large degree the evolution of the combat at Pea Ridge.

Area B: General McColloch's advance on Leetown. This 50-acre area contains nationally significant resources directly related to the purpose of the park. This was the site of the some of the initial combat north of Leetown on March 7. The area also includes the site of the death of Confederate Brig. General Ben McColloch. His death had a profound effect on the outcome of the Battle of Leetown.

Area C: The Telegraph Road. This 2-mile segment of the Telegraph Road is part of a transportation resource that was essential to the strategic objectives of both armies operating in the Trans-Mississippi theatre. Control and use of the Telegraph Road was a key factor in the Pea Ridge campaign.

Area D: Cross Timber Hollow retreat route. This 35-acre site is a ¼-mile-wide corridor along the Cross Timber Hollow

and Telegraph Road to its junction with Lime Kiln Road. Part of the Confederate Army of the West advanced and retreated on this route.

Area E: Behind the Union Army Lines. This approximately 200-acre parcel of land is south of the exiting park boundary, east of Arkansas Highway 72, and north of U.S. Highway 62. Acquisition of this land would improve operation and management of the park by adjusting the boundary to correspond to major regional access roads and thereby enhance visitor access to and enjoyment of the park. This area also contains some resources associated with the Battle of Pea Ridge, including part of the Union Army's supply area and historic road traces used by Union troops as they maneuvered to confront the advancing Confederate forces.

It is recommended that this area be included within the boundary of Pea Ridge NMP. However it is not recommended that the National Park Service would acquire fee simple ownership of these lands at the present time. Acquisition of less than fee simple real property rights, such as easements or rights of way, would provide the National Park Service with the specific interests that would enable it to protect resource values and improve overall park administration and management. Fee simple acquisition of these or other lands for Pea Ridge National Military Park would require congressional authorization.

Environmental Consequences

The National Environmental Policy Act (NEPA) requires environmental documents to disclose the environmental impacts of all reasonable alternatives and any environmental effects that cannot be avoided should the preferred alternative be implemented. Table 4 summarizes the impacts of the alternatives, including alternative 1, on cultural resources, natural resources, visitor experience, park operations, and access and circulation.

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Purpose of and Need for the General Management Plan

INTRODUCTION

PURPOSE OF THE PLAN

General management planning constitutes the first phase of planning and decision making for units of the national park system. It focuses on why the park was established and what resource conditions and visitor experiences should be achieved and maintained over time. Decisions about site-specific actions will be deferred to more detailed planning efforts.

The general management plan (GMP) will direct the management of Pea Ridge National Military Park (NMP) for the next 15–20 years. In addition to defining future resource conditions and visitor experiences, the plan will guide park managers when making decisions about how to best protect park resources, how to provide a meaningful visitor experience, how to manage visitor use, and what kinds of facilities are necessary to fulfill the purposes for which the park was established

The GMP is the National Park Service's commitment to the public on how the park will be managed and used. It confirms the park's purpose and significance of the park and determines the best balance of resource protection and visitor experiences.

The balance of resource protection and visitor use is based on

- the park's purpose and significance
- public concerns and expectations
- the park's cultural and natural resources
- impacts on cultural, natural, and socioeconomic conditions and visitor experience
- long-term economic considerations and costs

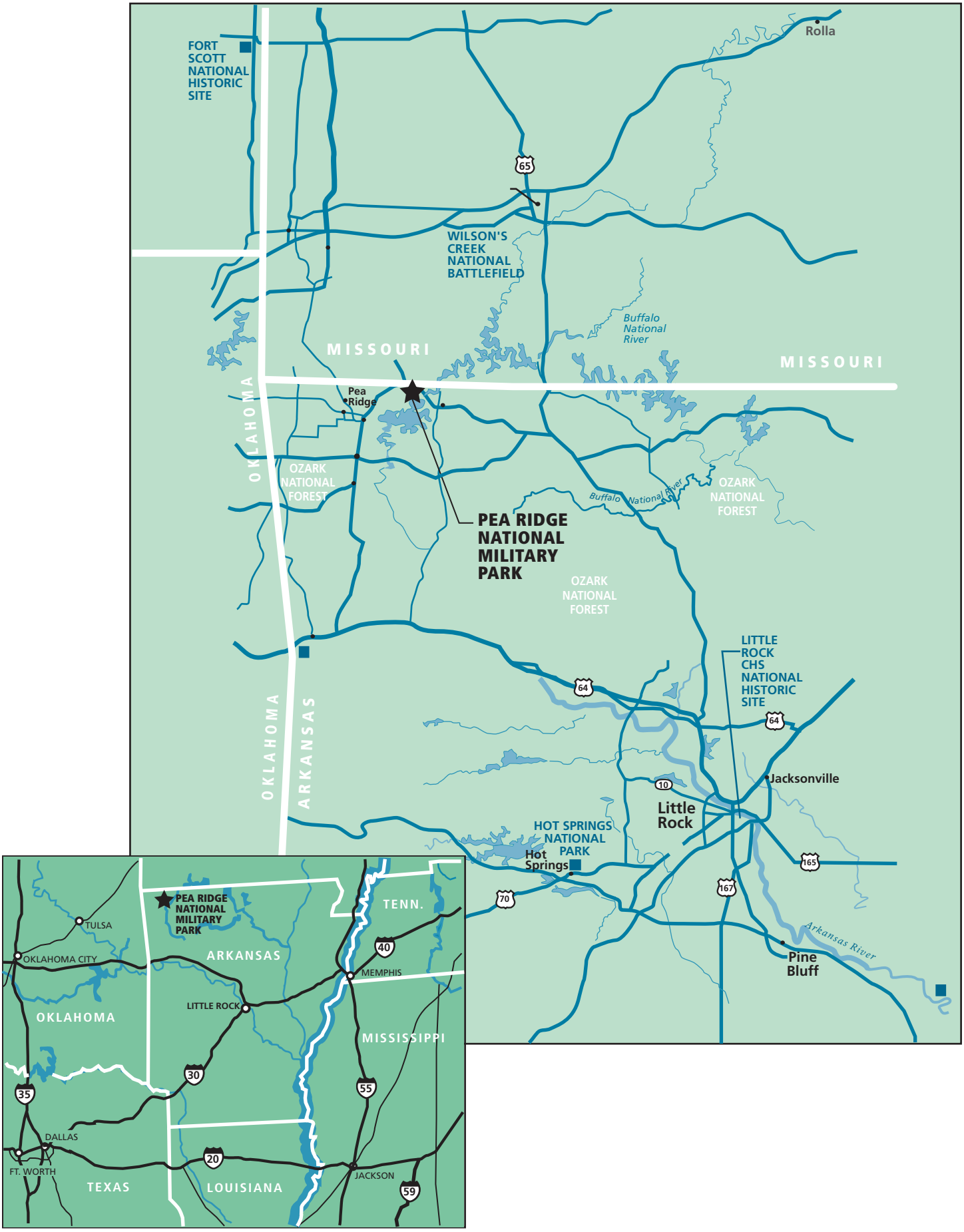
The GMP will define management zones that implement cultural and natural resource protection, visitor use and experience, and appropriate facility development. The GMP will determine where the management zones should be applied under each alternative to achieve the mission. The GMP will also assist NPS staff in determining whether future proposed actions are consistent with the park's purpose and significance.

The GMP does not describe how particular programs or projects should be prioritized or implemented. Those decisions will be addressed in more detailed strategic and implementation plans. However, the goals, future conditions, and appropriate types of activities established in the GMP will serve as the basis for these subsequent plans.

This foundation for decision making is developed in consultation with interested agencies, organizations, and individuals, and approved by NPS leadership after an adequate analysis of the adverse and beneficial environmental impacts, and economic costs of alternative courses of action.

NEED FOR THE PLAN

The last comprehensive management plan for Pea Ridge National Military Park was completed in 1964, shortly after the park was established. Patterns and types of visitor use, as well as our understanding of park resources and values, have changed.



Regional Map

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DSC • 037 • 20006 • AUG 2001

Recreational use has increased. Archeological investigations and historical research have shed new light on the context and meaning of the Battle of Pea Ridge and the resources associated with the battle. These changes have implications for how resources are managed, how visitors access and use the park, the facilities needed to support those uses, and how the park is operated. The 1964 plan does not meet the standards in current NPS planning guidelines, and it is not covered by a NEPA document.

PRIOR PLANNING

Master Plan

The 1964 *Master Plan* articulated several objectives:

- To restore, maintain, and preserve the fields and woodlands as they were in 1862.
- To rehabilitate, restore and preserve the Elkhorn Tavern, foundations of historic Leetown buildings, existing earthworks, and other structures and appurtenances as of 1862.
- To establish and maintain the system of historic trace roads that existed in 1862 to enhance the authentic recreation of the historic landscape.
- To develop and maintain, in accordance with the best modern principles, collections of historical objects directly related to the interpretive theme of the park.
- To restrict development of modern facilities with concern for the preservation of the primary historical features of the Pea Ridge battleground.
- To ensure the preservation and wise use of area resources by participating in and cooperating with archeological and historical research and other studies conducted by the National Park Service or outside professional sources before proceeding with development of facilities and services needed to carry out management programs
- To protect, operate, and maintain the physical facilities to assure maximum service and dependability.

All the current facilities in the park were planned and constructed in the context of the 1964 *Master Plan*.

Visitor Use and Development Plan

A *Visitor Use and Development Plan* was completed in 1983 (NPS 1983). The plan proposed an addition to the visitor center to provide adequate space for visitor use and operations, removal of modern features at the Elkhorn Tavern to reflect the historic landscape, and improved access to the Union trenches. None of the actions approved in that plan have been implemented. Elements of the *Master Plan* and *Visitor Use and Development Plan* have been considered in the general management planning process.

Transportation Study

In conjunction with the general management plan, a transportation study has been prepared to evaluate traffic conditions within the park and on the park boundaries relating to park access, safety, visitor use, visitor experience, and interpretation. The data in the transportation study helped the planning team develop the management alternatives, and it will provide park management with guidance on future traffic-related issues.

PARK PURPOSE

The park purpose and significance frame decisions about managing resources and providing for visitor use. Purpose is derived from legislation and the legislative record leading to the establishment of the park.

> Pea Ridge National Military Park was established to preserve and protect the landscapes and resources associated with the battle of Pea Ridge, to interpret the battle as an integral part of the social, political, and military history of the Civil War, and provide roads, trails, markers, buildings, and other improvements and facilities for the care and accommodation of visitors as necessary.

SIGNIFICANCE

The resources and values that led to the inclusion of a site in the national park system define its significance. The following significance statements identify those resources or values and are used in setting resource protection priorities, in identifying primary interpretive themes, and desirable visitor experiences. This helps focus funding and staff time on the protection and management of those attributes that directly contribute to the purpose of the park.

Significance Statements

- The Union victory at Pea Ridge prevented the Confederacy from gaining physical and political control of Missouri. Union control of Missouri subsequently provided a secure logistical base to embark upon a campaign to control of the lower Mississippi River Valley.

- Pea Ridge was the first major engagement outside Indian Territory in which troops from the Cherokee, Choctaw, Chickasaw, and Creek Nations fought for the Confederacy.

- Pea Ridge National Military Park encompasses nearly 90 percent of the combat sites of the Battle of Pea Ridge

- The Union trenches above Little Sugar Creek are the only constructed features remaining from the battle. They are remnants of the first entrenchments dug in the Civil War's Trans-Mississippi theater of operations.

In addition to the significance statements, these important points about the battle will help define the park's interpretive themes:

> Brig. Gen. Samuel Curtis had to redeploy his entrenched army after learning that Confederate Maj. Gen. Earl Van Dorn had bypassed the Union position and launched an assault on the Union rear.
>
> The Union Army, although outnumbered in terms of troops and artillery, launched the longest and most intense field artillery assault up to that point in the Civil War. The assault represented one of the few successful uses of massed artillery as an offensive tactic during the war.
>
> About one-third of the Union forces were German and eastern European immigrants from Missouri who made a

significant contribution to the Union victory at Pea Ridge.

HISTORICAL OVERVIEW

The political complexities of the Civil War defy easy explanation. Interregional rivalries, ethnic conflicts, ubiquitous racism, strategic disputes, and merciless guerilla war exacerbated the fundamental struggle over slavery and secession and impeded the war efforts of both the Union and the Confederacy. In no state did more of these factors make themselves felt more acutely than Missouri. Civil War had in fact begun along Missouri's western border years before the conflict formally erupted at Fort Sumter. Missouri's peculiar circumstances jumbled together abolitionists, pro-slavery Unionists, German émigré revolutionaries, and native Unionists in opposition to a variety of secessionists, including veterans of the border war, and Missouri-first loyalists who naively hoped that their state could remain neutral in the coming conflagration. Missouri's multiple political personalities were reflected to a small degree in other Trans-Mississippi states, particularly Arkansas, where pro-Union loyalists stubbornly held out in a Confederate state.

Added to this volatile mix were economic and geographic factors that made Missouri a unique strategic and tactical commodity as civil war neared. This border slave state was home to St. Louis, one of the nation's largest cities and the second-largest port on the Mississippi River. Two large Federal arsenals were in Missouri, one at St. Louis. Finally, Missouri combined with Illinois controlled navigation on the middle Mississippi River. Command of St. Louis and Missouri, therefore, was a prime objective of both Union and Confederate forces during the first year of the Civil War.

As was the case in other western cities, a majority of St. Louis residents were foreign-born. Among this immigrant population were large numbers of Germans, many of whom had fought in the revolutions of 1848 and remained politically active and militarily mobilized after their arrival in the United States. This group's passionate commitment to the Union cause ultimately had a significant impact on both the prelude and the outcome of the Battle of Pea Ridge.

Despite months of maneuvering by Union, Confederate, and pro-secessionist Missouri State Guard units, the situation in Missouri at the end of 1861 was not significantly different than it had been at the beginning of the war. A combined force of Confederate and Missouri State Guard troops had won a decisive victory at the Battle of Wilson's Creek near Springfield, Missouri, on August 10, 1861. Missouri State Guard commander General Sterling Price wanted General Benjamin McColloch in command of Confederate forces in Arkansas to join him in a follow-up offensive north to retake the Missouri River valley.

McColloch's troops had swung the balance for the victory at Wilson's Creek and he supported maintaining a Secessionist presence in Missouri. But the tough former Texas Ranger felt that a full-scale invasion exceeded his authority and probably would fail anyway. Besides, he detested Price, whom he considered a pompous windbag. His refusal to join with Price exacerbated the rift between the two generals and prevented Secessionist forces from exploiting the Union withdrawal from Springfield. By December, 1861, the situation was a stalemate. The Union controlled St. Louis, the Missouri River valley, and territory as far south as the railhead at Rolla. McColloch went into

winter quarters in Benton County Arkansas, not far from Pea Ridge, while Price's small force remained in southwestern Missouri, a deterrent to Union actions elsewhere in the state.

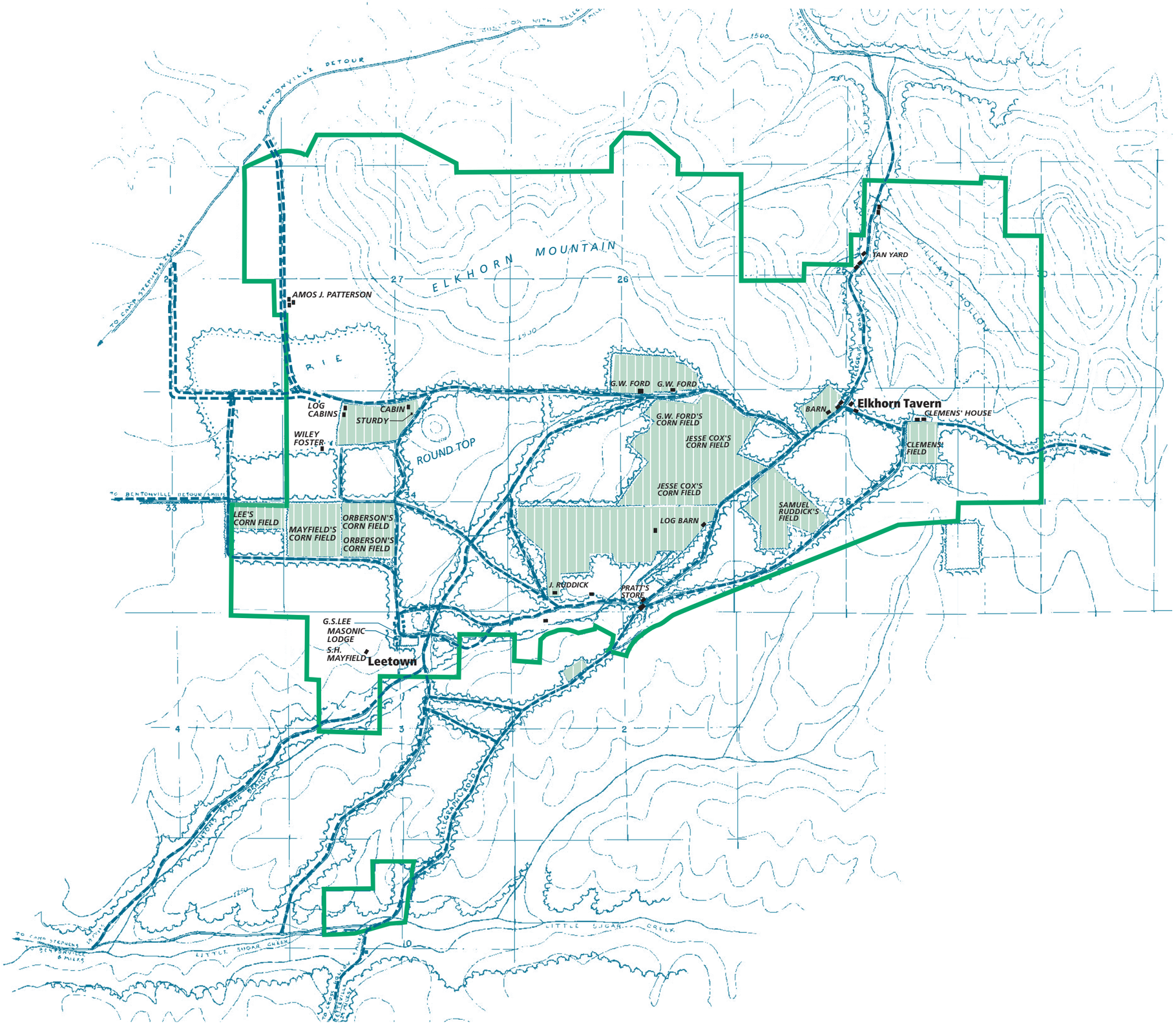
This equilibrium was soon disrupted. In November, 1861, General Henry Halleck took command of the Union Department of Missouri. Halleck was an able administrator who instilled badly needed purpose and direction in the Union's campaign in Missouri. Recognizing that Price's activities impeded Union objectives in the Mississippi Valley, Halleck determined to launch an offensive to destroy or disperse Price's army. On Christmas Day, 1861, Halleck appointed Brig. Gen. Samuel R. Curtis to head the Federal Southwestern District of Missouri.

Curtis' appointment generated some political controversy. Supporters of German-born General Franz Sigel wished to see him in command of this force. A large portion of this Union Army was made up of German immigrants who wanted to see their hero Sigel at the head of their army. These troops inspired fear among the residents of Arkansas and were of great value to the army. General Halleck and President Lincoln himself were highly sensitive to the importance of the large German-born population and had no wish to alienate these supporters of the Union causes. When Sigel at first resigned in protest after Curtis was named to command the army, Halleck worked hard at mending the general's wounded pride. Sigel soon returned to duty, but partisan bickering between native and German immigrants factions made command of this army far more complicated.

Curtis' mission was straightforward; neutralize the Confederate threat in Missouri. Despite the potential hardships of a winter campaign, Curtis almost immediately began applying pressure to force Price's army out of the state. By mid-February 1862, Curtis' Army of the Southwest had driven Price's force into Arkansas. On February 17, Curtis' troops defeated a Confederate force at the Battle of Little Sugar Creek, a few miles south of Pea Ridge. This Union advance forced the Confederates to withdraw to the Boston Mountains south of Fayetteville.
In the Boston Mountains, Price joined forces with Brigadier General Ben McCulloch's Confederates. In order to overcome the provincial conflicts and professional rivalries that had hindered Confederate objectives in the West, President Jefferson Davis had appointed Maj. Gen. Earl Van Dorn to assume overall command of the two armies. Ambitious, aggressive, and impulsive, Van Dorn on March 4 marched north with his consolidated 16,000-man force, intending to strike into Missouri and capture St. Louis.

Curtis had relentlessly pursued Price's army, despite the difficulties involved in supplying his army as it marched through the rugged and sparsely populated country of the Ozark Plateau. Now he found a numerically superior army across his line of advance and in fact taking the offensive against him. A retreat with this army in pursuit was unthinkable. So Curtis chose to make a stand against Van Dorn's approaching army. On the bluffs overlooking Little Sugar Creek, south of Elkhorn Tavern, and nearby Elkhorn Mountain (part of the larger Pea Ridge plateau), his 10,500 troops dug in and waited the Confederate attack.

Van Dorn knew that a frontal assault against Curtis' troops would be suicidal, so he decided to come in behind them. He flanked the Union force on the right and



Historic Conditions

PEA RIDGE NATIONAL MILITARY PARK

General Management Plan
Environmental Impact Statement

United States Department of the Interior • National Park Service
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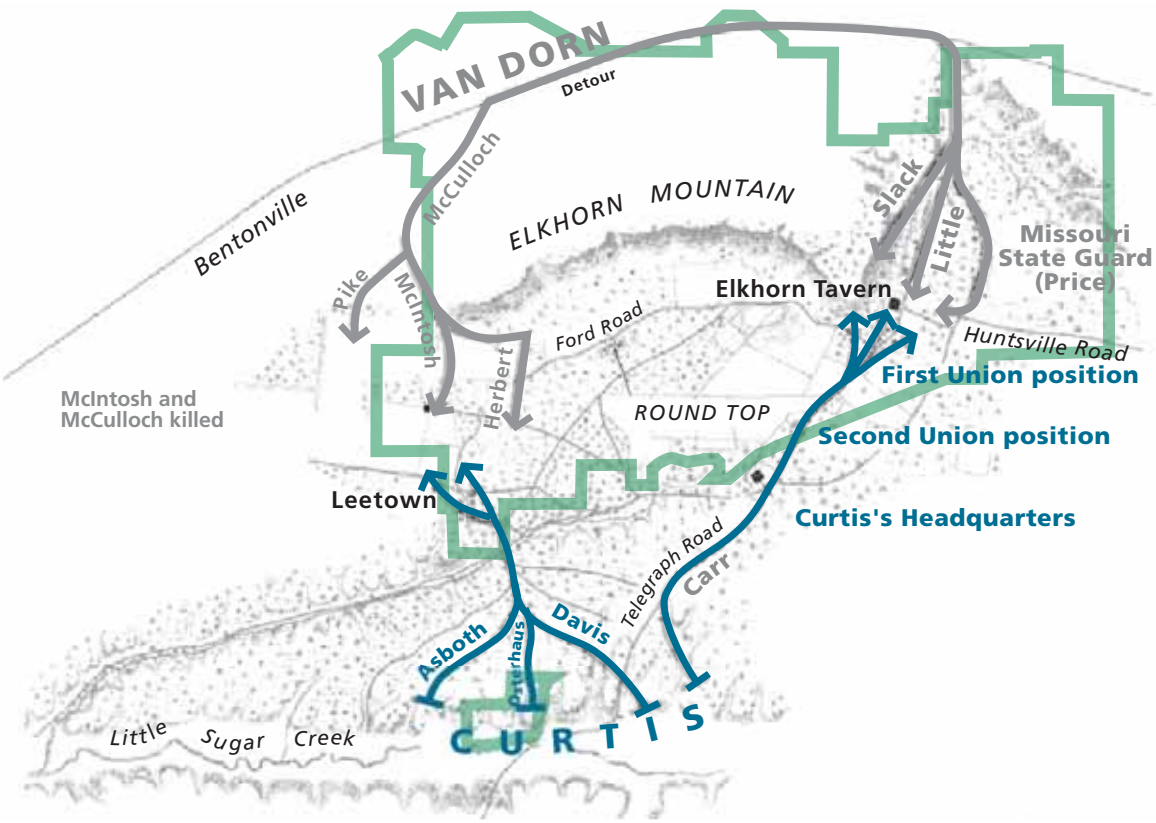
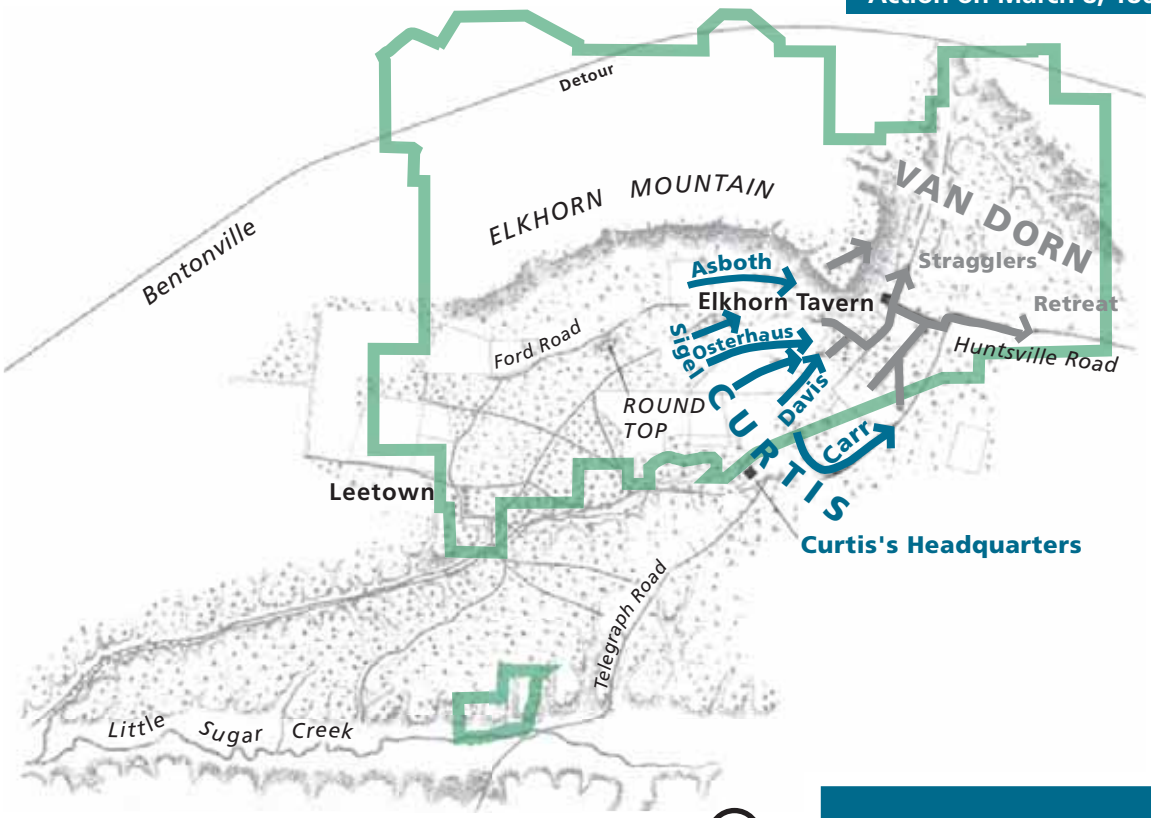
Action on March 7, 1862



Action on March 8, 1862



North
Maps not to scale

Battle Actions

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marched his army to the west and north to the rear of Curtis' position. Van Dorn intended to strike at dawn on March 7, but his troops, hungry, cold, and weary from a three-day march, arrived late. McCulloch's troops fell so far behind that Van Dorn decided to temporarily divide his army. McCulloch was ordered to retrace around the western end of Elkhorn Mountain, then turn east to rejoin Van Dorn near Elkhorn Tavern. These delays gave Curtis time to face about and prepare to receive the assault.

McCulloch's troops, including two regiments of Cherokee Indians under Brig. Gen. Albert Pike, marched west of Elkhorn Mountain and Little Round Mountain. The Confederates encountered Union resistance north of Leetown. General McCulloch was shot down by Union skirmishers as he reconnoitered the Union position. His subordinate, the impetuous General James McIntosh was killed shortly afterward at nearly the same spot as McCulloch. The force's ranking colonel was wounded and captured during intense combat around Leetown. With their top command structure practically destroyed, McCulloch's men scattered from the field.

The Confederate forces at the rear of the Union lines on the east side of Elkhorn Mountain fared considerably better. Despite aggressive attacks by elements of the Union 4th Division led by Colonel Eugene Carr, Price's Missourians slowly but steadily pushed the outnumbered Federals back until, at nightfall, they held Elkhorn Tavern and the crucial Telegraph and Huntsville Roads. During the night the survivors of McCulloch's Leetown fight joined them.

Disregarding fears that his army faced imminent destruction, Curtis counter-attacked in the tavern area on the morning of March 8. His massed artillery severely damaged the Confederate line and his concerted infantry and cavalry attacks crumpled their defenses. Confederate resistance collapsed under the relentless pressure of the Union offensive. Van Dorn's force broke into fragments and retreated in two directions, abandoning the field to Curtis' forces.

The struggle for Missouri was effectively over. The state remained in Union hands for the rest of the war. Most of the Union and Confederate troops that fought at Pea Ridge moved east across the Mississippi to fight in other campaigns. By saving Missouri for the Union, The victory at Pea Ridge made possible the more ambitious campaigns to retake control of the Mississippi River.

The Confederacy did not launch another challenge to Union control of the state until the ill-fated Price invasion in 1864. But the social, economic and psychological impact of the campaign was felt for the duration of the war and beyond. The two armies marching through the Ozark Plateau of southwestern Missouri and northwestern Arkansas devastated the homes, farms, and communities of the people, Unionist or rebel, living in or near the Telegraph Road corridor. Leetown was badly damaged. The Elkhorn Tavern, which miraculously survived the savage fighting that swirled around it, was later burned by Confederate raiders. Worst of all, the war in Missouri degenerated into a brutal guerilla conflict. Some troops that fought on the Confederate side turned bushwhacker in a war that dwarfed the miseries of the border fighting of the 1850s. The guerilla war destroyed lives, families, and communities, laid waste entire counties and regions, and sowed seeds of hatred and resentment that

persisted for a generation or more, long after the surrender of the major Confederate armies. As for the Pea Ridge region, the war effectively destroyed what had been a flourishing local economy. Nearly a century passed before the area returned to levels of economic prosperity and social development equal to those known in the pre-Civil War period.

MANDATES AND POLICIES

The National Park Service must adhere to a number of federal laws, presidential executive orders, federal regulations, and agency policies derived from law. The management alternatives developed to achieve the desired future conditions for Pea Ridge National Military Park must conform to these laws and policies. These laws and policies guide the actions taken by park staff on topics such as air quality, threatened and endangered species, vegetation, and wetlands, the preservation of cultural resources, relations with public and private organizations, sustainable practices, and public services such as visitor use and information.

Some laws, executive orders, regulations, and policies that guide park management apply solely or primarily to units of the National Park Service. These include the 1916 Organic Act creating the National Park Service, the General Authorities Act of 1970, and the act of March 27, 1978, relating to the management of the national park system. Others have much broader application, such as the Endangered Species Act, the National Historic Preservation Act and Executive Order 11990 addressing the protection of wetlands. The NPS Organic Act (16 U.S.C. § 1), which provides the fundamental management direction for all units of the national park system, is summarized below:

> promote and regulate the use of the federal areas known as national parks, monuments, and reservations…by such means and measure as conform to the fundamental purpose of said parks, monuments and reservations, which purpose is to conserve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.

The National Park System General Authorities Act (16 U.S.C. § 1a-1 *et seq*.) affirms that while all national park system units remain "distinct in character," they are "united through their interrelated purposes and resource into one national park system as cumulative expressions of a single national heritage." The act makes it clear that the NPS Organic Act and other protective mandates apply equally to all units of the system. Further, amendments state that NPS management of park units should not "derogat[e]…the purposes and values for which these various areas have been established."

The NPS Organic Act and the General Authorities Act prohibit any impairment of park resources. *National Park Service Management Policies (*NPS 2001*)* state that an impact would be more likely to constitute an impairment to the extent that it affects a resource or value whose conservation is (1) necessary to fulfill a specific purpose identified in the establishing legislation or proclamation of the park, 2) key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park, or 3) identified as a goal in the park's general management plan or other

relevant NPS planning documents. Chapter 4, "Environmental Consequences," identifies whether each alternative meets the requirement to leave park resources and values unimpaired.

The National Park Service has established policies for all units under its stewardship. These are identified and explained in the NPS *Management Policies* (NPS 2001). These policies and practices would continue to guide park managers under all of the alternatives described in this plan. Park staff would continue to implement NPS policies and goals, as identified in NPS *Management Policies*, the NPS *Strategic Plan*, and many standard park practices.

Table 1 lists the key mandates and policy topics that apply at Pea Ridge National Military Park and the conditions to be achieved.

SPECIAL MANDATES AND ADMINISTRATIVE COMMITMENTS

The enabling legislation contains no specific mandates for the management or development of Pea Ridge National Military Park. The enabling legislation referenced the National Park Service Organic Act (1916) as the primary guidance for management and development. Therefore, the National Park Service applies policy within the context of general legislation and the *American Battlefield Protection Program*. The warranty deed transferring title to the United States specified two easements for landowners adjacent to the south boundary along U.S. 62.

The state of Arkansas retains ownership of 21.6 acres for public roads. The warranty deed also provides for a 40-foot right-of-way for a public road on the township line between townships 20 and 21 North (Leetown Road). The United States was given a perpetual easement over, under, and on U.S. 62 and the county road. Two 20-foot-wide, 300-foot-long perpetual easements were provided to two properties affected by establishment of the park.

Table 1: Mandates and Policies Pertaining to Pea Ridge National Military Park

TOPIC	Current Laws and Policies Require That the Following Conditions Be Achieved at the Park
Relations with Private and Public Organizations, Adjacent Landowners, and Government Agencies	Pea Ridge National Military Park (NMP) is not an isolated resource – the park is an important cultural, social, and historical part of a greater geographic region. The park must consider how its actions would affect the surrounding environment and society. **Policy/Mandate.** The National Park Service would manage Pea Ridge NMP holistically as part of a greater ecological, social, economic, and cultural system. The park works cooperatively with others to anticipate, avoid, and resolve potential conflicts, protect park resources, and address mutual interests in the quality of life for community residents. Regional cooperation involves federal, state, and local agencies, neighboring landowners, and all other concerned parties. **Sources:** National Environmental Policy Act, NPS *Management Policies, 2001.*
Natural Resources	The study, management, and protection of the natural resources and processes at Pea Ridge NMP are essential to achieving the purpose of the park. **Policy/Mandate.** Pea Ridge NMP would retain its ecological integrity, including its natural resources and processes. The natural features of the park would remain unimpaired, or be restored to their historic condition. Natural resources would be managed in support of the interpretation of and rehabilitation of the historic cultural landscape. NPS personnel would use the best available scientific information and technology to manage the park's natural resources. The park would be recognized and valued as an outstanding example of resource stewardship, conservation, education, and public use. **Sources:** NPS Organic Act, NPS *Management Policies, 2001.*
Species of Concern	Federal and state-listed threatened and endangered species and their habitats are protected and sustained. Populations of native plant and animal species function in as natural condition as possible except where special considerations are warranted. **Policy/Mandate.** Native species populations that have been severely reduced in or extirpated from the park are restored where feasible and sustainable. The management of populations of exotic plant and animal species will be undertaken wherever such species threaten park resources or public health and when control is prudent and feasible. **Sources:** Endangered Species Act, NPS *Management Policies,* Executive Order 13112, "Invasive Species."
Fire Management	Fire is an important tool in managing, rehabilitating, and restoring the natural environment of Pea Ridge NMP. **Policy/Mandate.** The use of controlled fire as a management tool contributes substantially to the restoration and maintenance of the composition, health, and vigor of the plant communities and animal habitat within the park. Fire can be very destructive of archeological resources and other sensitive battlefield resources. Its use in this park would be governed by cultural management principles. **Source:** NPS *Management Policies, 2001.*
Natural Sounds	The natural ambient sounds of Pea Ridge National Military Park contribute to the reflective contemplative atmosphere that is appropriate to the commemoration of the enormous sacrifices made the combatants in the battle. The National Park Service is committed to protecting and preserving the natural sounds of the park. **Policy/Mandate.** The National Park Service restores the natural ambient condition wherever possible, and protects natural sounds from degradation due to human-caused noise. The National Park Service manages disruptions from recreational uses to provide a high-quality visitor experience, striving to preserve or restore the natural quiet and natural sounds. **Sources:** NPS *Management Policies,*

TOPIC	Current Laws and Policies Require That the Following Conditions Be Achieved at the Park
	*2001,*Executive memorandum signed by President Clinton on April 22, 1996.
Archeological Resources	The archeological resources of Pea Ridge provide essential links to the Battle of Pea Ridge and also provide direct physical evidence of the battle and related activities, as well as placing the battle action in physical space. This greatly enhances visitor understanding and appreciation of the history and significance of the battle. **Policy/Mandate.** Archeological sites are identified and inventoried, and their significance is determined and documented. Archeological sites are protected in an undisturbed condition. In those cases where disturbance or deterioration is unavoidable, the site is professionally documented and salvaged. **Sources:** National Historic Preservation Act, Archeological Resources Protection Act, NPS *Management Policies, 2001.*
Battlefield Resources and Features	The battlefield resources and features at Pea Ridge NMP, including buildings, entrenchments, sites and landscapes, are integral parts of the park physical setting and provide direct physical evidence of the battle and related activities, as well as placing the battle action in physical space. Protection of these resources is essential for visitor understanding of the battle and its long-term implications for the Civil War in the West. **Policy/Mandate.** Park management would protect and preserve the integrity of the historic properties at Pea Ridge NMP unimpaired for future generations. Park visitors would recognize and understand the value of the park's cultural resources. Pea Ridge NMP would be recognized and valued as an example of resource stewardship, conservation, education, and public use. **Sources:** National Historic Preservation Act, Archeological Resources Protection Act, NPS *Management Policies, 2001.* American Battlefield Protection Program.
Collections	Pea Ridge manages and protects an extensive collection of archival materials and museum objects. **Policy/Mandate.** All museum objects, manuscripts, and other archival materials are identified and inventoried, and their significance is determined and documented. The qualities that contribute to the significance of the park's collections will be protected in accordance with established policies and standards. When additional museum objects and archival materials related to the Battle of Pea Ridge and the Civil War in the Trans-Mississippi West become available, the park will make every effort to ensure their long-term preservation. **Sources:** Management of Museum Properties Act, National Historic Preservation Act, Archeological Resources Protection Act, NPS *Management Policies, 2001.*
Ethnographic Resources	A variety of cultures contributed to the historical significance of the Battle of Pea Ridge. **Policy/Mandate.** The park will consult regularly with tribes and groups with traditional associations to the Pea Ridge battlefield and park resources. Ongoing consultation will enable the collection of data on the ethnographic dimensions of the battlefield landscape, and to assist park planners and managers in identifying the potential impacts of management decisions on these resources. In addition, the park will cooperate with the Midwest Region Applied Ethnography Program in conducting an ethnographic study for Pea Ridge. National Historic Preservation Act; NPS *Management Policies 2001;* Executive Order 13007 on American Indian Sacred Sites; Native American Graves Protection and Repatriation Act; American Indian Religious Freedom Act; Presidential memorandum of April 29, 1994, on government-to-government relations with tribal governments.

TOPIC	Current Laws and Policies Require That the Following Conditions Be Achieved at the Park
Visitor Use and Experience	The purpose of Pea Ridge NMP is to commemorate the history and significance of the Battle of Pea Ridge for the appreciation and enjoyment of the American people. **Policy/Mandate.** Visitors understand and appreciate park values and resources and have the information necessary to enjoy fully the park environment and its resources. Visitors have opportunities to enjoy the park in ways that leave the resource unimpaired for future generations and would contribute to the park's preservation through appropriate use and behavior. Recreational uses in the park are managed to ensure that they are consistent with the purpose and significance of the park. **Sources:** NPS Organic Act, National Historic Preservation Act, NPS *Management Policies, 2001*.
Transportation	The park will work to balance regional transportation development with the need to protect and preserve the qualities for which Pea Ridge National Military Park was created. **Policy/Mandate.** Park management will work with federal and state highway officials to consider feasible alternatives to highway expansion or other transportation developments that pose potential adverse impacts on Pea Ridge NMP. The National Park Service and other federal and state officials will work cooperatively to mitigate the impacts of such development. **Sources:** 1966 Department of Transportation Act Section 4(f), NPS Organic Act, National Historic Preservation Act, National Environmental Policy Act.

PLANNING DIRECTION AND GUIDANCE

ISSUES AND CONCERNS

As a part of this planning process, the National Park Service held open house meetings and distributed newsletters to provide the public with information about the project. Interested parties have expressed their ideas on issues, concerns, or desires for the future condition of Pea Ridge. Issues requiring management action include:

Visitor Use

- Visitor use is evolving, and the demand for additional local recreational opportunities needs to be addressed in the context of the park's purpose.
- There is only minimal visitor access to the Union earthworks.
- Some parties feel that the National Park Service should establish trails throughout the battlefield to allow visitors to explore and better understand the setting.

Boundary Adjustments

- The boundary needs reevaluation. Portions of the battleground deemed significant were not included when the park was established. These areas must be reevaluated for possible inclusion in the park.

Resource Preservation

- During the 1990s the population of the Bentonville-Rogers-Pea Ridge area increased dramatically. This trend is expected to continue. Regional population growth has the potential to increase visitation substantially, which could affect the park's cultural and natural resources. Future development adjacent to the park could alter the landscape to a point where it compromises the historical context of the battlefield.

Public Roads

The only access to park facilities is from U.S. 62, which crosses the park along the southern boundary. Heavy traffic on U.S. 62 contributes to noise, visual impacts, resource damage, and safety issues within the park. Traffic levels are high and expected to increase significantly in the next 20 years.

AR 72 is a state highway that provides a local connection between the town of Pea Ridge and U.S. 62. Traffic on AR 72 bisects the Leetown battlefield, passing through the heart of this portion of the battlefield, and creating a major distraction for visitors trying to understand battlefield action on the west.

The north portion of the Telegraph Road allows uncontrolled access to a remote area of the park.

The North Old Wire Road is an unpaved county road developed to replace access to county roads located within the park. This road also provides unauthorized access to the park.

Access

The visitor experience focuses on the tour road to access the battlefield. Visitors generally do not explore the park beyond the tour route, although equestrians and hikers use the park trails. However, there is little opportunity for visitors to follow historic roads and trails to gain a deeper understanding of the landscape at the time

of the battle. There are two highways in the park boundary. Increased traffic on U.S. 62 affects the park's aesthetic values and visitor safety. AR 72 intrudes on the Leetown battlefield area. Some parties feel that AR 72 should be removed; others believe additional access should be provided from AR 72.

Relationship to Other Plans – Cooperative Planning

NPS management policies recognize that units of the national park system are integral parts of larger regional environments. Accordingly, the National Park Service would work cooperatively with others to anticipate, avoid, and resolve potential conflicts, to protect park resources and other resources related to the park, and to address mutual interests regarding quality of life for community residents, while and at the same time considering economic development and resource and environmental protection. Such regional cooperation would involve federal, state, and local agencies, American Indian authorities, neighboring landowners, and all other concerned parties.

Pea Ridge National Military Park managers would work to protect park resources and enhance the visitor experience by working cooperatively with regional governments, organizations, and interest groups to identify issues that could impact the park; by communicating those issues to the public; and by searching for solutions in cooperation with park neighbors, nearby communities, and local governments.

Park management works closely with a number of state, regional, and local agencies and organization who are involved in planning initiatives. These include the Northwest Arkansas Planning Commission, which is developing the Northwestern Arkansas Heritage Trail, part of the 2025 Regional Transportation Plan for urban Northwest Arkansas. The superintendent of Pea Ridge is the chair of the Northwestern Arkansas Civil War Heritage Trail, which covers Benton, Boone, Carroll, Circy, Madison, Marion, Newton, Van Buren, and Washington Counties. This undertaking is part of Arkansas Civil War Heritage Trail, which is overseen by the Arkansas Preservation Program under the Department of Arkansas Heritage.

The superintendent is a member of the City of Pea Ridge Long-Range Planning Commission, and also consults regularly with Native American tribes affiliated with the park through the Battle of Pea Ridge and the Trail of Tears.

The Trail of Tears

The Trail of Tears National Historic Trail commemorates the forcible removal of 16,000 people of the Cherokee Nation from their homelands in Tennessee, Alabama, North Carolina, and Georgia to the Indian Territory. Thousands of Cherokees died making the trip or from the consequence of relocation.

Pea Ridge NMP will work with the National Trails System Office in Santa Fe and Trail of Tears Association in preserving and protecting the Trail of Tears and in developing educational and interpretive programs to enhance public awareness, understanding, and appreciation for this tragic chapter in American history.

Highway Improvements

The state of Arkansas has identified a need to improve U.S. 62 between Rogers and

Gateway. The Arkansas Highway and Transportation Department's preliminary preferred alternative is to expand U.S. 62 in its current right-of-way through Pea Ridge NMP. Based on the most current archeological and historical research, this alternative poses the fewest impacts on battle-related resources when compared with the potential impacts of developing a new right-of-way outside the park. The National Park Service and the Arkansas State Historic Preservation Office support this alternative. However, this alternative poses substantial impacts on visitor safety and visitors' ability to use and enjoy the park. As a result, the existing park visitor center and administrative and maintenance facilities would be removed and new facilities developed in the southwest corner of the park. This new location would not include sensitive battle-related resources. Expansion of U.S. 62 would also include development of the new access to the Union trenches from U.S. 62. This action will be addressed in more detail in chapter 2 under "Actions Common to all Action Alternatives."

The park will also work closely with the Federal Highway Administration and the Arkansas Department of Transportation on issues relating to other highways in and around the park.

COMMON ASSUMPTIONS FOR THE GMP ALTERNATIVES

Both NPS staff and the general public expressed their desires for the park's future, which include

- reconciling increasing levels of recreational use with the park's core mission
- dealing effectively with development on the park boundaries, including scenic intrusions and increasing noise
- refining cultural and natural resource management strategies
- providing an effective and meaningful visitor experience
- planning cooperatively with local agencies, including neighboring city and county governments
- returning the battlefield landscape to the 1862 appearance
- forging partnerships with neighboring landowners
- ensuring that all visitors understand and appreciate the significance of Pea Ridge National Military Park.

DECISION POINTS

Decision points articulate the key decisions that park management must make. They are based on the issues, concerns, and desired conditions identified for Pea Ridge NMP, as well as agency requirements for general management planning. The decision points for this GMP are:

- To what extent can visitor access, services (including orientation), and facilities be provided at Pea Ridge National Military Park without compromising the integrity of the battlefield?

- How do we reconcile local and regional transportation needs with the mandate to preserve park resources and provide quality visitor experiences?

The plan outlines four alternative methods to address these decision points. Comments received during scoping demonstrated the public generally likes the management, use, and facilities of the park. The alternatives put forward different ways to manage appropriate visitor use, types and levels of facilities,

services, and activities while maintaining desired resource conditions.

ISSUES NOT ADDRESSED IN THIS PLAN

Deer Management

A state assessment of the deer population in the park revealed a need to develop a detailed management plan to ensure the health of the population and minimize adverse effects to vegetation and other wildlife in the park. The park will cooperate with the Arkansas Department of Natural Resources in the development of a wildlife management plan that will require comprehensive data collection and public involvement. Consequently, management of deer populations is not specifically addressed in this GMP.

IMPACT TOPICS – RESOURCES AND VALUES AT STAKE

Impact topics focus on specific resources or concerns that would likely be affected from implementing a management alternative. The analysis of impacts evaluates the consequences of each alternative and enables the planning team to compare the action alternatives to alternative 1 (no action). These impact topics are based on legal requirements, knowledge of limited or easily impacted resources, and concerns expressed by other agencies or the public during scoping. An explanation for including each topic is provided below.

Cultural Resources – Archeological Resources, Cultural Landscapes, and Historic Structures, Ethnographic Resources, and Collections

Actions proposed in this plan could affect archeological resources, cultural landscapes, historic structures, and ethnographic resources. These effects will be analyzed because the battlefield is an important historic landscape associated with a significant period of U.S. history. Ethnographic resources are the cultural and natural resources of a park that are of traditional significance to a traditionally associated people or culture. Native American peoples have long been associated with the Pea Ridge landscape. Some of the park's ethnographic resources, such as the Telegraph Road, have been identified. The National Park Service conducts ongoing consultation with traditional groups to identify other ethnographic resources within the park boundary.

The National Historic Preservation Act, the Archeological Resources Protection Act, and the National Environmental Policy Act, require that the effects of any federal undertaking on cultural resources, including ethnographic resources, be examined. Also, NPS policy requires consideration of cultural resources in planning proposals.

Natural Resources – Special Status Species, Plant Communities, and Wetlands

Special Status Species. Section 7 of the Endangered Species Act requires the National Park Service to consider impacts on threatened or endangered species at the federal or state level, or those species or populations considered rare, declining, or at levels near threatened or endangered. The U.S. Fish and Wildlife Service indicates the following Special Status Species could occur within the park: Ozark cavefish (*Amblyopsis rosae*), cave crayfish (*Cambarus aculabrum*,; gray bat (*Myotis grisescens*), and Indiana bat (*Myotis sodalis*).

Plant Communities. The Arkansas Natural Heritage Commission conducted a survey of the park for plants of special concern 2001(ANHC 2001). That survey identified two occurrences of the Ozark chinquapin, a member of the chestnut family, the lobed spleenwort (*Asplenium pinnatifidum*), and Ashe's juniper (*Juniperus ashei*). Although none of these species are considered endangered or threatened by the state, they are uncommon or have conservation concerns. Implementation of the management prescriptions or actions identified in the alternatives would result in changes in vegetation or plant communities within the park.

A vegetation management plan is currently being developed for the park. During the interim, existing management practices consist of mowing, leasing, and/or burning selected historic fields and the reduction of Eastern Red Cedar within known areas (e.g., historic fields, and historic road traces). The park is currently in the process of obtaining vegetative and exotic species inventories conducted through the Inventory and Monitoring Initiative. These two documents will be used in conjunction with a Historic Vegetative Map and annotated bibliography (expected completion date of FY05), our existing Historic Base Map, and Cultural Landscape Report and Inventory (tentative initiation date of FY06) to produce the final management plan. The park is researching the possibility that indigenous Europeans may have introduced some exotics between 1830 and 1862. The final management plan will incorporate this research and any appropriate mitigation techniques.

Wetlands

There are limited surface water sources within Pea Ridge National Military Park. There are several streams that originate in the park, and a number of stock ponds, which are remnants from agricultural practices prior to park establishment. The actions considered in the alternatives would have a negligible effect on surface or ground water within the park.

However, there is the potential that former and potential wetlands may be found in the Leetown area. If historic drainage patterns are restored as a result of implementation of the management zones, these wetlands could be restored. Therefore, impacts on wetlands will be analyzed.

Visitor Experience

Providing for visitor enjoyment, understanding, and stewardship is one of the fundamental purposes of the National Park Service. A growing trend to use the battlefield as a regional park could increase the potential for conflicts between recreational users and visitors who wish to experience and understand the park's historical significance. Many actions considered in the alternatives could affect patterns of visitor use and the type and quality of visitor experiences. Specific elements analyzed include visitor use activities and levels, visual and scenic resources, and visitor experience and interpretation.

Operations and Facilities

The alternatives considered in this plan could affect operations or require changes in park facilities or staffing levels.

Access and Circulation

Because U.S. 62 and AR 72 pass through the park and influence the visitor experience, the topic of transportation needs to be analyzed to determine the effects of alternatives on visitors, residents, and others using these roads.

IMPACT TOPICS DISMISSED FROM FURTHER CONSIDERATION

Some impact topics that are commonly considered during the planning process were not relevant to this general management plan because: (a) to implement the alternatives would have no discernible effect on the topic or resource or (b) the resource does not occur in the park.

Other areas of concern raised by the public were not considered because they are already prescribed by law, regulation, or policy or they require a level of detail beyond the scope of a general management plan. They will be addressed in subsequent planning documents, as appropriate.

This section describes each of these dismissed topics or concerns and the basis for excluding them from analysis.

Sacred Sites

According to Executive Order 13007 on "Indian Sacred Sites" (1996), the National Park Service will accommodate, to the extent practicable, access to and ceremonial use of Indian sacred sites by religious practitioners from recognized American Indian and Alaska native tribes and avoid adversely affecting the physical integrity of such sacred sites. Based on consultation with affiliated American Indian tribes or groups, there are no sacred sites within the park boundary.

Indian Trust Resources

Indian trust resources include tribal lands, assets, resources, and treaty rights. Any anticipated impacts to Indian trust resources that would result from a federal action must be explicitly addressed in environmental documents.

There are no Indian Trust Resources associated with Pea Ridge National Military Park. Therefore, this impact topic has been dismissed.

Prime or Unique Farmland

The 1981 Farmland Protection Policy Act (PL 97-98) was passed to minimize the extent to which federal programs contribute to the unnecessary and irreversible conversion of farmland to nonagricultural uses. It helps ensure that federal programs are administered in a manner that, to the extent practicable, is compatible with state, unit of local government, and private programs and policies to protect farmland. Farmland of concern include prime, unique, or land of statewide or local importance.

The National Park Service consulted with the Department of Agriculture's Natural Resource Conservation Service, the agency responsible for implementation of the Act. There are nine soil classification units within the park that are classified as prime farmland. There are no unique soil units within the park. There are four soils of statewide importance within the boundary.

Development of the park resulted in paving former roads and the use of some important farmland for facilities.

Development of public roads prior to establishment of the park also resulted in the conversion of some prime, unique, or important farmland. The total area affected was about 20 acres of 4,300 acres within the park. There would be negligible conversion of prime, unique, or important farmland associated with the alternatives in this plan.

Wildlife

The management prescriptions and specific actions associated with each alternative have been evaluated regarding the effects on common wildlife species within the park. NPS biologists have determined there would be little if any effect on common wildlife species. No dramatic changes to habitat, resident or migratory populations, or the diversity of general wildlife species within the park would be expected. Therefore, this topic is not included because the effects would be negligible.

Floodplains

Executive Order 11988, "Floodplain Management," directs federal agencies avoid to the extent possible the long- and short-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative. None of the actions in any of the alternatives would result in occupation or storage of artifacts or hazardous materials within 100-or 500-year floodplains or high-hazard areas or increase the risk of loss of life and property from flood damage. Natural and beneficial floodplain values would not be affected because there would be no restriction of hydraulic capacity.

Soils

Although there would be disturbance associated with some of the actions in the alternatives, the extent would be confined to specific areas and would be short-term. The erosion potential would generally be low because the topography is relatively level and the degree of vegetative cover is high. The application of best management practices, such as silt fencing, prompt revegetation, and slope stabilization, as identified by Arkansas Department of Environmental Quality, would control erosion and reduce construction impacts down to a negligible level. Disturbance would take place on specific sites of limited area or along narrow road corridors. The total developed area of the park would remain low, so permeability and runoff would not be affected to a noticeable degree.

Geologic Hazards

Pea Ridge National Military Park has no specific geologic hazards, such as seismic instability, volcanoes, or landslides.

Air Quality

Air quality in the park meets national ambient air quality standards for specified pollutants. Construction activities would cause only negligible short-term dust and vehicle emissions, which would be mitigated by best management practices. No long-term change in air quality associated with these actions would be expected.

Energy Requirements and Conservation Potential

The National Park Service would incorporate the principles of sustainable design and development into all facilities and park operations. Sustainability can be

described as the result achieved by doing things in ways that do not compromise the environment or its capacity to provide for present and future generations. Sustainable practices minimize the short-and long-term environmental impacts of developments and other activities through resource conservation, recycling, waste minimization, and the use of energy efficient and ecologically responsible materials and techniques.

The National Park Service's *Guiding Principles of Sustainable Design* (1993) provide a basis for achieving sustainability in facility planning and design, emphasizes the importance of biodiversity, and encourages responsible decisions. The guidebook describes principles to be used in the design and management of visitor facilities that emphasize environmental sensitivity in construction, use of nontoxic materials, resource conservation, and recycling. Pea Ridge National Military Park staff reduces energy costs, eliminates waste, and conserves energy resources by using energy-efficient and cost-effective technology wherever possible. Energy efficiency would also be incorporated into any decision-making processes during the design or acquisition of structures, as well as all decisions affecting park operations. The use of value analysis and value engineering, including life cycle cost analysis, would be performed to examine energy, environmental, and economic implications of proposed development. In addition, the National Park Service encourages suppliers, permittees, and contractors to follow sustainable practices, and NPS staff to address sustainable park and nonpark practices in interpretive programs.

Therefore, the impact topics of energy requirements and energy conservation potential are dismissed from further consideration.

Environmental Justice

Executive Order 12898 requires federal agencies to identify and address disproportionately high and adverse human health or environmental effects of federal programs and policies on minority and low-income populations. The executive order requires that these programs and policies do not discriminate against people (including populations) because of race, color, or national origin. None of the actions proposed in this management plan would have disproportionate or adverse impacts on minorities or economically disadvantaged populations. With the exceptions of the proposed boundary adjustments, the impacts of most actions described in the general management plan would occur within the park boundaries and would pose no environmental or economic impacts on any populations in the vicinity of the park. Some socioeconomic impacts related to the implementation of the general management plan could affect surrounding communities, but it is anticipated that these impacts would have a beneficial impact on the region's socioeconomics. Any land acquisitions that occur as a result of the boundary adjustment would involve willing sellers. Therefore this impact topic has been excluded in the analysis.

PLANNING CONTEXT, VARIABLES, AND CONSTRAINTS

Carrying Capacity

Carrying capacity describes the type and level of visitor use that can be accommodated while sustaining the desired resource and social conditions that

complement the purpose of a park unit and its management objectives.

The general management plan will address visitor carrying capacity by describing desired visitor experiences, resource conditions, and appropriate support facilities in the application of the management areas established for the park. Further definition of visitor capacities for Pea Ridge are unnecessary at this time. The park staff will monitor resource and visitor experience conditions over time. If trends are identified that indicate changes from desired resource and visitor experience conditions, detailed visitor management planning will be initiated.

Boundary Adjustments

- The General Authorities Act of 1970 directs the National Park Service to identify potential boundary adjustments in general management plans. In evaluating any proposed changes to the existing boundaries of individual park units the National Park Service must analyze whether the existing boundary provides for the adequate protection and preservation of the natural, historic, cultural, scenic, and recreational resources integral to the unit. It must also assess the impact of potential boundary adjustments, taking into consideration the factors listed above as well as the effect of the adjustments on the local communities and surrounding areas.

Boundary adjustments may be recommended to

- protect significant resources and values, or to enhance opportunities for public enjoyment related to park purposes
- address operational and management issues, such as the need for access or the need for boundaries to correspond to logical boundary delineations such as topographic or other natural features or roads
- otherwise protect park resources that are critical to fulfilling park purposes

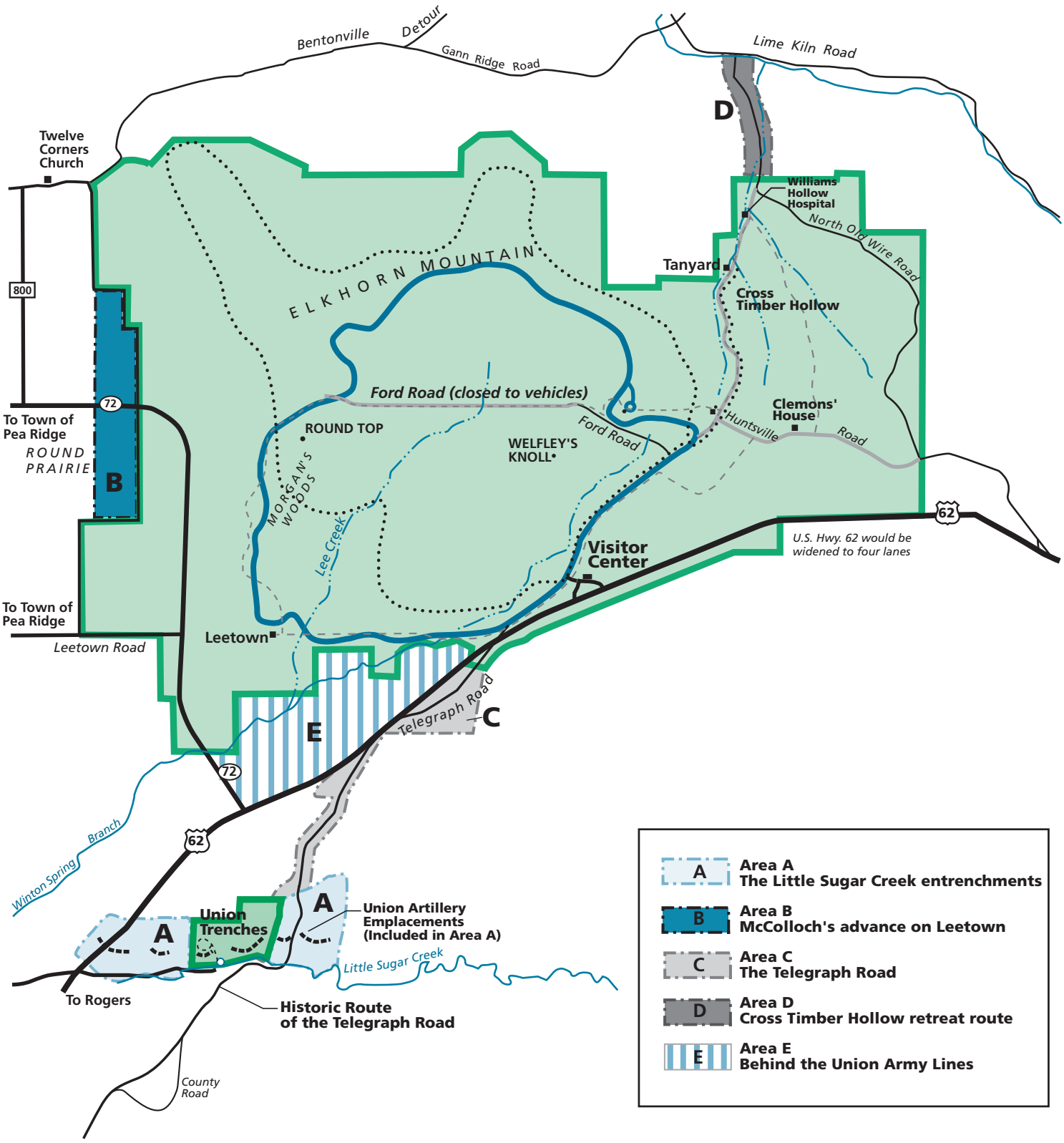
As part of the general management planning process, the National Park Service has identified and evaluated boundary adjustments that may be necessary or desirable to carry out the park's purposes. As stated in NPS *Management Policies*, all recommendations for boundary changes must meet the following two criteria:

1) The added lands will be feasible to administer, considering their size, configuration, ownership, the presence of hazardous substances or exotic species, costs, impacts on local communities, etc.

2) Other alternatives for management and resource protection are not adequate.

The National Park Service must identify and use, to the maximum extent possible, alternatives to the direct federal purchase of privately owned lands. The National Park Service can acquire only the minimum amount of land necessary to achieve management objectives, and it can cooperate with landowners, other federal agencies, tribal, state, and local governments, and the private sector to manage land for public use or protect it for resource conservation.

The authorized boundary of Pea Ridge National Military Park encompasses 4,300 acres. While most of the actual combat areas associated with the Battle of Pea Ridge are within park boundaries, some areas significant to the battle lie outside



Potential Boundary Adjustments

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the park boundary. These lands include the following:

Area A: The Little Sugar Creek Entrenchments. This 125-acre area contains remnants of the entrenchments built by the Union Army to fortify the bluffs above Little Sugar Creek against the advancing Confederate army. These nationally significant resources are remnants of what were likely the first earthworks dug in the Trans-Mississippi theatre of operations and also are the only remaining original structural elements relating to the battle. The presence of the Union trenches above Little Sugar Creek determined to a large degree the evolution of the combat at Pea Ridge.

Acquisition of this area would provide a greater level of protection for those remnants of the Union entrenchments currently outside the park boundary. As physical evidence of the armies' presence, they are essential to visitor understanding of the history of Pea Ridge.

Area B: General McColloch's Advance on Leetown. This 50-acre area contains nationally significant resources directly related to the purpose of the park. This was the site of the some of the initial combat north of Leetown on March 7. Here the Confederate 16th Arkansas Infantry regiment moved to engage Union troops advancing from the defensive positions on Little Sugar Creek. It also includes the area where the Union 3rd Iowa Cavalry clashed with troops from the Cherokee Nation and the gap in the line of timber through which retreating Union troops fled to safety after being routed by Confederate cavalry. Finally the area also includes the site of the death of Confederate Brig. General Ben McColloch. McColloch's fatal decision to reconnoiter the Union deployment after their retreat brought him within range of Union infantry skirmishers. His death had a profound effect on the outcome of the Battle of Leetown.

Acquisition of these lands would protect important battlefield resources associated with Pea Ridge NMP, including the actual site of the death of General McColloch. Access to these lands would enhance visitor understanding of the action that initiated the Battle of Leetown, one of the only Civil War conflicts in which significant numbers of Native American troops played a role. It would contribute to visitor understanding of the ways in which the Union Army responded to this threat to its right flank and how the combination of Union initiative and the death of McColloch played essential roles in the outcome of this phase of the larger battle of Pea Ridge.

Area C: The Telegraph Road. This would add about 2 miles of the Telegraph Road to the park and provide greater visitor access to this nationally significant resource. The Telegraph Road was the most important transportation artery in northwestern Arkansas, connecting that part of the state with southern and central Missouri and northwest and west central Arkansas. The road had earlier been used by the Cherokees and other tribes during their forced removal to Indian Territory. is part of a transportation resource that was essential to the strategic objectives of both armies operating in the Trans-Mississippi theatre.

Control and use of the Telegraph Road was essential to the strategic objectives and logistics of both armies operating in the Missouri-Arkansas theatre. Park ownership of this additional segment of the road would enhance the park's ability to explain the role of transportation in the Pea Ridge

campaign. Visitor use of the Telegraph Road between the Union trenches and the main park unit would also enhance visitor understanding of the Union response to the Confederate flanking movement that initiated the battle.

Area D: Cross Timber Hollow retreat route. This 35-acre site is a ¼-mile-wide corridor along the Cross Timber Hollow and Telegraph Road to its junction with Lime Kiln Road. Part of the Confederate Army of the West advanced and retreated on this route.

Acquisition of this area would enhance visitor access to Cross Timber Hollow. It would extend the park boundary to the natural topographic features that helped define critical stages of the battle. It would also enable the park to acquire and protect an additional portion of the historic Telegraph Road.

Area E: Behind the Union Army Lines. This approximately 200-acre parcel of land is south of the exiting park boundary, east of Arkansas Highway 72, and north of U.S. Highway 62. Acquisition of this land would improve operation and management of the park by adjusting the boundary to correspond to major regional access roads and thereby enhance visitor access to and enjoyment of the park. This area also contains some resources associated with the Battle of Pea Ridge, including part of the Union Army's supply area and historic road traces used by Union troops as they maneuvered to confront the advancing Confederate forces.

It is recommended that this area be included within the boundary of Pea Ridge NMP. However it is not recommended that the National Park Service acquire fee simple ownership of these lands now. Acquisition of less-than-fee simple real property rights, such as easements or rights-of-way, would provide the National Park Service with the specific interests that would enable it to protect resource values and improve overall park administration and management. Fee simple acquisition of these or other lands for Pea Ridge National Military Park would require congressional authorization.

Feasibility

NPS administration and management of these additional lands will be feasible. The total area of these parcels is equal to less than 10% of the existing park lands. These lands are adjacent to the park and their configuration generally follows landforms such as hollows or landscape features such as roads that connect with the park.

Park managers have been consulting with landowners to discuss the boundary adjustment process. In 2004 the National Park Service conducted a public involvement process and published two newsletters to inform neighboring landowners that their lands contained significant resources related to the Battle of Pea Ridge. Please see the "Consultation and Coordination" section for a description of this process.

The presence of hazardous substances would be determined before any commitments were made to acquire land. It is not anticipated that exotic species not already within the park inhabit these lands. The park is currently collecting data on land costs in the vicinity. It is anticipated the impacts of acquisition of these lands on local communities would be minimal.

It does not appear that there are viable options to NPS management and resource protection. However, as stated above, NPS involvement does not necessarily mandate fee-simple acquisition of the additional

lands. The following section outlines the range of actions under which the park service can provide management and protection for these lands.

Land Protection

The National Park Service may employ different methods, as appropriate, for protecting park resources. These methods will be considered in a more detailed land protection planning process. These various methods include

- acquisition of fee simple real property interest, possibly with arrangements for some rights to be reserved
- donations from private owners
- acquisition of less-than-fee real property interests, such as easements or rights of way
- cooperative approaches, such as cooperative agreements, participation in regional consortiums, local planning and zoning processes, or other measures that do not involve federal acquisition of any interest in real property

The enabling legislation for Pea Ridge National Military Park specifies that land for the park can only be acquired through donation. Purchase from a willing seller would require an amendment to the legislation.

Pea Ridge National Military Park would first pursue alternatives that would avoid acquiring fee simple lands. The park primarily would work through federal and local planning processes to establish cooperative agreements with the owners of these significant properties. The National Park Service and Pea Ridge National Military Park would consider acquisition of fee simple ownership only if a willing seller were available. The National Park Service would work with other organizations, such as the Civil War Preservation Trust, to devise strategies for protecting lands identified in the boundary assessment.

In those cases where landowners do not wish to enter into more formal agreements with or transfer lands to the National Park Service, the Park Service could provide technical assistance to neighbors who are interested in protecting the significant resources on their property.

The boundary adjustments would be applied differently under each of the action alternatives. See the section "Boundary Adjustments" under the action alternatives for a description of how the boundary adjustments would be applied.

Areas Assessed but not Recommended for Inclusion

Camp Stephens. This 1,000-acre area in the Little Sugar Creek Valley includes the site of a desperate fighting retreat by Union troops of the 1st and 2nd Divisions under the command of Major General Franz Sigel against the advance forces of the Confederate Army as it assumed the offensive in the Pea Ridge campaign. This area also served as the staging area for the Confederate flanking movement to the right of the Union position above Little Sugar Creek. Camp Stephens later served as the Union encampment after the battle.

Dunigan's Farm. The 80-acre site about ½-mile southwest of the detached unit of the park was the site of the Battle of Little Sugar Creek, the first significant Civil War engagement in Arkansas and a critical point in the overall Union campaign to secure control of Missouri. Following this battle, Confederate forces retreated farther south to the Boston Mountains,

giving General Curtis and his staff a chance to reconnoiter the hills and ridges overlooking the Little Sugar Creek Valley. Curtis concluded as a result of this reconnaissance that Pea Ridge was the place where he would retreat to make his stand if pressed by a Confederate advance.

Acquisition of these lands is not recommended, based on the criteria outlined in NPS management policies. While important to the story of the Battle of Pea Ridge, their acquisition is not critical to fulfilling park purposes. Furthermore, NPS administration and management of these lands is not considered feasible at this time. It is recommended that the park work in partnership with other state, local, and private organizations to develop protection strategies for the resources associated with Camp Stephens. These protection strategies would be based in part on the findings of studies conducted by the Civil War Sites Advisory Commission. Partners in this effort would include the Arkansas Historic Preservation Program, the American Battlefield Protection Program, the Northwest Arkansas Planning Commission, the Department of Arkansas Heritage, the City of Pea Ridge Long-Range Planning Commission, Benton County Planning Board, the Benton County Historical Society, the cities of Bentonville, Rogers, and Pea Ridge, and other Arkansas state agencies as appropriate.

Alternatives Including the Preferred Alternative

INTRODUCTION

This chapter describes the four alternatives that were developed to provide resource protection and visitor experience at the park and the five management zones that identify how different areas of the park would be managed.

The four alternatives for park management are (1) "No Action" (continuation of existing management); (2) "Immersed in the Field of Battle Through Direct Experience," (3) "Window into the Past through Interpretation," and (4) "Exploration and Discovery" (the preferred alternative). Each alternative has

- a management concept and general management strategies
- a description of how each area of the park would be managed (application of management zones to areas within the park)
- recommended boundary adjustments.

These alternatives articulate different approaches for achieving the vision expressed by the public, the National Park Service, and other interested parties for cultural and natural resource conditions and desired visitor use and experience at Pea Ridge National Military Park.

MANAGEMENT ZONES

The management zones prescribe how different areas in the park would be managed to achieve a combination of resource protection and visitor use. The management zones for Pea Ridge National Military Park are described below in terms of desired resource condition, visitor experience, and appropriate activities and facilities.

ARKANSAS HIGHLANDS ZONE

Pea Ridge National Military Park is in the physiographic zone known as the Ozark Plateau, a vast upland area that includes most of southwestern Missouri and northwestern Arkansas. Rolling tablelands, rocky highlands, narrow valleys and deep ravines define this region. At the time of the battle, farms and small towns grew up along the Telegraph Road and the tributaries roads that fed into it the region's main transportation artery. These farms, communities, and roads systems defined Pea Ridge's cultural landscape.

The park's hardwood forests, small prairies, and the timbered slopes and hollows of Elkhorn Mountain, characteristic features of the Ozark Plateau, reflect the plateau's natural landscape and its influence on the Battle of Pea Ridge. The remnants of open fields and historic roads remind visitors that the battle was fought literally in peoples' front yards.

Management in this zone would focus on enhancing the visitor experience at the park by protecting the natural and historic features of the plateau region within the cultural context of the 1862 time frame.

Desired Resource Condition

Management in this area would seek to reestablish the natural landscape features of the Ozark Plateau, the physiographic region that helps define the cultural landscape of Pea Ridge battlefield. Natural prairies would be maintained or restored. Woodlands would be preserved or allowed to reestablish in areas that were wooded at the time of the battle.

This area would not contain the most critical portions of the battlefield, but some important features of the 1862 battlefield landscape would be located here. Cultural landscape features such as historic roads and traces would be rehabilitated to provide access within this area. Historic fields present at the time of the battle would be maintained to give visitors a sense of what the combatants saw on those two days in March, 1862.

Park management would follow NPS management policies for the control or removal of exotic species in order to encourage the perpetuation of native species and natural systems. Exotic species could be managed to provide screening from auditory and visual intrusions, where appropriate.

Visitor Experience

Visitors in this area would have opportunities to experience the natural and cultural character of rural Arkansas as it generally appeared to the combatants at the Battle of Pea Ridge. Visitors could expect a low probability of encountering park staff and a low probability of meeting other visitors. Opportunities for activities such as hiking or horseback riding would be provided in this natural setting. Wherever possible,

visitor access would be focused on historic routes. More adventurous visitors would have the chance to challenge the dense hardwood thickets where Union and Confederate troops maneuvered, fought, and sought refuge on March 7 and 8, 1862. This would provide opportunities for visitors to familiarize themselves with the natural environment of 1862 Arkansas and gain an appreciation of the experiences of the soldiers who campaigned and fought at Pea Ridge.

Activities and Facilities

This area could be experienced via hiking and horseback riding; these activities would be allowed so long as they did not pose adverse visual or auditory impacts on visitors in other management areas. Interpretive exhibits and trail waysides would explain for visitors how this part of the landscape influenced the way the battle unfolded.

PEA RIDGE BATTLEGROUND ZONE

Management in this area would focus on retaining and enhancing the historic character of the landscape features that defined the 1862 Pea Ridge battlefield. Changes since the battle in land uses, transportation systems, the relationship between prairie, fields, and forests, combine to obscure the historic landscape and inhibit visitor understanding of the largest Civil War battle west of the Mississippi River. Maintaining open fields, reestablishing prairie and native species, clearing invasive exotic species, and restoring forest density to mirror that described in accounts of the battle would help enhance the integrity of the historic landscape. The information compiled in the park's archeological investigations, the Civil War Sites Advisory Commission's survey data, the historical base map prepared by NPS historian Edwin C. Bearss, and the park's vegetation management plan would provide the documentation for all actions related to landscape enhancement.

Desired Resource Condition

The battlefield landscape would be returned to its 1862 appearance to as great a degree as feasible, consistent with NPS policy on historic landscapes, including the *Secretary of the Interior's Standards for the Treatment of Historic Properties With Guidelines for the Treatment of Cultural Landscapes*.. The rural, agrarian setting for the Battle of Pea Ridge featured agricultural fields, orchards, open prairies, extensive wooded areas, and a modest network of roads and trails. These landscape characteristics helped define the way the battle unfolded; their representation is essential to visitor understanding of this pivotal battle. These resources would be managed to enhance their ability to support the interpretive and educational programs and to maintain their historical integrity.

Visitor Experience

Visitors in this area would gain a sense of the physical environment of the Pea Ridge battlefield as it appeared in 1862. Access to areas pivotal to the outcome of the battle and evocative interpretive programs would combine to immerse visitors in the history and significance of the Battle of Pea Ridge. Visitors could experience the park on their own, finding opportunities to reflect on the intense struggle that occurred on March 7 and 8, 1862. There would be a moderate probability of encountering park staff and a low to moderate probability of meeting other visitors in this area. This area could be

experienced via hiking and horseback riding on historic trails and traces. However, these uses would be monitored to ensure that it did not conflict with resource protection and visitors' ability to appreciate the historic landscape.

Appropriate Activities and Facilities

Activities such as horseback riding and hiking would be appropriate on historic trails and traces. The park staff would manage these activities to ensure that they were compatible with efforts to enhance the historic character of the landscape. Minimal development, including interpretive exhibits, could be located in this area.

EDUCATION AND INTERPRETATION ZONE

The Battle of Pea Ridge was a decisive turning point in the Civil War west of the Mississippi. The Union victory at Pea Ridge effectively dashed Confederate hopes for establishing control over the state of Missouri and freed up troops and resources for the more ambitious campaign to regain control of the Mississippi River. The battle's outcome inflamed a brutal guerilla war that inflicted misery on both soldiers and civilians in Missouri and Arkansas. However, the battle also inspired the erection of one of the first Civil War memorials created jointly by Union and Confederate veterans of Pea Ridge. Visitors in this area would have opportunities to learn about and gain an appreciation of the critical features of this fascinating and significant battle and the efforts of Pea Ridge veterans to commemorate the Battle of Pea Ridge and their comrades who were killed in combat.

This area would be managed so that visitors would have numerous opportunities to learn about and gain an appreciation of the critical features of this fascinating and significant battle via a variety of interpretive media.

Desired Resource Condition

Significant resources in this area could include artifacts related to the battle and elements of the park's battlefield landscape. These resources would be managed to maintain their historical integrity and ability to support the interpretive and educational programs.

Visitor Experience

Visitors would encounter an array of educational and interpretive media that would convey the events surrounding the battle, the historical context of the Civil War in the Trans-Mississippi west, and evocative first-hand accounts of the experiences of the combatants on both sides.

Activities and Facilities

Activities in this area could include auto touring, cycling, hiking, and horseback riding. Facilities could include interpretive media, outdoor exhibits, audio stations and auto tour CDs, roads, trails, and parking.

SENSITIVE RESOURCE ZONE

This area is dedicated to the protection of the remnants of the Union trenches above Little Sugar Creek. These are the only aboveground historic resources built by the Union Army remaining in the park boundaries. They are susceptible to the loss of their remaining physical integrity due to erosion, trampling, and deterioration from vegetative growth.

Desired Resource Condition

These resources would be preserved to minimize or prevent continued deterioration of these critical resources. Restoration of the trenches could occur if sufficient documentation was available to guide such an undertaking. Archeological investigations could provide additional data to guide resource restoration. Restoration efforts would be guided by the *Secretary of the Interior's Standards for the Treatment of Historic Properties* and NPS policy for treatment of cultural resources.

Visitor Experience

Visitor access to the trenches would be limited. Some visitor access to the trenches could be allowed if it did not pose a threat to resource integrity.

Activities and Facilities

No facilities would be developed in this area. Interpretive wayside exhibits explaining the trenches and the role they played in the Pea Ridge campaign would be in the adjacent management area. Activities would include visitor observation of the trenches.

VISITOR ORIENTATION AND ADMINISTRATION ZONE

Management in this area would focus on providing visitors with overall orientation to the park and also include space for park administration, maintenance, and emergency services.

Desired Resource Condition

Significant cultural resources in this area would be limited to battle-related artifacts. Natural resources in this area would be highly manipulated to accommodate park operations and visitor access.

Visitor Experience

Visitors would receive an overall orientation to the park, its resources, and the story of the Battle of Pea Ridge. There would be a high degree of visitor-to-staff and visitor-to-visitor interaction in this zone.

Activities and Facilities

Facilities in this area could include buildings and parking to accommodate park operations and administration and provide necessary visitor services, walkways for visitor access, and information signs and exhibits, and other interpretive media facilities.

ALTERNATIVE 1: NO ACTION

This alternative would continue the existing management direction for Pea Ridge National Military Park. Primary battlefield resources would be preserved. Limited rehabilitation or restoration would occur as knowledge of 1862 conditions and funds permitted. Interpretive media would remain essentially the same, although some minor modifications could be expected.

Alternative 1 would continue management direction established in the 1964 *Master Plan* and the 1983 *Visitor Use/ Development Plan*. Although there might be similarities between earlier management zones and management zones developed for this current process, the management prescriptions would not be applied to alternative 1. The zoning identified in the *Visitor Use / Development Plan* (NPS 1983) is included to represent how the park has been managed up to this point and would apply in the future under the no- action alternative.

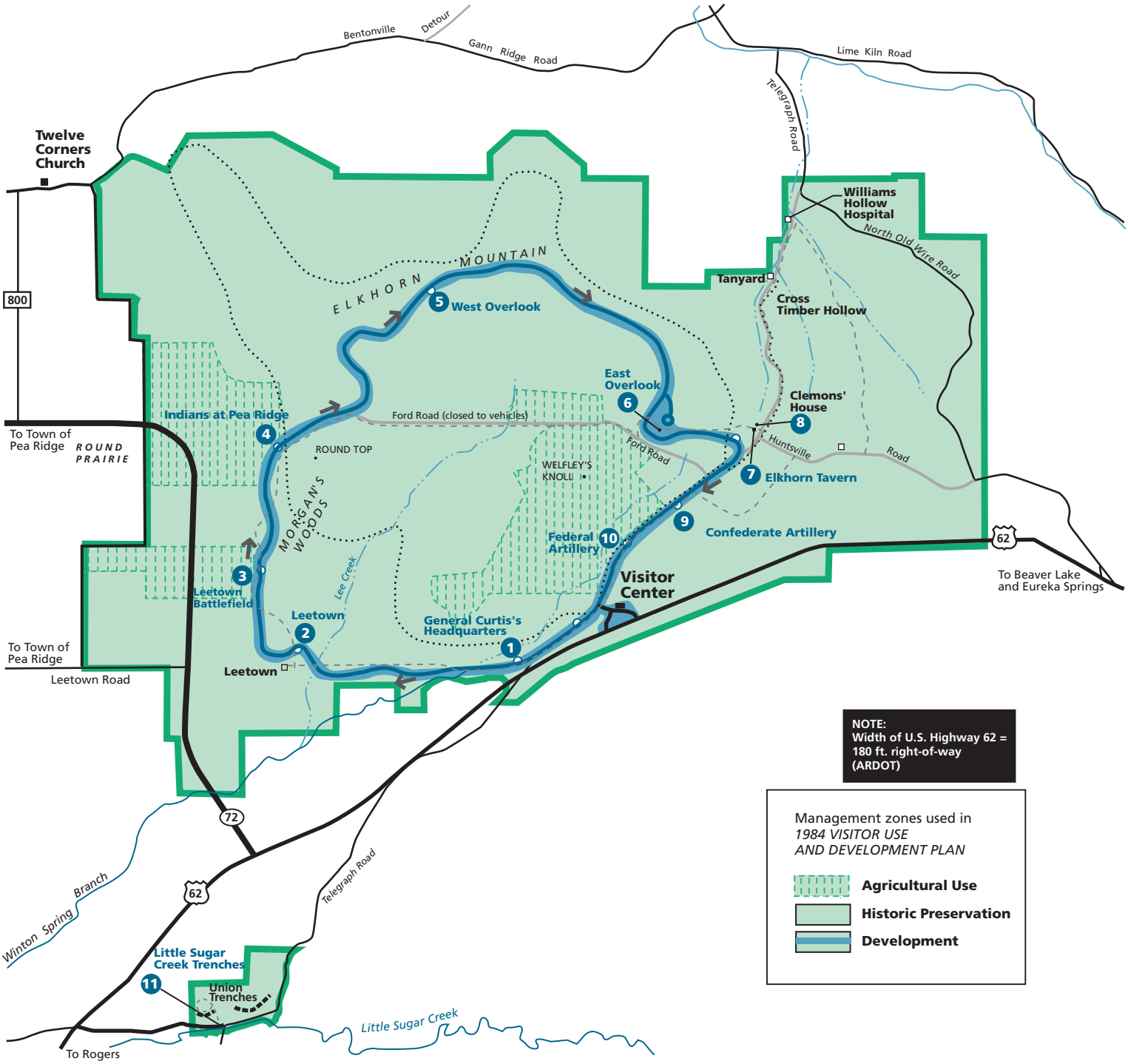
The 1983 *Visitor Use and Development Plan* defined three management zones for Pea Ridge National Military Park. The historic preservation zone was applied to most of the park. The development zone included all facilities and roads in the battlefield. The agricultural use zone applied to most of the open fields, corresponding with historic fields, to be maintained as open spaces (see the No Action - Management Zoning map). County, state, and federal roads were identified, but not zoned as distinct management areas.

The plan called for: remodeling of the visitor center and the movement of the administration function into the maintenance area; upgrades of the facilities at the Elkhorn Tavern; development of a new footpath to the Union trenches.

Visitors would continue to use a variety of methods to access the battlefield: automobile, tour bus, bicycle, on foot, or on horseback. They would explore the park independently using identified stops along the auto tour route. Special programs and demonstrations would be offered periodically at the Elkhorn Tavern. The visitor center would continue to offer information and orientation, interpretive exhibits, and a film.

The cultural landscape would be preserved with limited restoration treatments. Restoration, where feasible, would be based on accurate documentation of the historic condition at the time of the battle. Round Prairie (about 6 acres) would be restored to native vegetation. Fields that were cleared after the battle and subsequently abandoned (500 acres or 11% of the park) would be rehabilitated to woodland, consistent with the appearance of the 1862 landscape. Woodlands (75%) in the park would be managed to promote development of a mature oak-hickory forest. Agricultural fields (600 acres or 14% of the park) present at the time of the battle would be maintained in domestic hay to preserve the open characteristics. Management practices would be used to accelerate succession, manage species composition, and influence forest density in certain woodland areas (3,700 acres). Fenceline reestablishment would continue for the purpose of enhancing the setting for visitor understanding.

The visitor center would remain as is with no modifications to the existing functions.



NOTE:
Width of U.S. Highway 62 = 180 ft. right-of-way (ARDOT)

Management zones used in *1984 VISITOR USE AND DEVELOPMENT PLAN*

- Agricultural Use
- Historic Preservation
- Development

- Tour Stop
- Tour Road and Pullout
- Historic Road Trace (closed to vehicles)
- Hiking Trail
- Horse Trail
- Park Boundary
- Historic Preservation
- Development
- Agricultural Use
- Traffic flow on tour road

North

0 0.5 1 Mile

Alternative 1
No Action

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Historic traces would remain in their current condition with no effort to maintain their alignments, which are gradually being replaced by woodland in many cases. There would be no access to the Union trenches parcel other than the existing tour stop along the Sugar Creek road and trailhead.

The current system of roads would remain. The Arkansas Highway and Transportation Department has identified a need to increase the capacity of U.S. 62. The Park Service would work closely with the Arkansas Highway and Transportation Department and the Federal Highway Administration to balance the integrity and needs of the park with future capacity issues on U.S. 62.

The tour route would remain a one-way, single-lane road. Hiking and equestrian trails would be maintained where they are, unless resource degradation indicated a change would be necessary. Bicycling would continue on the tour route. Equestrian use would continue to be limited to the designated trail.

There would be no boundary adjustments.

ALTERNATIVE 2: IMMERSED IN THE FIELD OF BATTLE THROUGH DIRECT EXPERIENCES

This alternative would offer visitors a connection to the history of the Battle of Pea Ridge through a combination of interpretive programs and access to key areas of the historic battlefield. The interpretive program would focus on dramatic first-hand accounts of the battle. Visitors would have the opportunity to reflect on these stories as they venture into the sites that were critical to the outcome of the battle, following the footsteps of the civilians and soldiers who lived and fought here.

Under this alternative, approximately 40% of the park would be included in the Pea Ridge Battleground zone. Resources in this area would be managed in such a way as to retain and enhance the historic character of the Pea Ridge battlefield. The following areas would fall within this zone:

- **The Leetown Battlefield.** This area would extend west to the park boundary, north to the Ford Road, and east to the eastern slope of Round Top and Lee Creek. The site of Oberson's cornfield, Mayfield's cornfield, Lee's cornfield, Morgan's Woods and Sturdy's Farm would be included in this area.
- **Welfley's Knoll and the Elkhorn Tavern.** This area would extend west beyond the crest of Welfley's Knoll north and northeast of Ford Road across Elkhorn Mountain and the Tanyard Ravine to the site of the tanyard, east to Williams Hollow, and south to U.S. 62. The sites of the agricultural fields of G.W. Ford, Jesse Cox, Samuel Ruddick, and Rufus Clemons, and the Telegraph Road north to the site of the tanyard would be included in this area.
- **The Detached Area Near Little Sugar Creek.** This area includes the remnants of the Union entrenchments in park ownership.

As shown on the Alternative 2 map, the Union trenches would be included in the Sensitive Resource zone. This would provide the highest level of protection for these critical resources. The southern portion of the tour road, a segment of the reoriented tour road on Ford Road and the veterans' memorials west of Elkhorn Tavern would be included in the Education and Interpretation zone, where management would focus on enhancing the visitor experience through a variety of interpretive media. The area around the visitor center would be included in the Orientation and Administration zone. The remainder of the park would be included in the Arkansas Highlands zone. Management here would focus on enhancing the visitor experience by protecting the natural and historic features that helped influence the Battle of Pea Ridge.

The tour road would provide access to key battle areas. Visitors would take the tour road into the heart of the Leetown Battlefield, follow the historic Ford Road east to skirt the north edge of Welfley's Knoll, and return to the visitor center on the Telegraph Road from Elkhorn Tavern. To encourage visitors to immerse themselves in various locations and types of physical terrain on the battlefield, the tour road between the Elkhorn Tavern and the visitor center would remain one way except for special events in the tavern area. At various access points, interpretive media (wayside exhibits, maps, and trailhead orientation exhibits) would enhance the immersion experience, as

shown on the Alternative 2 map. The Elkhorn Mountain portion of the tour road would be closed and replaced by a new route following the historic Ford Road. The abandoned road corridor would be re-contoured to its original slope and allowed to return naturally to the landscape. New access to the east overlook would be developed from Ford Road. AR Highway 72 would be closed in order to enhance the historic character of the landscape. The North Old Wire Road would be closed and the abandoned road corridor would be re-contoured to its original slope and allowed to return naturally to the landscape.

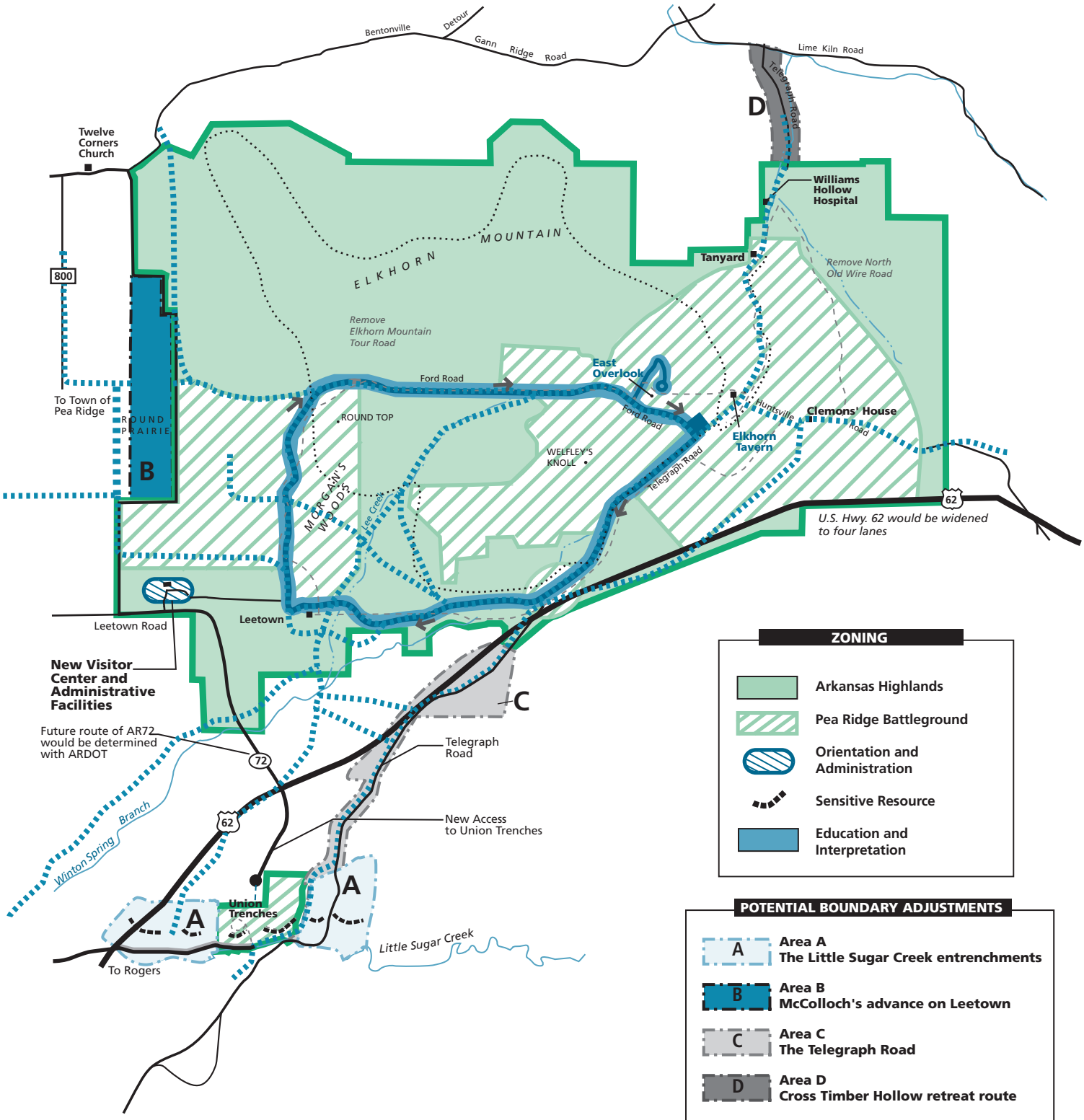
Beyond the immediate vicinity of the tour road, visitors would experience settings that would be familiar to the combatants in 1862. Natural and cultural resource conditions would be representative of the 1862 battlefield environment. Access to historic roads and trails would encourage visitors to explore the key battle areas on foot.

The interpretive services and facilities available at the visitor center and access points to key battle areas would focus on evoking the experiences of the combatants at Pea Ridge and the civilians who saw their lives turned upside down during those two bloody days in March, 1862.

Boundary Adjustments

Areas A, B, C, and D, identified in the "Boundary Adjustments" section in chapter 1 would be added to the park under this alternative. Area A would be included in the Sensitive Resource zone. Area B would be included in the Pea Ridge Battleground zone in order to maintain the historic qualities of this critical combat area. Area C would be included in the Education and Interpretation zone. Area D would be included in the Arkansas Highlands zone. This would help preserve the areas' rural qualities that are reminiscent of 1862 Arkansas.

Park management would cooperate with agencies and officials from Benton County and the cities of Bentonville, Rogers, and Pea Ridge in developing long-range regional plans. These planning efforts would focus on regional and park issues, addressing issues such as transportation development and suburban and commercial growth, particularly their impacts on the park. NPS managers would maintain communications with neighboring landowners and provide them with technical and management assistance to address issues of mutual interest. The National Park Service would work closely with local, state, and federal agencies whose programs were affected or would be affected by activities at Pea Ridge National Military Park.



ZONING

- Arkansas Highlands
- Pea Ridge Battleground
- Orientation and Administration
- Sensitive Resource
- Education and Interpretation

POTENTIAL BOUNDARY ADJUSTMENTS

- A — **Area A** The Little Sugar Creek entrenchments
- B — **Area B** McColloch's advance on Leetown
- C — **Area C** The Telegraph Road
- D — **Area D** Cross Timber Hollow retreat route

North

0 0.5 1 Mile

NOTE:
Width of U.S. Highway 62 = 180 ft. right-of-way (ARDOT)

- Tour Road
- Traffic Flow on Tour Road
- Park Boundary
- Historic Road Trace
- Hiking Trail
- Horse Trail

Alternative 2
Immersed in the Field of Battle

General Management Plan
Environmental Impact Statement

PEA RIDGE NATIONAL MILITARY PARK

United States Department of the Interior
National Park Service
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ALTERNATIVE 3: WINDOW INTO THE PAST THROUGH INTERPRETATION

This alternative would offer visitors opportunities to make connections to the history of the Battle of Pea Ridge through educational interpretive experiences at many locations on the battlefield. Natural and cultural resource conditions as viewed from the edge of key battle areas would provide visitors with an impression of the open space and woodlands at the time of the battle.

Under this alternative, approximately 95% of the park would be managed as Arkansas Highlands. This level of resource management would give visitors a general sense of the 1862 battlefield landscape as they view it from the periphery. The entire length of the tour road and the veterans' memorials west of Elkhorn Tavern would be zoned as Intensive Interpretation. As in alternative 2, the Union trenches would be included in the Sensitive Resource zone in order to provide the highest level of protection to these critical resources. Visitor orientation and contextual interpretation would occur at the visitor center. There would be no Pea Ridge Battleground zone in this alternative.

Visitor access to the park would occur via the tour road and a trail network. The Elkhorn Mountain portion of the tour road would be closed and replaced by the new route following the historic Ford Road.

The tour road would take visitors along the edge of key battle areas. These would include the western edge of the Leetown Battlefield, the north edge of Welfley's Knoll and adjacent agricultural fields via the Ford Road to the vicinity of Elkhorn Tavern, and then return to the visitor center on a new route east of Telegraph Road. New access to the east overlook would be developed from Ford Road. AR 72 would be relocated outside the park. The roadway remaining inside the park boundary would be used for internal park access.

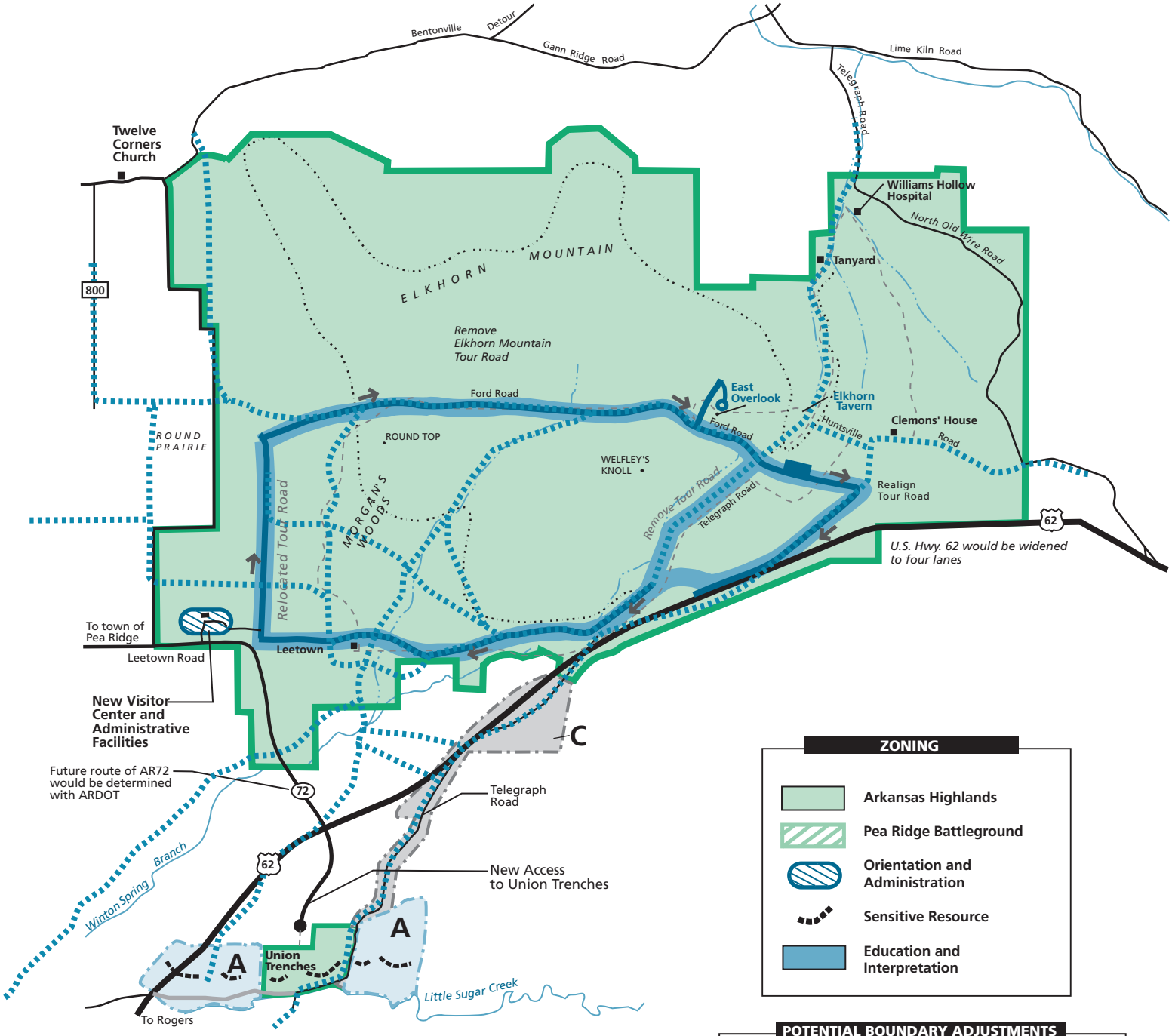
The interpretive approach would provide factual information about the battle, enabling visitors to understand and appreciate the political and social factors that characterized the Civil War in the West, strategic considerations that led up to the battle, the impact of the decisions and actions of individual leaders, and the historical consequences of the Pea Ridge Campaign. Interpretation would occur at the visitor center, along the tour road, and on a number of trails. Visitors would encounter frequent interpretive opportunities through a variety of media, including outdoor exhibit kiosks, wayside exhibits, audio programs, maps, trails, and a battlefield overlook. Opportunities to look into the battlefield from the tour road would supplement the interpretive experiences.

Boundary Adjustments

Under this alternative, Areas A and C would be added to the park. Most of Area A would be included in the Arkansas Highlands zone. The additional segments of the Union entrenchments in Area A would be included in the Resource Preservation zone. Area C would be added to the park and included in the Education and Interpretation zone.

Park management would cooperate with agencies and officials from Benton County and the cities of Bentonville, Rogers, and Pea Ridge in developing long-range regional plans. These planning efforts would focus on regional and park issues,

addressing issues such as transportation development and suburban and commercial growth, particularly their impacts on the park. NPS managers would maintain communication with neighboring landowners and provide them with technical and management assistance to address issues of mutual interest. The National Park Service would work closely with local, state, and federal agencies whose programs affect or are affected by activities at Pea Ridge National Military Park.



Alternative 3
Window into the Past

General Management Plan
Environmental Impact Statement
PEA RIDGE NATIONAL MILITARY PARK

United States Department of the Interior
National Park Service
DSC • 409 • 20,020 • Aug. 2005

ALTERNATIVE 4: EXPLORATION AND DISCOVERY (PREFERRED ALTERNATIVE)

This alternative would provide visitors with the opportunity to choose from the widest range of experiences. Visitors would have opportunities to immerse themselves in park resources associated with key battle areas and gain an understanding of the history of the Battle of Pea Ridge. Visitors would have many choices in the type, intensity, and duration of their experiences, guided by a variety of interpretive programs and media.

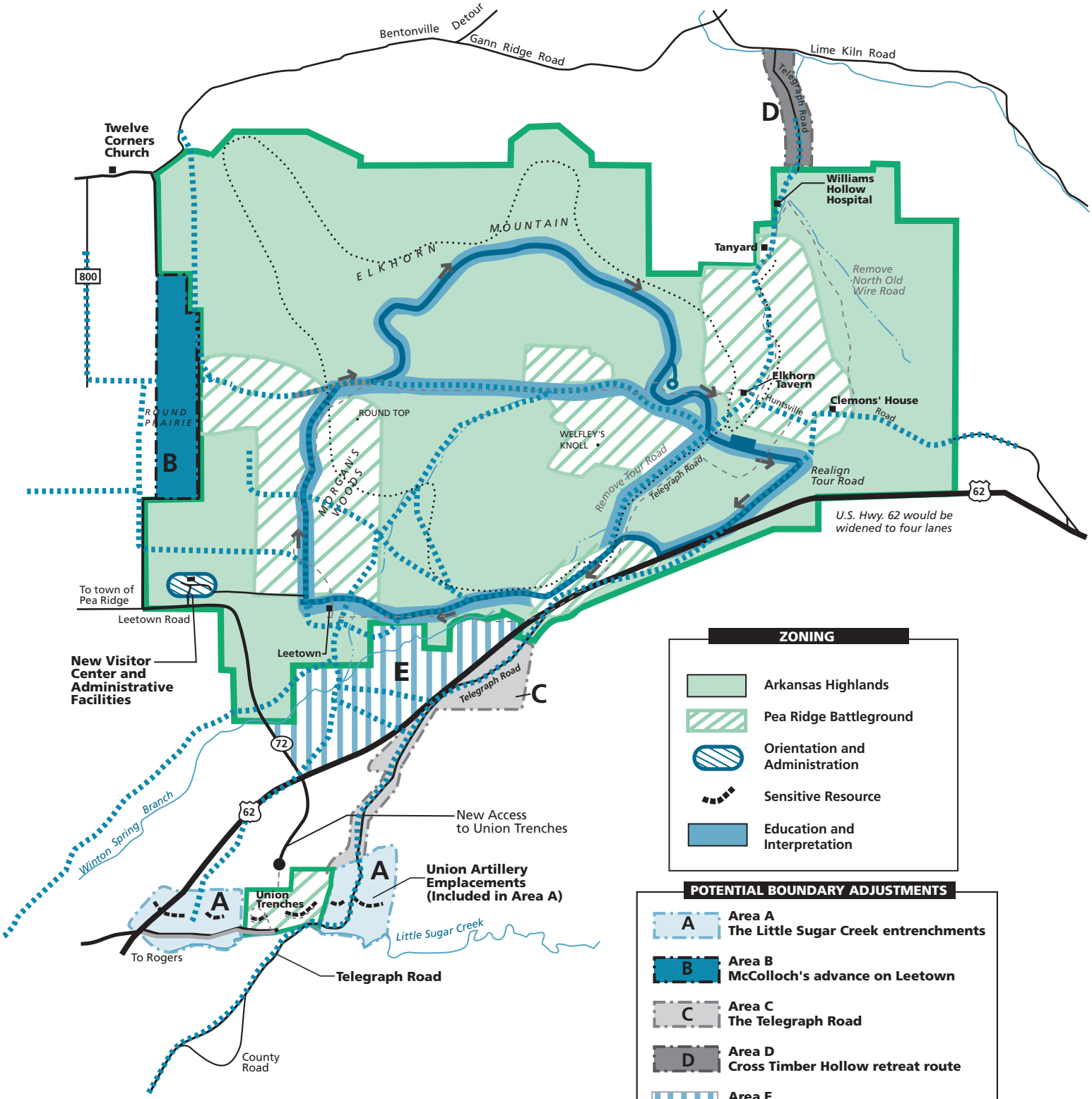
Under this alternative, about 25% of the park would be included in the Pea Ridge Battleground zone. The following areas would fall within this zone:

- **The Leetown Battlefield.** This would extend west into Oberson's cornfields, north to the Ford Road (including a portion of Sturdy's Farm), and east to the eastern slope of Round Top, including a large portion of Morgan's Woods.
- **Welfley's Knoll.** This would extend west to the crest of Welfley's knoll, north across the Ford Road to the lower slopes of Elkhorn Mountain, and east to the Telegraph Road and would include portions of the sites of G.W. Ford's cornfields and Jesse Cox's cornfields.
- **The Elkhorn Tavern.** This would include the Telegraph Road and Cross Timber Hollow, the site of the Clemons' House and a portion of Clemons' Field, and extend south just below the Huntsville Road
- **The Detached Area Around the Union Trenches Near Little Sugar Creek.** The tour road, the historic Ford Road, and the veterans' memorials west of Elkhorn Tavern would be included in the Education and Interpretation zone. Intensive interpretation would also be offered at many locations along the tour road, and on a few trails. The Union trenches would be included in the Sensitive Resource zone in order to provide the highest level of protection for these critical resources.

As shown on the Alternative 4 map, the tour road would provide access to the center of the Leetown Battlefield, follow the present route over Elkhorn Mountain; and return to the new visitor center in the southwestern corner of the park. The historic Ford Road would be rehabilitated to provide additional access to key battle areas. AR 72 would be relocated outside the park boundary in order to enhance the historic character of the landscape. The nonhistoric North Old Wire Road would be closed and the abandoned road corridor would be recontoured to its original slope and allowed to return naturally to the landscape.

Visitors would have opportunities to immerse themselves in key battle areas in the Leetown and Elkhorn Tavern battlefields, including Welfley's Knoll. In those areas, visitors would have contact with natural and cultural resources in conditions representing the 1862 battlefield. Other areas featuring interpretive media would provide views of the battlefield that convey the open space and woodlands present at the time of the battle.

Visitors would have opportunities for interpretive experiences with a variety of media, including outdoor exhibit kiosks, wayside exhibits, audio programs, maps, trails, and battlefield overlooks. Visitors would be provided with a mix of highly evocative experiences and informative, educational programs.



NOTE:
Width of U.S. Highway 62 = 180 ft. right-of-way (ARDOT)

Alternative 4 (Preferred Alternative)
Exploration & Discovery

PEA RIDGE NATIONAL MILITARY PARK
General Management Plan
Environmental Impact Statement

United States Department of the Interior
National Park Service

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Visitor orientation and contextual interpretation would occur in the visitor center. The remainder of the park would be included in the Arkansas Highlands area.

Boundary Adjustments

Under this alternative, Areas A, B, C, D, and E identified in the Boundary Adjustments would be added to the park under this alternative (See "Boundary Adjustment Map," p. 27). Most of Areas A and E would be included in the Arkansas Highlands zone. The additional segments of the Union entrenchments in Area A would be included in the Sensitive Resource zone. Area B would be included in the Pea Ridge Battleground zone in order to maintain the historic qualities of this critical combat area. Area C would be included in the Education and Interpretation zone. Area D would be included in the Arkansas Highlands zone. This would help preserve the areas' rural qualities that are reminiscent of 1862 Arkansas.

Park management would cooperate with agencies and officials from Benton County and the cities of Bentonville, Rogers and Pea Ridge in developing long-range regional plans. These planning efforts would focus on regional and park issues, addressing issues such as transportation development and suburban and commercial growth, particularly their impacts on the park. NPS managers would maintain communication with neighboring landowners and provide them with technical and management assistance to address issues of mutual interest. The Park Service would work closely with local, state, and federal agencies whose programs affect or are affected by activities at Pea Ridge National Military Park.

ACTIONS COMMON TO ALL ACTION ALTERNATIVES

U.S. HIGHWAY 62 EXPANSION

The Arkansas Department of Transportation (ARDOT) is evaluating design alternatives to expand U.S. 62) to four lanes. ARDOT's preferred alternative is to widen U.S. 62 in its current right-of-way through Pea Ridge NMP. Other alternatives include 1) keeping the current two-lane right-of-way inside the park and developing a new two-lane right-of-way outside the park boundaries; 2) abandon the existing right-of-way and develop a new four-lane right-of-way outside the park.

The National Park Service and the State Historic Preservation Office (SHPO) of the Arkansas Historic Preservation Program, Department of Arkansas Heritage, concur that the proposed widening of U.S. 62 in its current alignment poses the fewest adverse impacts on significant battle-related sites in and around Pea Ridge National Memorial Park. The Park Service and Arkansas SHPO have cooperated with the Arkansas Department of Transportation in evaluating potential impacts of this undertaking and identifying appropriate mitigation strategies.

It is proposed that the removal of the existing visitor center and the construction of new visitor, administrative, and maintenance facilities would mitigate the impacts on visitor access, safety, and the visitor experience resulting from the expansion of U.S. 62. Removal of these facilities from the battlefield landscape would also enhance the historic scene for visitors. The construction of the new facilities would be funded by ARDOT and the Federal Highways Administration. This would include development of the new access to the Union trenches. Recent archeological surveys indicate that the proposed location for new visitor and administrative facilities in the southwestern area of the park does not contain significant battle related resources.

ARKANSAS HIGHWAY 72

AR 72 would be rerouted outside the park boundaries. A portion of the existing right-of-way of AR 72 would provide access to the new visitor, administrative, and maintenance facilities.

NATIVE AMERICAN CONSULTATIONS

The National Park Service will continue consultation with Native American cultures traditionally associated with the park and its resources. The National Park Service will carefully consider the effects of actions on natural and cultural features that have traditional significance for these cultures.

ACCESS

Access to the Union trenches from U.S. 62 would be developed. The current parking area along Little Sugar Creek and the trail to the trenches would be closed.

PARK'S TRAIL SYSTEM

Additions to the park's trail system would be developed along the route's historic trails and traces wherever possible. The 1962 historical base map for Pea Ridge Military Park identifies the trails and traces that existed at the time of the battle. This data and the studies conducted by the Civil War Sites Advisory Commission would guide park staff in planning modifications and additions to the trail network.

The Arkansas SHPO and the NPS National Trails System are preparing a national historic landmark nomination for the portions of the Trail of Tears in the park boundary. Pea Ridge NMP would work with the NPS National Trails System and the Trail of Tears Association in developing protection strategies and expanded interpretive programs for those sections of the Trail of Tears in and around the park.

PARK MANAGEMENT ISSUES

Future park management issues relating to landscape treatment, transportation development, cooperative planning, and interpretive and educational programs, would incorporate the concepts outlined in "Holding the High Ground: Principles and Strategies for Managing and Interpreting Civil War Battlefield Landscapes" and the recommendations of the Civil War Sites Advisory Commission. This would include ongoing consultation and cooperation with the Arkansas State Historic Preservation Officer, the Advisory Council on Historic Preservation, and the NPS American Battlefields Protection Program.

ENVIRONMENTALLY PREFERABLE ALTERNATIVE

The environmentally preferable alternative is the alternative that best promotes the goals expressed in section 101 (b) of the National Environmental Policy Act. The environmentally preferred alternative is the alternative that would best

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

Alternative 4, the National Park Service's preferred alternative, is also the environmentally preferred alternative.

While all of the alternatives described in the plan fulfill equally the requirements of criteria 1, 2, and 6, alternative 4 best fulfills the requirements of criteria 3, 4, and 5.

As required by criteria 3, this alternative's focus on a cultural and natural resource management program that enhances a diversity of visitor experiences achieves the widest range of beneficial uses of the environment without undesirable or unintended consequences.

As required by criteria 4, alternative 4 also offers the greatest potential for preserving important historic, cultural, and natural resources of Pea Ridge National Military Park while maintaining an environment which supports and variety of individual choice. This alternative provides for a greater diversity of visitor experiences and choices than any of the other alternatives. Under alternatives 1 and 3 the rehabilitation or restoration of the battlefield landscape would be more limited than under alternative 4. Under alternatives 2 and 3, the visitor experience would be more limited than in the preferred alternative.

As required by criteria 5, alternative 4 achieves the best balance between population and resource use through the array of ways in which visitors can experience the park's resources and learn about its significance.

MITIGATIVE MEASURES

Under all alternatives, NPS staff would work to mitigate impacts arising from increases in visitation, development of additional access and trails, construction for parking, and increased suburban development and traffic outside the park boundaries. The Park Service has completed a transportation study focusing on internal transportation issues, as well as the growing regional highway infrastructure. The study recommends options to manage increasing numbers and diversity of users.

The park staff would work with the Arkansas State Historic Preservation Officer on management strategies for cultural resources, including minimizing adverse impacts resulting from visitor use. All mitigation measures would be undertaken in consultation with the Arkansas State Historic Preservation Officer and the Advisory Council on Historic Preservation. The park staff would continue to develop inventories for and oversee research about Pea Ridge's cultural resources. These resources would be managed according to federal regulations and NPS guidelines. Park management would restrict visitors in all instances where such use appears to adversely affect resources or conflicts with the park's purpose and significance. Archeological investigations and data recovery will be completed prior to construction to ensure that construction of new facilities does not affect the park's significant archeological resources. Every effort would be made to avoid known archeological sites. Completing the ongoing archeological surveys will assist park staff in avoiding impacts on these resources. The National Park Service and SHPO will consult on strategies for protecting, stabilizing, and treating critical park resources such as the Elkhorn Tavern, the Union entrenchments, archeological sites, and historic roads. All actions would be guided by *Director's Order 28, Cultural Resources Management Guideline,* the *Secretary of the Interior's Standards for the Treatment of Historic Properties* and other NPS and agency policy and regulations. Archeological data recovery will precede and be completed before physical intervention into any archeological resource, including sites associated with historic structures.

The National Park Service will also carefully consider the affects that NPS actions may have on ethnographic resources. The National Park Service will consult with traditional user groups, including the Cherokee, Choctaw, Chickasaw, Creek, Osage, and Delaware tribes to identify ethnographic resources and assess the potential impacts of planning proposals.

The Park Service would remove exotic species as necessary to return the park's battlefield landscape to its 1862 appearance; this includes the restoration of native plant habitat. Cultivating native species and managing to maintain selected exotic species would help provide screening from outside visual and auditory intrusions caused by development outside park boundaries. These measures would both contribute to effective cultural and natural resource preservation and enhance the visitor experience.

NPS staff would work with other land management agencies whenever possible to manage resources and ecosystems that encompass and affect Pea Ridge National Military Park. NPS staff would apply ecological principles to ensure that natural resources were maintained and not impaired. The staff would continue to inventory and monitor the park's natural

resources to avoid or minimize impacts resulting from future development. They would employ fire and other techniques, such as grazing and mechanical processes, to control exotic species, maintain and/or restore ecosystem integrity, and use integrated pest management procedures when necessary to control nonnative organisms or other pests. Habitats for threatened and endangered species would also be conserved and restored.

NPS staff would apply mitigation techniques to minimize the impacts of construction and other activities on park resources. Facilities would be built in previously disturbed areas or in carefully selected sites with as small a construction footprint as possible. To prevent soil erosion that degrades water quality, best management practices such as the use of soil retention structures and prompt revegetation would be applied to all disturbed construction sites. Sustainable practices that minimize short- and long-term environmental impacts of development, such as waste minimization and the use of energy efficient and ecologically responsible techniques and materials shall be used in all park actions.

Park managers would continue to regularly update the park's resource management plan to prioritize actions needed to protect, manage, and study park resources. Areas used by visitors would be monitored for signs of native vegetation disturbance, trampling, trail erosion, or the development of social trails. Appropriate management actions would be employed to minimize these conditions.

ALTERNATIVES CONSIDERED BUT ELIMINATED FROM FURTHER STUDY

Two alternatives considered during the process were determined not feasible. They are described below along with the reason for this determination.

TOTAL RESTORATION OF THE BATTLEFIELD

Concept

Under this alternative, the 1862 landscape would be completely restored in order to enhance the integrity of the battlefield. Modern features such as roads and buildings would be removed. Visitors would have access to the battlefield using the historic traces identified in the historic record. Visitor understanding would come from experiencing environmental conditions similar to those experienced by the combatants. The restored setting would evoke to some degree the hardships experienced by the combatants. Visitors could choose a guided experience using an historic conveyance such as period wagons, or investigating the battlefield on foot or by horseback.

All modern roads, the hiking trail, the equestrian trail, and the tour route would be removed. Historic traces would be restored to allow movement between sites within the battlefield. The historic conveyance system would follow certain historic traces. Visitors might use historic traces for hiking. Biking would not be permitted. Equestrian use would be limited to designated historic traces.

Rationale for Dismissal

This alternative would depend on a historic conveyance system to bring the majority of visitors to various sites at the battlefield. The transportation study conducted for the park indicates that visitation is too low for such a system and that even during peak visitation periods, the number of visitors served by such a system would not offset the expense and logistical effort to implement the concept.

This alternative would require the vast majority of visitors to expend a significant amount of personal effort and require a significant increase of the visitors' time, which would essentially make the park inaccessible for most people. Such an effect is not acceptable. Finally, this alternative would have required reconstruction of historic resources. NPS *Management Policies* discourage reconstruction all but exceptional cases. In this case, lack of comprehensive data would preclude reconstruction.

DEVELOP A TRANSIT SYSTEM IN THE PARK

Concept

Under this alternative, a transit system would circulate the battlefield to maximize visitor understanding of the ebb and flow of the battle and remove cars from the battlefield. Transit vehicles would provide the only mechanized access to the battlefield. Nonhistoric structures would be relocated to nonbattle areas. Visitors would be offered guided or assisted interpretation while using the transit system. They would be encouraged to explore at sites along the tour route and would be provided interpretation through waysides or printed matter.

Rationale for Dismissal

This alternative also made the primary mode of access a transportation system provided by the National Park Service. Visitation is not at a level that would justify

the expense of developing a transit system to serve the visitor. During peak visitation periods, the number of visitors served by such a system would not offset the expense and logistical effort to implement the concept. At other times of the year, the system would be idle. Should visitation increase to the point where the resources or the visitor experience was degraded to an unacceptable level, this concept would be reconsidered.

SUMMARY OF COST ESTIMATES

The cost estimates for this plan are based on the actions described below and reflected in table 2. The estimates are general and should be used only for comparing alternatives in the plan.

ALTERNATIVE 2

- removal of approximately 1¾ miles of the tour road over Elkhorn Mountain
- removal of North Old Wire Rd.
- rehabilitation of approximately 3.5 miles of the historic Telegraph Rd.
- removal of approximately 1 mile of AR 72
- paving the historic Ford Rd.
- the development of new access to the Union trenches from U.S. 62
- Construction of the new visitor and administrative facilities

ALTERNATIVE 3

- removal of approximately 1¾ miles of the tour road over Elkhorn Mountain
- realignment of the park tour road
- rehabilitation of approximately 4 miles of the historic Telegraph Rd.
- removal of approximately ½-mile of AR 72
- paving the historic Ford Rd.
- the development of new access to the Union trenches from U.S. 62
- Construction of the new visitor and administrative facilities

ALTERNATIVE 4

- removal of North Old Wire Rd.
- removal of approximately 1 mile of AR 72
- rehabilitation of approximately 4 miles of the historic Telegraph Rd.
- realignment of the park tour road
- rehabilitation of the historic Ford Rd.
- the development of new access to the Union trenches from U.S. 62
- Construct new visitor and administrative facilities

The estimates for alternatives 2, 3, and 4 do not include the costs for the acquisition of lands identified in the boundary assessment.

TABLE 2: COST ESTIMATES

ACTION	ALTERNATIVE 1	ALTERNATIVE 2	ALTERNATIVE 3	ALTERNATIVE 4
Initial Costs				
Remove Elk Mtn. Rd.		$325,000	$325,000	
Remove tour rd. sec.			$185,000	
Pave new tour rd. sec.			$900,000	$900,000
New access to Union trenches from U.S. 62		$650,000	$650,000	$650,000
Telegraph Road Rehabilitation	N/A		$93,000	$93,000
Telegraph Road Restoration		$210,000	$210,000	$240,000
Ford Road Rehabilitation	N/A			$210,000
Removal of N. Old Wire Road	N/A	$115,000	$0	$115,000
Pave Ford Road	N/A	$1,600,000	$1,600,000	$0
Total Initial Costs		$2,900,000	$3,999,000	$2,208,000
New visitor center		$7,100,000	$7,100,000	$7,100,000
Annual Costs				
Maintenance	$1,311,028	$2,039,377	$1,340,162	$1,748,037
Operations	$6,759,078	$6,759,078	$10,138,617	$8,157,508
Total Annual Costs (Present Worth)	$8,070,106	$8,798,455	$11,478,779	$9,905,546
Total Life Cycle Costs (Annualized)	$692,500	$1,613,105	$1,936,896	$1,648,724

TABLE 3: SUMMARY OF ALTERNATIVES

Alternative 1: No Action	Alternative 2: Immersed in the Field of Battle	Alternative 3: Window into the Past through Interpretation	Alternative 4: Pea Ridge Exploration and Discovery (Preferred Alternative)
Concept/Visitor Experience			
Primary battlefield resources would be preserved. Landscape rehabilitation or restoration would be limited. Interpretive media would remain essentially the same, although some minor modifications could be expected. The current visitor experience would remain unchanged.	Resources would be managed to maintain the historic character of the battlefield landscape and provide visitors with a connection to the history of the Battle of Pea Ridge.	Visitors would be offered opportunities to make personal connections to the history of the Battle of Pea Ridge through educational and informative interpretive experiences at many locations on the battlefield. Visitors would view the battlefield landscape from the tour road.	Visitors would have the widest range of experiences and could choose the type, intensity, and duration of their experiences, guided by a variety of interpretive programs.
Management Zones			
The management zones would not be applied under Alternative 1. The cultural landscape would be preserved or restored according to the 1964 *Master Plan*.	Pea Ridge Battleground Zone (40% of the park) • the Leetown Battlefield • Welfley's Knoll and the Elkhorn Tavern Battle area • The detached area around the Union trenches Sensitive Resource Zone • The Union trenches Orientation and Administration Zone • The visitor center, parking, and adjacent areas Education and Interpretation Zone • The southern portion of the tour road • A segment of the Ford Road included in the tour road • Veterans' Commemorative Memorial Arkansas Highlands Zone • The remainder of the park	Pea Ridge Battleground Zone • None of the park would be managed as Pea Ridge Battleground Zone Sensitive Resource Zone • The Union trenches Orientation and Administration Zone • The visitor center, parking, and adjacent areas Education and Interpretation Zone • The southern portion of the tour road • A segment of the Ford Road included in the tour road • Veterans' Commemorative Memorial Arkansas Highlands Zone • The remainder of the park	Pea Ridge Battleground Zone (25% of the park) • the Leetown Battlefield • A portion of Welfley's Knoll • The Elkhorn Tavern and some adjacent areas • The detached area around the Union trenches Sensitive Resource Zone • The Union trenches Orientation and Administration Zone • The visitor center, parking, and adjacent areas Education and Interpretation Zone • The southern portion of the tour road • Veterans' Commemorative Memorial Arkansas Highlands Zone • The remainder of the park
Trails			
Historic traces would remain in their current condition with no effort to maintain their alignments, which are gradually being replaced by woodland**.** Hiking and horse trails would remain where they are.	The hiking and equestrian trails would be realigned wherever possible to follow historic roads and traces. Biking would be limited to the tour route.	The hiking and equestrian trails would be realigned to follow historic trails and traces. Biking would be limited to the tour road.	The hiking and equestrian trails would be realigned to follow historic trails and traces. Biking would be limited to the tour road.
Union Trenches			
There would be no new access to the Union trenches from U.S. 62. The existing parking area and trail from Sugar Creek Road would remain.	New access to the Union trenches would be developed from U.S. 62. A small parking area would be provided. The current parking and trail on Sugar Creek Road would be removed.	New access to the Union trenches would be developed from U.S. 62. A parking area appropriate for a limited number of vehicles would be provided. The current parking and trail on Sugar Creek Road would be removed.	New access to the Union trenches would be developed from U.S. 62. A parking area appropriate for a limited number of vehicles would be provided. The current parking and trail on Sugar Creek Road would be removed.
Visitor Facilities			
The visitor center and maintenance facility would remain without modification of the visitor center landscape. Administrative functions would remain in the former park housing. There would be no further modification.	The existing visitor center and administrative and maintenance facilities would be removed. A new visitor center and administrative and maintenance facilities would be constructed on a site in the southwest corner of the park.	The existing visitor center and administrative and maintenance facilities would be removed. A new visitor center and administrative and maintenance facilities would be constructed on a site in the southwest corner of the park.	The existing visitor center and administrative and maintenance facilities would be removed. A new visitor center and administrative and maintenance facilities would be constructed on a site in the southwest corner of the park.

Alternative 1: No Action	Alternative 2: Immersed in the Field of Battle	Alternative 3: Window into the Past through Interpretation	Alternative 4: Pea Ridge Exploration and Discovery (Preferred Alternative)
Access/Tour Route and Public Roads			
The current system of roads would remain. The NPS would work closely with the Arkansas Highway and Transportation Department and the Federal Highway Administration to reconcile the needs of the park with future expansion of U.S. 62. The tour route would remain a one-way, single-lane road.	AR 72 would be rerouted outside the park boundaries. A portion of AR 72 would be retained to provide access to the new park visitor, administrative, and maintenance facilities. The tour road would be realigned to incorporate the historic Ford Road. The portion of the tour route over Elkhorn Mountain would be removed and the landscape restored. The North Old Wire Road would be removed. U.S. 62 would be expanded to four lanes in its existing right-of-way.	AR 72 would be relocated outside the park boundaries. A portion of AR 72 would be retained to provide access to the new park visitor, administrative, and maintenance facilities and another portion of the former roadway would be incurporated as part of the tour road. The remainder would be removed. A new route from the visitor center to the Elkhorn Tavern would be developed to remove vehicle traffic from the Telegraph Road, which would be rehabilitated. The Ford Road would be incorporated into the tour route. The North Old Wire Road would remain to continue park access. U.S. 62 would be expanded to four lanes in its existing right-of-way.	AR 72 would be rerouted outside the park boundaries. A portion of AR 72 would be retained to provide access to the new park visitor, administrative, and maintenance facilities. Ford Road would be rehabilitated to provide additional access. The portion of the tour route over Elkhorn Mountain would be retained to provide additional access to the park. The North Old Wire Road would be removed. U.S. 62 would be expanded to four lanes in its existing right-of-way.
East Overlook			
East Overlook would be accessed using Elkhorn Mountain Road.	New access to the east overlook (from Ford Road) would be developed due to closure of tour road over Elkhorn Mountain.	New access to the east overlook (from Ford Road) would be developed due to closure of tour road over Elkhorn Mountain.	The east overlook would be accessible from the existing tour road.
Boundary Adjustments			
There would be no boundary adjustments.	Areas A, B, C, and D would be added to the park.	Areas A and C would be added to the park boundaries.	Areas A, B, C, D, and E would be added to the park boundaries.

TABLE 4: SUMMARY OF IMPACTS

	No Action	Alternative 2	Alternative 3	Alternative 4: Preferred Alternative
Archeological Resources	Minor, long-term, adverse impacts on archeological resources. **Cumulative Impacts.** Minor, long-term, adverse contribution to cumulative impacts.	Negligible to minor, long-term, adverse impacts on archeological resources. **Cumulative Impacts.** Minor, long-term, adverse cumulative impacts.	Minor, long-term, beneficial impacts on archeological resources. **Cumulative Impacts.** Negligible to minor adverse cumulative impacts.	Negligible to minor, long-term, beneficial impact on archeological resources. **Cumulative Impacts.** Minor, long-term, adverse cumulative impacts.
Cultural Landscapes	Minor, long-term, beneficial impact on the park's cultural landscape. **Cumulative Impacts.** Minor, long-term, beneficial contribution to cumulative impacts.	Moderate, long-term, beneficial impact on the cultural landscape. **Cumulative Impacts.** Moderate, long-term beneficial cumulative impacts.	Minor, long-term, beneficial impact on the cultural landscape. **Cumulative Impacts.** Minor, long-term adverse cumulative impacts.	Minor to moderate, long-term, beneficial impact on the cultural landscape. **Cumulative Impacts.** Minor, long-term beneficial cumulative impacts.
Ethnographic Resources	Minor long term beneficial impacts on ethnographic resources. **Cumulative Impacts.** Short and long-term minor beneficial impacts.	Minor long term beneficial impacts on ethnographic resources. **Cumulative Impacts.** Short and long-term minor beneficial impacts.	Minor long term beneficial impacts on ethnographic resources. **Cumulative Impacts.** Short and long-term minor beneficial impacts.	Minor long term beneficial impacts on ethnographic resources. **Cumulative Impacts.** Short and long-term minor beneficial impacts.
Historic Sites and Structures	Minor, long-term, beneficial impacts on historic sites and structures. **Cumulative Impacts.** Minor, long-term, beneficial contribution to cumulative impacts.	Minor to moderate, long-term, beneficial impact on historic sites, structures, and (site-specific) collections. **Cumulative Impacts.** Minor, long-term beneficial cumulative impacts.	Minor, long-term, beneficial impact on historic sites, structures, and (site-specific) collections. **Cumulative Impacts.** Minor, long-term, adverse cumulative impacts.	Minor to moderate, long-term, beneficial impacts on historic sites, structures, and (site-specific) collections. **Cumulative Impacts.** Negligible, long-term beneficial cumulative impacts.
Museum Collections	Minor, long term adverse impacts on collections. **Cumulative Impacts.** No cumulative impacts.	Minor, long term beneficial impacts on collections. **Cumulative Impacts.** No cumulative impacts.	Minor, long term beneficial impacts on collections. **Cumulative Impacts.** No cumulative impacts.	Minor, long term beneficial impacts on collections. **Cumulative Impacts.** No cumulative impacts.
Special Status Species	Negligible to minor, long-term, beneficial impacts on Special Status Species **Cumulative Impacts.** Minor, long-term, adverse cumulative impacts.	Moderate, long-term, beneficial impact on special status species. **Cumulative Impacts.** Negligible, long-term beneficial cumulative impacts.	Minor, long-term beneficial impact on special status species. **Cumulative Impacts.** Negligible, long-term beneficial cumulative impacts.	Minor to moderate, long-term, beneficial impacts on special status species. **Cumulative Impacts.** Negligible, beneficial cumulative impacts.
Plant Communities	Minor, long-term, beneficial impacts plant communities. **Cumulative Impacts.** Minor, long-term adverse cumulative impacts.	Minor, long-term, beneficial impact on plant communities. **Cumulative Impacts.** Minor, long-term beneficial cumulative impacts.	Moderate, beneficial impacts on plant communities. **Cumulative Impacts.** Minor, long-term, beneficial cumulative impacts.	Minor to moderate, long-term, beneficial impacts on plant communities. **Cumulative Impacts.** Minor, long-term, adverse cumulative impacts.
VISITOR EXPERIENCE	Minor, long-term, beneficial impact on the visitor experiences. **Cumulative Impacts.** Negligible to minor, long-term beneficial cumulative impacts.	Minor to moderate to major, long-term beneficial impact on the visitor experience. **Cumulative Impacts.** Minor to moderate, long-term beneficial cumulative impacts.	Minor to moderate, long-term, beneficial impact on the visitor experience. **Cumulative Impact.** Minor, long-term, beneficial cumulative impacts.	Moderate to major, long-term, beneficial impact on the visitor experience. **Cumulative Impacts.** Minor, long-term, beneficial cumulative impacts.
Park Operations	Minor, long-term, adverse effects on park operations. **Cumulative Impacts.** Minor, long-term adverse cumulative impacts.	Moderate beneficial impact on park operations. **Cumulative Impacts.** Minor to moderate, long-term beneficial cumulative impacts.	Minor, long-term, beneficial impact on park operations. **Cumulative Impacts.** Negligible, long-term, beneficial contribution to cumulative impacts.	Minor to moderate, long-term, beneficial impact on park operations. Cumulative Impacts. Negligible to minor, long-term beneficial cumulative impacts.
Access and Circulation	Negligible, long-term, adverse impacts on access and circulation. **Cumulative Impacts.** Minor to moderate, long-term, adverse cumulative impacts.	Minor to moderate, long-term beneficial impact on access and circulation. **Cumulative Impacts.** Minor, long-term beneficial cumulative impacts.	Moderate, long-term, beneficial impact on park access and circulation. **Cumulative Impacts.** Minor, long-term, beneficial cumulative impacts.	Moderate to major, long-term, beneficial impact on access and circulation. **Cumulative Impacts.** Minor, long-term, beneficial cumulative impacts.

Affected Environment

CULTURAL RESOURCES

Pea Ridge National Military Park preserves the site of the Civil War Battle of Pea Ridge. On March 7 and 8, 1862, an outnumbered Union Army of 10,500 men led by Brig. Gen. Samuel R. Curtis defeated 16,000 Confederate and Missouri State Guard troops commanded by Maj. Gen. Earl Van Dorn.

Pea Ridge National Military Park provides visitors with an array of opportunities and experiences to enhance their understanding of the battlefield significance and the battle's role in the Civil War west of the Mississippi River. The visitor center museum exhibits battle-related exhibits and features a 28-minute video that provides the historic context for events leading up to, through, and after the battle.

This chapter describes the park's affected environment, which are those park resources that will be affected by the actions outlined in the general management plan. It focuses on the current condition of the impact topic resources identified in chapter 1. These topics are archeological resources, ethnographic resources, cultural landscapes, historic sites and structures, museum collections, special status species, plant communities, wetlands, visitor experience, park operations, and access and circulation.

ARCHEOLOGICAL RESOURCES

Pea Ridge National Military Park is in the archeologically rich Ozark Plateau. Numerous sites in the area date human use and occupation to at least 10,000 years ago. Native American occupation continued until the early 19th century when white settlement began to occur in earnest.

The park has numerous archeological sites, some of which pre-date European contact.

The National Park Service is currently conducting a multiyear archeological survey of the park. Archeological sites will be nominated for listing in the National Register of Historic Places, as appropriate. Pea Ridge is one of the parks participating in a multiyear, system wide archeological inventory program.

Field investigations conducted in 2001, 2002, and 2003 by the Midwest Archeological Center and the University of Arkansas' Department of Anthropology have yielded abundant evidence of prehistoric and historic occupation of the site. Evidence of the battle is abundant in the area of Clemons' Field and around Elkhorn Tavern. Patterned deposition of small arms and larger ordnance is particularly abundant in these areas. Broken bits of firearms, accouterments, and camp and personal items are also present.

The park's archeological resources are valuable both as physical evidence of the battle and their importance in interpretation and enhancing visitor understanding of the battle.

ETHNOGRAPHIC RESOURCES

Pea Ridge National Military Park includes ethnographic resources related to cultures and peoples traditionally associated with the battlefield landscape. Ethnographic resources are the cultural and natural features of a park that are of traditional significance to traditionally associated peoples or cultures. Native American peoples have long been associated with the Pea Ridge landscape. Troops from a

number of Native American tribes, including the Cherokee, Choctaw, Chickasaw, Creek, and possibly the Delaware served with the Confederate Army at the Battle of Pea Ridge. Members of the Cherokee, Choctaw, Chickasaw, and Creek tribes passed through what is now Pea Ridge NMP on the Telegraph Road during their forces removal from the southeast United States to Indian Territory.

CULTURAL LANDSCAPES

The park's 4,300 acres encompass about 90% of the actual battlefield. At the time of the battle, the area was a thriving agricultural setting that included the small community of Leetown and several farms and homes. Although the park is listed on the National Register of Historic Places, no evaluation has been made to meet more recent standards for determining if there is sufficient integrity for the landscape features to contribute to the eligibility of the property. No cultural landscape report, outside of the research conducted by NPS historian Edwin C. Bearss in 1957 and 1962, has been completed for the park. This research identified the locations of buildings, fencelines, agricultural fields, orchards, roads, lanes, prairies, streams, lots, types of vegetation, and crops. Only a few physical remnants of this agricultural community remain.

The landscape today reflects some of the features of the historic landscape as it appeared in March of 1862. Open fields, lines of split-rail fences, and the Elkhorn Tavern convey some sense of Pea Ridge as the combatants saw it. Major landscape features include the following:

- **The Elkhorn Tavern.** The tavern withstood the heavy combat that swirled around it, but was burned in 1863 by Confederate guerillas. The tavern was rebuilt on its original foundations around 1865. This structure was later razed. The current structure is a 1963 National Park Service reconstruction based on a photograph of the earliest known photo of the postwar building ca. 1870.

- **The Union Army Earthworks.** General Samuel Curtis' originally planned to force the Confederate Army to attack his entrenched army above Little Sugar Creek, about two miles southwest of the park. General Van Dorn's night march around Curtis' flank forced the Union troops to abandon their trenches. The earthworks are the only original structures in the park that date from the time of the battle.

- **Historic Roads.** The Telegraph Road was built to facilitate transportation and communication between St. Louis, Springfield, and Fort Smith, Arkansas, including the Fort Gibson Indian Reservation. The Telegraph Road later became part of the "Trail of Tears" taken by Cherokees in their forced relocation to what is now Oklahoma. Both Union and Confederate troops used this road during the war. About 2 ½ miles of the Telegraph Road are within the park boundaries. Other historic road traces within the park boundaries include the Ford Road, the Leetown Road, the Winton Springs Road, and the Huntsville Road.

- **Split-rail Fences.** Ten miles of reconstructed split rail fences delineate some of the agricultural fields present at the time of the battle.

- **Pratt's Store Foundation.** Pratt's store was one of the most significant structures on the Pea Ridge battlefield.

It was located at the intersection of the Telegraph Road and the roads leading to Huntsville and Leetown. General Curtis' headquarters was located at this crossroads, opposite the store. It is possible that the foundation at this location is the original foundation of the store.

- **The Park Tour Road.** This 7-mile paved road includes 10 stops that interpret pivotal moments during the battle. The park tour road in some instances was built on historic roads, including the Telegraph Road.

- **The West Overlook**. This overlook provides visitors with a broad panorama of the region in which this campaign took place.

- **The East Overlook**. This position provides visitors with the best overall view of the battlefield.

- **The Commemorative Markers**. Union and Confederate veterans of the Battle of Pea Ridge placed these commemorative markers near the Elkhorn Tavern.

Other landscape features at the park include the 11-mile equestrian trail, a 10-mile hiking trail, and stonewalls along portions of the tour road and at some of the interpretive waysides that were installed sometime after the construction of the tour road in 1962.

In accordance with the original park *Master Plan*, approximately 600 acres of the park landscape has been restored to its 1862 appearance. The park's cultural landscape is potentially eligible for inclusion on the National Register of Historic Places. A cultural landscape report has not been completed for the park.

HISTORIC SITES AND STRUCTURES

Pea Ridge National Military Park is listed on the National Register of Historic Places. Specific structures and sites related to the 1862 battle are also listed and include the following:

Structures
- Elkhorn Tavern
- Union Army earthworks
- Commemorative markers

Sites
- Elkhorn Tavern
- Elkhorn battlefield
- Leetown battlefield
- Telegraph Road
- Pratt's store foundations

MUSEUM COLLECTIONS

The national register listing for the park includes over 4,700 objects related to the battle. These objects include historic artifacts and archeological objects.

SPECIAL STATUS SPECIES

The National Park Service consulted with the U.S. Fish and Wildlife Service and the Arkansas Natural Heritage Commission to obtain current lists of Special Status Species that could occur in the park. The U.S. Fish and Wildlife Service identified one threatened and three endangered species that could occur in the park (see table 5).

TABLE 5: THREATENED AND ENDANGERED SPECIES

Common Name	Scientific Name	Status
Ozark cavefish	*Amblyopsis rosae*	Threatened
Cave crayfish	*Cambarus aculabrum*	Endangered
Gray bat	*Myotis grisescens*	Endangered
Indiana bat	*Myotis sodalist*	Endangered

The cave crayfish (*Cambarus aculabrum*) and Ozark cavefish (*Amblyopsis rosae*) require karst streams with pools. There are no known karst streams in the park. The gray bat (*Myotis grisescens*) requires well-developed caves providing specific temperatures for roosting, hibernacula, and maternity. The Indiana bat (*Myotis sodalis*) typically uses limestone caves with midwinter temperatures between 37 and 43 degrees Fahrenheit for hibernation. Hibernating colonies of the Indiana bat disperse in late March and most migrate to more northern habitat for the summer.

The Arkansas Natural Heritage Commission conducted a survey of the park for plants of special concern 2001(ANHC 2001). That survey identified two occurrences of the Ozark chinquapin, a member of the chestnut family, the lobed spleenwort (*Asplenium pinnatifidum*), and Ashe's juniper (*Juniperus ashei*). Although none of these species are considered endangered or threatened by the state, they are uncommon or have conservation concerns. Ozark chinquapin is affected by the chestnut blight. Most of these trees persist as stump sprouts with few producing fruit. Ash's juniper and the lobed spleenwort are on the periphery of their ranges in Arkansas. A single specimen of Kentucky spleenwort (*Aspenium X kentuckiense*) was recorded in the park in 1943. It is the exceedingly rare hybrid of *A. pinnatifidum* and *A. platyneuron*. The plant was not found in the 2001 survey. Both progenitors occur in the park and it is possible that the plant grows in the park. There are no state wildlife or fish special status species in the park.

NPS policy directs that all species listed as threatened or endangered be identified and protected, and that listed species that are native to a park unit be recovered. Policy also directs the Park Service to inventory, monitor, and manage state and locally listed special status species in a manner similar to the treatment afforded federally listed threatened and endangered species.

The identified species and their habitat requirements were reviewed to determine the presence of threatened or endangered species. There are no suitable cave habitats for the four federally listed threatened or endangered species. In earlier surveys the Ozark chinquapin was found growing in the park.

PLANT COMMUNITIES

The park is on the Springfield Plateau, which is a component of the larger Ozark Plateau. Rolling hills, narrow hollows, and broad uplands define the landscape. The predominant climax vegetation type is oak-hickory forest. Historic documentation describes much of the landscape as wooded except for the Round Prairie area and areas cleared for cultivation. Climax vegetation communities include post oak/blackjack oak, black oak, mixed oak (white oak, black oak, and post oak), and white oak. Disturbed sites are forested by eastern red cedar.

Pea Ridge was the home of an agricultural community during the Civil War. After the war agriculture expanded, resulting in additional clearing. Since the park was established, cleared land, other than that in agricultural use at the time of the battle has been allowed to revert to woodland. Fire, a natural element influencing the landscape, decreased in frequency, a direct result of the policy of suppression. Fire reduces the frequency of shade tolerant species and maintains the oak-hickory composition.

Vegetation at Pea Ridge National Military Park is a mosaic of second growth oak-hickory forest with some mature oak-hickory interspersed, and woodland, prairie plantings, and fescue fields with numerous nonnative species intermixed. Each vegetation type exhibits various stages of succession. Composition and density vary in accordance with historic and current use patterns or fire frequency and suppression. Some areas have a high density of red cedar, a manifestation of succession from open field or open woodland without the benefit of fire to control this plant. Some of these areas were cleared after the battle but reverted to forest when agricultural use ended. Fields cultivated at the time of the battle have been maintained by planting with domestic grasses for agricultural purposes.

The Park Service has initiated a vegetation management program for Pea Ridge. The program includes management treatments such as prescribed fire and the use of herbicides to accelerate succession and manage plant community structure and composition.

WETLANDS

There are limited surface water sources within Pea Ridge National Military Park. There are several streams that originate in the park, and a number of stock ponds, which are remnants from agricultural practices prior to park establishment. The actions considered in the alternatives would have a negligible effect on surface or ground water within the park.

However, there is the potential that former and potential wetlands may be found in the Leetown area. If historic drainage patterns are restored as a result of implementation of the management zones, these wetlands could be restored. This would impact approximately 100 acres in the park.

VISITOR EXPERIENCE

Pea Ridge National Military Park provides visitors with opportunities that enhance their understanding of the Battle of Pea Ridge and its pivotal role in the Civil War west of the Mississippi River.

The primary visitor experience at Pea Ridge is centered on the auto tour of the battlefield. The visitor center provides park visitors with an orientation to the park, an opportunity to view a video about the battle and the Civil War west of the Mississippi, an opportunity to talk with an interpretive ranger, view exhibits about the battle, and purchase Civil War-related literature.

Guided by the park brochure, visitors can follow the 7-mile tour route and pull over at 10 interpretive stops identifying important battle sites. One tour stop provides an overview of the countryside to the south, and another provides an overview of the battle scene near the Elkhorn Tavern. A trail follows the Telegraph Road in Cross Timber Hollow. The Williams Hollow Road connects with the Huntsville Road, which in turn connects back to the Telegraph Road. Few visitors venture beyond the tour stops. The tour road was designed to accommodate a single lane of auto, bus, or RV traffic. Today, the tour road accommodates motorized touring, bicycling, and jogging.

Visitors bicycling on the tour route park at the visitor center and proceed from there. The number of visitors using the tour route for biking is about 80 per day on weekends during favorable weather (year-round), or about 8,000 per year. Equestrian staging is at the beginning of the tour route at a designated unpaved parking area. The designated equestrian trail passes through the western part of the battlefield, then proceeds around the north side of Elkhorn Mountain to the Elkhorn Tavern, and then along Telegraph Road back to the staging area. At the Elkhorn Tavern, equestrian users are permitted to follow Telegraph Road into Cross Timber Hollow down to the Tan Yard. Equestrian use averages three per day on weekends throughout the year during favorable weather.

There are several special events held throughout the year, including on the anniversary of the battle (March 7 and 8), July 4th, and Memorial Day. Living history programs depicting Civil War soldier life are provided several times during the year at the Elkhorn Tavern.

Several picnic tables are provided near the visitor center to accommodate tour groups and other visitors. General recreation, social, and competitive events are not permitted because they conflict with the purpose of the park.

Most of the park is protected from outside visual and auditory intrusions. However, there are some modern intrusions in the battlefield landscape, such as the visitor center and administrative area, and Arkansas Highway 72. In general, visitors have a good opportunity to visualize the 1862 landscape, despite the absence of the farm structures that existed at the time of the battle. The landscape is generally representative of the historic condition, although fire prevention and suppression has resulted in an increase in the density of trees in some areas of the park.

A library of historic documents and books related to the battle is in the visitor center/ administrative complex. The library is open to researchers by appointment.

Visitation at the park in FY 2001 was 74,680. Visitation has varied between 72,000 and 131,000 visitors since 1976. Visitation is highest from May through August, with another peak in October.

School groups visit the park primarily in April and May. Based on staff observations, the average stay in the park is one to three hours.

PARK OPERATIONS

The park is open from 8:00 a.m. to 5:00 p.m. daily, except Thanksgiving, Christmas, and New Year's Day. There are 10 special events scheduled throughout the year, some held during evenings, when hours are extended to accommodate the event.

The staff consists of the superintendent, administrative officer, chief of maintenance, budget assistant, chief of visitor services and interpretation, interpretive specialist, chief of natural and culture resources, resources protection ranger, and two maintenance workers, a total of 10 FTE.

The visitor center provides orientation and key visitor services, including museum exhibits, as well as office space for some staff and the primary maintenance area. Park entrance fees are collected here. The park staff has converted two former residences for use as office space. An additional maintenance area is used for equipment and materials storage.

The Union trenches are not contiguous with the rest of the park. Existing access to the site is currently closed because of the difficulty of providing adequate resource and visitor protection in this area.

ACCESS AND CIRCULATION

Visitors to Pea Ridge primarily arrive by private automobile. Between 1992 and 1998, the annual average number of vehicles in the park was 42,803 with a high of 53,193 vehicles in 1992 and a low of 32,735 vehicles in 1997. Approximately 80 buses annually arrive at the park, usually no more than four per day. It is anticipated that the number of school buses arriving at the park will increase slightly in the near future.

The 7-mile loop tour road provides access within the park to visitors and NPS staff. This primarily one-way single lane road has a posted speed limit of 25 mph and is accessed from the parking area near the visitor center. Visitors on the tour road include motorists, bus passengers, pedestrians, and bicyclists. Equestrians are not allowed on the tour road. Traffic volumes vary, but serious traffic congestion is rare. Buses and bicyclists, singly or in groups, occasionally pose delays for motorists.

Parking at the visitor center provides 39 spaces for automobiles, including two handicapped accessible spaces, and three bus/RV spaces. Thirteen parking spaces, including one handicap-accessible space and two bus/RV spaces are located at the Elkhorn Tavern. Eight parking spaces, including one handicap-accessible space and two bus/RV spaces are located at the East Overlook. Twelve parking spaces, including one handicap-accessible space and two bus/RV spaces are located at the West Overlook, and 10 parking spaces, including one handicap-accessible space and two bus/RV spaces are located at the Leetown Battlefield.

U.S. 62 parallels the southern edge of the park immediately within the park boundary. All auto and bus access to the park is from U.S. 62. The majority of traffic enters the park from the eastbound lanes. The visitor center and main parking area are located near the U.S. 62 entrance to the park.

U.S. 62 serves the main east-west highway for the rapidly growing northwest Arkansas/southwest Missouri region. It is a major regional tourist corridor. The local population is increasing leading to higher traffic volumes as the highway serves more and more as a primary local commuter route. U.S. 62 is primarily a two-lane highway. Additional lanes include a center left-turn lane and a right-turn deceleration lane for westbound traffic entering the park.

During the period 2000 -2020, average daily traffic volumes on U.S. 62 are projected to increase nearly 60%, from 11,300 vehicles to 19,900 vehicles. The percentage of truck traffic in future traffic projections is expected to remain constant at around 14%.

AR 72 bisects the Leetown Battlefield. This two-lane road connects U.S. 62 with the town of Pea Ridge, four miles west of the park. Scattered agricultural, residential, and commercial development is found adjacent to the highway. During the period 2000 -2020, average daily traffic volumes on AR 72 are projected to double from 3,570 vehicles to 7,130 vehicles. The percentage of truck traffic in future traffic projections is expected to remain constant at around 5%.

Other park roads include the Ford Road, which at one time was a two-lane graveled road that served as part of AR 72 between Pea Ridge and Garfield before establish-

ment of the park and the construction of the current right-of-way for AR 72. That alignment connected with U.S. 62 south of the Clemons' Farm on the east side of the park. After the park was established, AR 72 was realigned to maintain a connection between the town of Pea Ridge and U.S. 62 on the west side of the park. The road base was left in place and is visible today. The Leetown Road also connects the town of Pea Ridge with AR 72.

Traffic congestion is problematic during the morning and afternoon commute. Traffic congestion is also a factor on holidays, weekends, and special event days, especially on U.S. 62. Accidents and near-misses have increased substantially in the last five years. Projected traffic increases on U.S. 62 pose potential impacts on park access and visitor safety on the highway at and adjacent to the park entrance. The National Park Service has consulted with the Arkansas Highway and Transportation Department (AHTD) regarding any proposed improvements to address projected traffic increases along U.S. 62. AHTD is focusing on long-term improvements of U.S. 62 and currently has no plans for relocating or improving AR 72.

Environmental Consequences

METHODOLOGY FOR ASSESSING IMPACTS

The National Environmental Policy Act (NEPA) requires federal agencies to analyze and disclose the environmental impacts of the proposed federal action, reasonable alternatives to that action, and any adverse environmental effects that cannot be avoided should the preferred alternative be implemented.

Potential impacts are described in terms of type (are the effects beneficial or adverse?), context (are the effects site-specific, local, or even regional?), duration (are the effects short-term, lasting less than one year, long-term, lasting more than one year, or permanent?), and intensity (are the effects negligible, minor, moderate, or major?). Because definitions of intensity (negligible, minor, moderate, or major) vary by impact topic, intensity definitions are provided separately for each impact topic analyzed in this GMP/EIS.

CUMULATIVE IMPACTS

The Council on Environmental Quality (CEQ) regulations, which implement the National Environmental Policy Act of 1969 (42 USC 4321 *et seq*.), require assessment of cumulative impacts in the decision-making process for federal projects. Cumulative impacts are defined as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or nonfederal) or person undertakes such other actions" (40 CFR 1508.7). Cumulative impacts are considered for both the no-action and action alternatives.

Cumulative impacts were determined by combining the impacts of the alternatives with other past, present, and reasonably foreseeable future actions. Therefore, it was necessary to identify other ongoing or reasonably foreseeable future projects at Pea Ridge and, if applicable, the surrounding region. These actions include the projected expansion of U.S. 62 near the park to accommodate projected increases in traffic volume and the potential for increased conversion of agricultural land for residential and commercial development. While no specific developments near the park have been identified, it is reasonable to assume that future development could pose impacts on the park. The small community of Pea Ridge is only 5 miles from the park boundary. Increased suburbanization from the cities of Bentonville, Rogers, and Pea Ridge could envelop areas in and around the town of Pea Ridge, including lands adjacent to the park.

IMPAIRMENT OF PARK RESOURCES AND VALUES

While Congress has given the National Park Service wide management discretion to allow certain impacts within parks, that discretion is limited by the statutory requirement that the Park Service must leave park resources unimpaired for the enjoyment of future generations.

Whether an impact meets this definition depends on the particular resources and values that would be affected; the duration, severity, and timing of the impact; the direct, indirect, and cumulative effects of the impact in question, and other impacts. An impact would be more likely to constitute impairment to the extent that it affects a resource or value whose conservation is

- necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park
- key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park
- identified as a goal in the park's general management plan or other relevant National Park Service planning documents (NPS 2001).

This policy does not prohibit impacts to park resources and values. The Park Service has the discretion to allow impacts to park resources and values when necessary and appropriate to fulfill the purposes of a park, so long as the impacts do not constitute impairment. Moreover, an impact is less likely to constitute impairment if it is an unavoidable result of an action necessary to preserve or restore the integrity of park resources or values.

IMPACTS ON CULTURAL RESOURCES AND §106 OF THE NATIONAL HISTORIC PRESERVATION ACT

This environmental impact statement assessment describes impacts to archeological resources; historic sites, structures, site-specific collections, and cultural landscapes in terms of type, context, duration, and intensity. This is consistent with the regulations of the Council on Environmental Quality (CEQ) that implement the National Environmental Policy Act (NEPA). These impact analyses are intended, however, to comply with the requirements of both NEPA and §106 of the National Historic Preservation Act (NHPA). In accordance with the Advisory Council on Historic Preservation's regulations implementing §106 of the NHPA (36 CFR Part 800, *Protection of Historic Properties*), impacts to archeological resources, historic sites, structures, site-specific collections, and cultural landscapes were identified and evaluated by

- determining the area of potential effects and identifying cultural resources in the area of potential effects that may be listed in the National Register of Historic Places
- applying the criteria of adverse effect to affected cultural resources
- considering ways to avoid, minimize, or mitigate adverse effects

Under the Advisory Council's regulations a determination of either *adverse effect* or *no adverse effect* must also be made for affected National Register eligible cultural resources. An *adverse effect* occurs whenever an impact alters, directly or indirectly, any characteristic of a cultural resource that qualify it for inclusion in the National Register, e.g., diminishing the integrity of the resource's location, design, setting, materials, workmanship, feeling, or association. Adverse effects also include reasonably foreseeable effects that would occur later, be farther removed in distance or be cumulative (36 CFR Part 800.5, *Assessment of Adverse Effects*). A determination of *no adverse effect* means there is an effect, but the effect would not diminish in any way the characteristics of the cultural resource that qualify it for inclusion in the National Register.

CEQ regulations and the National Park Service's *Conservation Planning, Environmental Impact Analysis and Decision-making* (Director's Order #12) also call for a discussion of the appropriateness of mitigation, as well as an analysis of how effective the mitigation would be in reducing the intensity of a potential impact, e.g. reducing the intensity of an impact from major to moderate or minor.

Any resultant reduction in intensity of impact due to mitigation, however, is an estimate of the effectiveness of mitigation under NEPA only. It does not suggest that the level of effect as defined by §106 is similarly reduced. Although adverse effects under §106 may be mitigated, the effect remains adverse.

A §106 summary is included in the impact analysis sections for archeological resources; historic sites, structures, and site-specific collections; and cultural landscapes. The §106 Summary is intended to meet the requirements of §106 and is an assessment of the effects of the undertaking (implementation of the alternative) on cultural resources, based upon the criterion of effect and criteria of adverse effect found in the Advisory Council's regulations.

Archeological Resources

Definitions of Intensity Levels. In order for an archeological resource to be eligible for the National Register of Historic Places it must meet one or more of the following criteria of significance: a) associated with events that have made a significant contribution to the broad patterns of our history; b) associated with the lives of persons significant in our past; c) embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or possess high artistic value, or represent a significant and distinguishable entity whose components may lack individual distinction; d) have yielded, or may be likely to yield, information important in prehistory or history. In addition, the archeological resource must possess integrity of location, design, setting, materials, workmanship, feeling, association (*National Register Bulletin, Guidelines for Evaluating and Registering Archeological Properties*). For purposes of analyzing impacts to archeological resources either listed in or eligible to be listed in the National Register, the thresholds of change for intensity of an impact are defined below:

Negligible. Impact is at the lowest levels of detection; barely measurable with no perceptible consequences, either adverse or beneficial, to archeological resources. For purposes of Section 106, the determination of effect would be *no adverse effect*.

Minor
Adverse impact - disturbance of a site(s) results in little, if any, loss of significance or integrity and the National Register eligibility of the site(s) is unaffected. For purposes of Section 106, the determination of effect would be *no adverse effect*.
Beneficial impact – maintenance and preservation of a site(s). For purposes of Section 106, the determination of effect would be *no adverse effect*.

Moderate
Adverse impact - disturbance of a site(s) does not diminish the significance or integrity of the site(s) to the extent that its National Register eligibility is jeopardized. For purposes of Section 106, the determination of effect would be *adverse effect*.
Beneficial impact – stabilization of a site(s). For purposes of Section 106, the determination of effect would be *no adverse effect*.

Major
Adverse impact – disturbance of a site(s) diminishes the significance and integrity of the site(s) to the extent that it is no longer eligible to be listed in the National Register. For purposes of Section 106, the determination of effect would be *adverse effect*.
Beneficial impact – active intervention to preserve a site(s). For purposes of Section 106, the determination of effect would be *no adverse effect*.

Historic Structures/Buildings

Definitions of Intensity Levels. In order for a structure or building to be listed in the National Register of Historic Places, it must meet one or more of the following criteria of significance: a) associated with events that have made a significant contribution to the broad patterns of our history; b) associated with the lives of persons significant in our past; c) embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or possess high artistic value, or represent a significant and distinguishable entity whose components may lack individual distinction; d) have yielded, or may be likely to yield, information important in prehistory or history. In addition, the structure or building must possess integrity of location, design, setting, materials, workmanship, feeling, association (*National Register Bulletin, How to Apply the National Register Criteria for Evaluation*). For purposes of analyzing potential impacts to historic structures/ buildings, the thresholds of change for the intensity of an impact are defined as follows:

Negligible. Impact(s) is at the lowest levels of detection - barely perceptible and not measurable. For purposes of Section 106, the determination of effect would be *no adverse effect*.

Minor
Adverse impact - impact would not affect the character-defining features of a National Register of Historic Places eligible or listed structure or building. For purposes of Section 106, the determination of effect would be *no adverse effect*.
Beneficial impact - stabilization/ preservation of character defining features in accordance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties*. For purposes of Section 106, the determination of effect would be *no adverse effect*.

Moderate
Adverse impact - impact would alter a character defining feature(s) of the structure or building but would not diminish the integrity of the resource to the extent that its national register eligibility is jeopardized. For purposes of Section 106, the determination of effect would be *no adverse effect*.
Beneficial impact – rehabilitation of a structure or building in accordance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties*. For purposes of Section 106, the determination of effect would be *no adverse effect*.

Major
Adverse impact - impact would alter a character defining feature(s) of the structure or building, diminishing the integrity of the resource to the extent that it is no longer eligible to be listed in the national register. For purposes

of Section 106, the determination of effect would be *adverse effect*.
Beneficial impact – restoration of a structure or building in accordance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties*. For purposes of Section 106, the determination of effect would be *no adverse effect*.

Cultural Landscapes

Definitions of Intensity Levels. In order for a cultural landscape to be listed in the National Register, it must meet one or more of the following criteria of significance: a) associated with events that have made a significant contribution to the broad patterns of our history; b) associated with the lives of persons significant in our past; c) embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or possess high artistic value, or represent a significant and distinguishable entity whose components may lack individual distinction; d) have yielded, or may be likely to yield, information important in prehistory or history (*National Register Bulletin, How to Apply the National Register Criteria for Evaluation*). The landscape must also have integrity of those patterns and features - spatial organization and land forms; topography; vegetation; circulation networks; water features; and structures/buildings, site furnishings or objects - necessary to convey its significance (*Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes*). For purposes of analyzing potential impacts to cultural landscapes, the thresholds of change for the intensity of an impact are defined as follows:

Negligible. Impact(s) is at the lowest levels of detection - barely perceptible and not measurable. For purposes of Section 106, the determination of effect would be *no adverse effect*.

Minor
Adverse impact - impact(s) would not affect the character-defining patterns and features of a National Register of Historic Places eligible or listed cultural landscape. For purposes of Section 106, the determination of effect would be *no adverse effect*.
Beneficial impact – preservation of character defining patterns and features in accordance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties With Guidelines for the Treatment of Cultural Landscapes*. For purposes of Section 106, the determination of effect would be *no adverse effect*.

Moderate
Adverse impact - impact(s) would alter a character defining pattern(s) or feature(s) of the cultural landscape but would not diminish the integrity of the landscape to the extent that its national register eligibility is jeopardized. For purposes of Section 106, the determination of effect would be *no adverse effect*.
Beneficial impact – rehabilitation of a landscape or its patterns and features in accordance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes*. For purposes of Section 106, the determination of effect would be *no adverse effect*.

Major
Adverse impact - impact(s) would alter a character defining pattern(s) or feature(s) of the cultural landscape, diminishing the integrity of the landscape to the extent that it is no longer eligible to be listed in the national register. For purposes of Section 106, the determination of effect would be *adverse effect*.
Beneficial impact – restoration of a landscape or its patterns and features in accordance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes*. For purposes of Section 106, the determination of effect would be *no adverse effect*.

Ethnographic Resources

Definitions of Intensity Levels. Certain important questions about human culture and history can only be answered by gathering information about the cultural content and context of cultural resources. Questions about contemporary peoples or groups, their identity, and heritage have the potential to be addressed through ethnographic resources. As defined by the National Park Service, an ethnographic resource is a site, structure, object, landscape, or natural resource feature assigned traditional, legendary, religious, subsistence, or other significance in the cultural system of a group traditionally associated with it. Some places of traditional cultural use may be eligible for inclusion in the National Register of Historic Places as traditional cultural properties (TCPs) because of their association with cultural practices or beliefs of a living community that (a) are rooted in that community's history and (b) are important in maintaining the continuing cultural identity of the community (*National Register Bulletin, Guidelines for Evaluating and Documenting Traditional Cultural Properties*). For purposes of analyzing potential impacts to ethnographic resources, the thresholds of change for the intensity of an impact are defined below.

Negligible. Impact(s) would be barely perceptible and would neither alter resource conditions, such as traditional access or site preservation, nor alter the relationship between the resource and the affiliated group's body of practices and beliefs. For purposes of Section 106, the determination of effect on TCPs would be *no adverse effect*.

Minor
Adverse impact – impact(s) would be slight but noticeable but would neither appreciably alter resource conditions, such as traditional access or site preservation, nor alter the relationship between the resource and the affiliated group's body of practices and beliefs. For purposes of Section 106, the determination of effect on TCPs would be *no adverse effect*.
Beneficial impact – would allow access to and/or accommodate a group's traditional practices or beliefs. For purposes of Section 106, the determination of effect on TCPs would be *no adverse effect*.

Moderate

Adverse impact – impact(s) would be apparent and would alter resource conditions. Something would interfere with traditional access, site preservation, or the relationship between the resource and the affiliated group's practices and beliefs, even though the group's practices and beliefs would survive. For purposes of Section 106, the determination of effect on TCPs would be *adverse effect*.

Beneficial impact – would facilitate traditional access and/or accommodate a group's practices or beliefs. For purposes of Section 106, the determination of effect on TCPs would be *no adverse effect*.

Major
Adverse impact – impact(s) would alter resource conditions. Something would block or greatly affect traditional access, site preservation, or the relationship between the resource and the affiliated group's body of practices and beliefs, to the extent that the survival of a group's practices and/or beliefs would be jeopardized. For purposes of Section 106, the determination of effect on TCPs would be *adverse effect*.
Beneficial impact – would encourage traditional access and/or accommodate a group's practices or beliefs. For purposes of Section 106, the determination of effect on TCPs would be *no adverse effect*.

MUSEUM COLLECTIONS

Museum collections (prehistoric and historic objects, artifacts, works of art, archival documents, and natural history specimens) are generally ineligible for listing in the national register. As such, §106 determinations of effect are not provided.

Definitions of Intensity Levels

Negligible: Impact is at the lowest levels of detection – barely measurable with no perceptible consequences, either adverse or beneficial, to museum collections.

Minor
Adverse impact – would affect the integrity of few items in the museum collection but would not degrade the usefulness of the collection for future research and interpretation.

Beneficial impact – would stabilize the current condition of the collection or its constituent components to minimize degradation.

Moderate
Adverse impact – would affect the integrity of many items in the museum collection and diminish the usefulness of the collection for future research and interpretation.

Beneficial impact – would improve the condition of the collection or protect its constituent parts from the threat of degradation.

Major
Adverse impact — would affect the integrity of most items in the museum collection and destroy the usefulness of the collection for future research and interpretation.
Beneficial impact — would secure the condition of the collection as a whole or its constituent components from the threat of further degradation.

IMPACTS ON SPECIAL STATUS SPECIES

The impact evaluation for special status species is based on the occurrence of a species or potential habitat affected by actions identified in an alternative, the partial or complete loss of habitat, and the species sensitivity to disturbance. The intensity is defined using the criteria of effect identified by the U.S. Fish and Wildlife Service (FWS) for threatened and endangered species.
No Effect – would not affect a listed species or designated critical habitat.

Not likely to adversely affect – effects on listed species are expected to be discountable, insignificant, or completely

beneficial. Discountable effects are those extremely unlikely to occur. Insignificant effects relate to the size of the impact and should never reach the scale where take occurs. Beneficial effects are contemporaneous positive effects without any adverse effects to the species. Based on best judgment, a person would not (1) be able to meaningfully measure, detect, or evaluate insignificant effects or (2) expect discountable effects to occur.

Likely to adversely affect – an adverse effect to listed species that is not discountable, insignificant, or beneficial. For federally listed species, this determination would require the initiation of formal section 7 consultation. This would include actions that adversely affect listed species or critical habitat, jeopardize the continued existence of a species proposed for listing, or adversely modify proposed critical habitat.

IMPACTS ON PLANT COMMUNITIES

The intensity of impacts on plant communities was determined using the following definitions:

Negligible – impacts would have no measurable or perceptible changes in plant community size, integrity, or continuity.
Minor – impacts would be measurable or perceptible but would be localized within a relatively small area. The overall viability of the plant community would not be affected and, if left alone, would recover.
Moderate – the impact would cause a change in the plant community (e.g., abundance, distribution, quantity, or quality), however, the impact would be localized.
Major – the impact would substantial, highly noticeable, and permanent.

IMPACTS ON VISITOR EXPERIENCE

The planning team determined the intensity of impacts on the visitor experience in the context of the visitors' understanding the battle using the following criteria:

Negligible – no discernible change in access to the battlefield, programs, or media, and consequently no degradation or improvement of visitors understanding the battle
Minor – a change in access to the battlefield, programs, or media that would slightly alter the visitors' understanding of the significance of the battle of Pea Ridge
Moderate – change in access to the battlefield, programs, or media that would have an appreciable affect on the visitor's understanding of the battle
Major – change in access to the battlefield, programs, or media that would have a substantial, highly noticeable influence on the visitor's understanding of the battle and potentially permanently alter the visitor experience

Type of Impact. Adverse impacts are those that most visitors would perceive as undesirable. Beneficial impacts are those that most visitors would perceive as desirable.

IMPACTS ON PARK OPERATIONS

The intensity of impacts on park operations is defined as follows:

Negligible – no perceptible change in park operations
Minor – change is slightly detectable but would not affect the park's overall ability to provide services and maintain facilities

Moderate – the change is clearly detectable and could have an appreciable effect on park operations and facilities
Major – the change would have a substantial, highly noticeable influence on park operations and facilities and could reduce the park's ability to provide services and/or maintain facilities

Type of impact. Adverse impacts are those that most visitors would perceive as undesirable. Beneficial impacts are those that most visitors would perceive as desirable.

IMPACTS ON ACCESS AND CIRCULATION

The intensity of impacts on park access and transportation is defined as follows:

Negligible – no perceptible change to park access or sites crucial to understanding the battle; no apparent effect to traffic flow in the vicinity of the park
Minor – change in traffic volume and flow in and around the park that causes a slight change in visitor safety or access to the battlefield
Moderate – changes in traffic volume and flow in and around the park that have an appreciable affect on visitor safety or access to the battlefield
Major – changes in traffic volume and flow in and around the park that have a substantial affect on visitor safety or access to the battlefield

Type of Impact. Adverse impacts are those that most visitors would perceive as undesirable. Beneficial impacts are those that most visitors would perceive as desirable.

IMPACTS OF ALTERNATIVE 1: NO-ACTION ALTERNATIVE

ARCHEOLOGICAL RESOURCES

Vandalism, theft, and trampling of archeological resources could occur as a result from visitor use, leading to minor, long-term adverse impacts on these resources. The park staff currently records about four cases per year of unauthorized digging in the park by relic hunters. Limited restoration of the battlefield could disturb previously undiscovered resources, resulting in minor long-term adverse impacts. Incidental damage from off-road vehicle use or vehicles that enter the park as a result of accidents on U.S. 62 could also pose minor adverse impacts on archeological resources.

Avoidance of known sites, archeological monitoring, limited access to sensitive sites, ongoing archeological surveys, and educational programs informing visitors about the park's archeological resources would mitigate adverse impacts to these resources.

Cumulative Impacts

Past, present, and reasonably foreseeable future actions have affected and potentially would continue to affect archeological sites in the region of the park. Agriculture and other activities that occurred after the battle could have disturbed below ground resources in and around Pea Ridge National Military Park. Construction of park roads and structures, including the tour road, led to the discovery of archeological resources related to the battle.

Future excavation and grading for the expansion of U.S. 62 may result in the discovery of historic or prehistoric archeological resources. Widening U.S. 62 to four lanes could pose adverse impacts on battle-related and other archeological resources within the park boundaries. In addition, residential or other development could disturb or destroy archeological artifacts in the region.

Alternative 1 would contribute a minor, long-term adverse component to cumulative impacts on archeological resources at the park.

Conclusion

Alternative 1 would have moderate, long-term, adverse impacts on the park's archeological resources due to theft, vandalism, and accidental damage and disturbance resulting from the expansion of U.S. 62. There would be no impairment of park resources and values.

Section 106 Summary

Under regulations of the Advisory Council on Historic Preservation (36 CFR 800.5 "Assessment of Adverse Impacts") the National Park Service finds that this alternative would result in no adverse effects on archeological resources.

CULTURAL LANDSCAPES

Under alternative 1, limited restoration of the landscape to its 1862 appearance and the reestablishment of historic fencelines would result in minor to moderate long-term beneficial impact on the park's cultural landscape.

Cumulative Impacts

A variety of past, present, and reasonably foreseeable actions have affected and would continue to affect the cultural landscape at and adjacent to the park. The park encompasses approximately 90% of the battlefield area during the Battle of Pea Ridge. Since the time of the battle, most areas inside and outside the present park boundary were developed for intensive agricultural use.

Although most acreage within the park's boundaries was also intensively farmed until recent decades (since the park's establishment in 1956), much of the cultural landscape within the park has converted to dense forest with shrubby undergrowth. Other portions are maintained as open fields. In addition, several species of exotic, invasive plants have become pervasively established in the park. In essence, the entire landscape as it existed at the time of the battle has been altered to such a degree that little of the historical setting remains. These actions resulted in a moderate to major long-term adverse impact on the landscape. Recent efforts, however, have begun to gradually restore the landscape to its 1862 condition. Small-scale restoration has resulted in a minor long-term beneficial impact on the landscape.

In addition to changes in vegetation, the gradual deterioration and removal of buildings has altered the area's cultural landscape. The construction of U.S. 62 and AR 72 also affected the historic landscape. The above actions resulted in a moderate, long-term adverse impact on the landscape.

Future actions would also affect the landscape. As residential and other urban development continues in the area, including construction and modification of transportation corridors, modern components increasingly would be visible from points within the park and would contribute to visual degradation of the landscape.

Alternative 1 would contribute a minor short- and long-term beneficial component to cumulative impacts on the cultural landscape at the park. This would not constitute impairment of park resources and values.

Conclusion

Alternative 1 would have a minor long-term beneficial impact on the park's cultural landscape due to the limited and gradual restoration of the landscape to 1862 conditions. These beneficial impacts would not constitute impairment of the park's resources and values.

Section 106 Summary

Under regulations of the Advisory Council on Historic Preservation (36 CFR 800.5 "Assessment of Adverse Impacts") the National Park Service finds that this alternative would result in no adverse effects on the park's cultural landscape.

HISTORIC SITES AND STRUCTURES

Under alternative 1, use of the park's historic sites and structures for visitor use and interpretation would cause negligible to minor adverse impacts to these resources from vandalism, theft, or accidental damage. The park staff would continue to manage visitation at the Elkhorn Tavern in order to minimize adverse impacts to this structure. Preservation efforts would have a minor to moderate long-term beneficial impact on this structure. The Union trenches would

remain closed to visitors, resulting in a minor long-term beneficial impact on these resources. Limited restoration of the battlefield landscape would pose minor, long-term beneficial impacts on historic sites in the park.

Cumulative Impacts

A variety of past, present, and reasonably foreseeable actions have affected and would continue to affect historic sites and structures at the park. Pea Ridge was once a thriving agricultural community. The gradual removal and deterioration of buildings and structures over the years has eliminated most historic structures and other resources related to agricultural and rural development present at the time of the battle. Confederate guerillas burned the Elkhorn Tavern in 1863. The construction of U.S. 62 may have obliterated some historic features such as roads in use at the time of the battle. Future actions may further degrade or eliminate such resources in the area.

Alternative 1 would contribute a minor, long-term beneficial component to cumulative impacts on regional historic sites and structures.

Conclusion

Alternative 1 would have minor, long-term beneficial impacts on the park's historic sites and structures. Preservation efforts would minimize deterioration of the Elkhorn Tavern. Continued closure of the Union trenches would have a minor long-term beneficial impact on these resources. There would be no impairment of park resources and values.

Section 106 Summary

Under regulations of the Advisory Council on Historic Preservation (36 CFR 800.5 "Assessment of Adverse Impacts") the National Park Service finds that this alternative would result in no adverse effects on historic sites and structures.

MUSEUM COLLECTIONS

Under Alternative 1, the park's collections would be use to enhance education and interpretive programs. Without the development of new curatorial and museum facilities for the storage and display of the collection, these resources would be subject to long term minor to moderate adverse impacts due to increased exposure to the environment and to vandalism and theft.

Cumulative Impacts

There would be no cumulative impacts on park collections.

Conclusion

This alternative would have a long term negligible to minor adverse impact on the park's collections due to the potential for minor adverse impacts due to exposure to the physical environment and to vandalism and theft. There would be no impairment of park resources and values.

Section 106 Summary

Under regulations of the Advisory Council on Historic Preservation (36 CFR 800.5 "Assessment of Adverse Impacts") the National Park Service finds that this alternative would result in an adverse effect on the park's collections.

ETHNOGRAPHIC RESOURCES

Under alternative 1, continued maintenance of portions of the historic Telegraph Road would result in minor long-term beneficial impacts on the park's ethnographic resources.

Cumulative Impacts

A variety of past, present, and reasonably foreseeable actions have affected and would continue to affect the ethnographic resources of the park. Paving of portions of the Telegraph Road altered the historic character of this significant resource. The construction of U.S. 62 and AR 72 also affected the historic transportation patterns of the park's landscape. Increases in traffic and expansion of the area's transportation infrastructure could also pose some impacts on this resource.

Alternative 1 would contribute a minor short-term and long-term, beneficial component to cumulative impacts on the park's ethnographic resources. This would not constitute impairment of park resources and values.

Conclusion

Alternative 1 would have a minor, long-term, beneficial impact on the park's ethnographic resources due to the continued maintenance of portions of the Telegraph Road. These beneficial impacts would not constitute impairment of the park's resources and values.

Section 106 Summary

Under regulations of the Advisory Council on Historic Preservation (36 CFR 800.5 "Assessment of Adverse Impacts") the National Park Service finds that this alternative would result in no adverse effects on the park's ethnographic resources.

SPECIAL STATUS SPECIES

Under alternative 1, the vegetation management program would reduce competition from non-native species and improve the habitat for the Ozark chinquapin, a state special status species. This would result in a moderate, long-term beneficial impact on the Ozark Chinquapin. As indicated in the "Affected Environment" chapter, federal threatened and endangered species are not known to occur in the park and therefore would not be affected.

Cumulative Impacts

Alternative 1 would improve habitat and reduce competition with the Ozark chinquapin within the park. The impacts of alternative 1, in conjunction with the impacts of other past, present, and reasonably foreseeable future actions described above, would result in minor, long-term adverse impacts on special status species. However, alternative 1 would contribute a relatively small increment to the overall cumulative impact.

Conclusion

Under alternative 1, there would be a negligible to minor long-term beneficial impact on special status species. The impacts described above would not result in impairment of the park's resources and values.

PLANT COMMUNITIES

Implementing the ongoing vegetation management program would result in a moderate improvement in the quality of

the plant communities at Pea Ridge. Landscape rehabilitation and vegetation management promotes stability in the communities. The vegetation management program would produce the desired composition and structure over time. This would have a long-term, moderate beneficial impact on the park's plant communities.

Cumulative Impacts

Past land use activities such as agriculture has caused plant community fragmentation in the vicinity. Woodland remnants confined to watercourses, hollows, and slopes leading to ridges are all that remain of what were once extensive climax plant communities, resulting in a major long-term adverse impact on plant communities. Facility development at the park resulted in some clearing, leading to a minor long-term adverse impact on plant communities. The management of public lands in the region for wildlife and recreational purposes results in long-term minor beneficial impact on regional plant communities.

The impacts of alternative 1, in conjunction with the impacts of other past, present, and reasonably foreseeable future actions described above, would result in minor long-term adverse impacts on plant communities. However, alternative 1 would contribute a relatively small increment to the overall cumulative impact.

Conclusion

Continuing the park's vegetation management program would have a minor long-term beneficial impact on the quality of the plant communities in the park by promoting desired plant community composition and structure. The impacts described above would not result in impairment of park resources and values.

VISITOR EXPERIENCE

The effect of alternative 1 on the visitor experience would be negligible for the long term. Visitors would continue to obtain an overview of the battle and other Civil War action in the region at the visitor center. Visitors would continue to use the tour road to access the sites where interpretive waysides are provided. Bicycling would continue on the tour route, while hiking and horse use would continue on designated trails. The Elkhorn Tavern would continue to be a popular site because it is the only structure connecting the visitor to the time, and it was a focus of the battlefield action. Few visitors would venture beyond the tour stops because there would be no clear indication of the historic traces and no information would be provided inviting them to further explore the park.

While visitation at the park has fluctuated in the past, it is reasonable to assume that visitation might increase with regional population growth. However, visitation increases anticipated over the life of this plan would have a negligible effect on the visitor experience. The transportation study conducted to support this GMP indicates daily visitation would have to exceed 1,000 per day to exceed the capacity of existing facilities and force visitors to skip stops on the tour route. It is unlikely visitation would reach these levels during the life of this plan.

Cumulative Impacts

Increased traffic on U.S. 62 and AR 72 would increase the frequency of visual intrusions and the frequency and duration of vehicular noise, particularly with the

expansion of U.S. 62 to four lanes. The highway expansion could make park access more difficult and dangerous for visitors. This could pose minor to moderate adverse impacts on the visitor experience.

The impacts of alternative 1, in conjunction with the impacts of other past, present, and reasonably foreseeable future actions described above, would result in negligible to minor long-term adverse impacts on the visitor experience.

Conclusion

Alternative 1 would have a minor long-term beneficial impact on the visitor experience at the park. Visitors would continue to learn about the Pea Ridge battle at the visitor center and then visit the battlefield sites using the tour road or the equestrian or hiking trails. Increased traffic on U.S. 62 and AR 72 could pose minor to moderate adverse impacts on the visitor experience due to additional noise and visual intrusions. The impacts described above would not result in impairment of park resources and values.

PARK OPERATIONS

Under alternative 1, the park would remain understaffed to provide the appropriate level of visitor service and resource protection, resulting in a minor long-term adverse impact on park operations.

Cumulative Impacts

A variety of past, present, and future conditions have affected and would continue to affect operations at Pea Ridge. Inadequate staffing levels and the need for patrol and maintenance on public roads would continue to divert park management and staff from resource protection and interpretation. The construction of North Old Wire Road created additional access to the park that has resulted in additional pressure on patrol and maintenance activities. Cooperation with local law enforcement also places more demands on ranger activities, resulting in minor, long-term adverse impacts on park operations.

The impacts of alternative 1, in conjunction with the impacts of other past, present, and reasonably foreseeable future actions described above, would result in minor, long-term adverse cumulative impacts on park operations.

Conclusion

Alternative 1 would have a minor, long-term adverse impact on park operations. The impacts described above would not result in impairment of park resources and values.

ACCESS AND CIRCULATION

According to the findings of the transportation study conducted to support the general management plan, access within the park can handle substantially greater numbers of visitors than the park currently accommodates. Increases in visitation as a result of regional population growth should have no discernable impact on traffic flow on the tour road. It is not anticipated that increased bicycle use of the tour route would lead to conflicts with motorists. Alternative 1 would pose negligible long-term adverse impacts on park access and circulation.

Cumulative Impacts

Previous park development based on the 1964 *Master Plan* provided access to a

number of sites associated with the battle as well as an overview of the battlefield from two locations on Pea Ridge. The existing parking area and trail developed to provide access to the Union trenches area was also a major benefit for access. Closure of the Union trenches area was a major adverse impact to access. The trail was not accessible and has now deteriorated.

Traffic volume has increased significantly since the park was established and high speeds have made the access more difficult for eastbound visitors. Increases in regional population could result in heavier traffic on U.S. 62 and AR 72. These increases could pose adverse impacts on visitor access to the park. The Arkansas Highway and Transportation Department is planning to address projected increases in traffic on U.S. 62. Widening of U.S. 62 would require the addition of deceleration and turn lanes in order to ensure visitor safety and access to the park. An earlier realignment of AR 72 had a negligible effect on local access because a connection between the town of Pea Ridge and U.S. 62 was maintained. There was a major beneficial impact to park access because the realignment eliminated through traffic on Ford Road and established controlled access to the park. Construction of the North Old Wire Road provided uncontrolled access to the park and created trespass issues.

The impacts of alternative 1, in conjunction with the impacts of other past, present, and reasonably foreseeable future actions described above, would result in minor to moderate, long-term adverse impacts on access and circulation. However, alternative 1 would contribute a relatively small increment to the overall cumulative impact on park access and circulation.

Conclusion

Alternative 1 would have a negligible, long-term adverse impact on park access and circulation. Increased traffic flow on U.S. 62 and AR 72 could impede visitor access to the park. Continued closure of the parking lot and trail at the Union trenches prevents visitor access to these important resources. The impacts described above would not result in impairment of park resources and values.

IMPACTS OF ALTERNATIVE 2: IMMERSED IN THE FIELD OF BATTLE

ARCHEOLOGICAL RESOURCES

Under alternative 2, increased visitor access to key battle areas could result in an inadvertent discovery of resources, theft, or vandalism, leading to long-term negligible to minor adverse impacts on the park's archeological resources. Realigning the tour road and enhancing the battlefield landscape, including rehabilitating historic roads and traces and developing new access to the Union trenches, could expose previously undiscovered archeological resources, resulting in minor, long-term adverse impacts on these resources. Construction of the new visitor center and administrative and maintenance facilities could result in minor short-term adverse impacts on archeological resources.

Archeological monitoring, limited access to sensitive sites, ongoing archeological surveys, and educational programs informing visitors about the park's archeological resources would result in long-term, minor to moderate beneficial impacts on these resources. Archeological surveys and monitoring would precede any new efforts to enhance the appearance of the battlefield landscape. The addition of lands identified in the "Boundary Adjustments" section could provide additional protection for archeological resources in these areas, resulting in a long-term minor to moderate beneficial impact on archeological resources.

Cumulative Impacts

As described in alternative 1, a variety of human actions has affected and would continue to affect archeological resources in the region of the park. Agriculture and other activities may have disturbed below-ground resources in and near the park, resulting in long-term minor to moderate adverse impacts on these resources. Construction of park roads and structures, including the tour road, led to the discovery of archeological resources related to the battle, resulting in minor long-term adverse impacts on archeological resources.

Future excavation and grading for widening U.S. 62 in its existing right-of- way might result in the discovery of historic or prehistoric archeological resources, potentially leading to long-term minor to moderate adverse impacts. Archeological monitoring of construction of U.S. 62 would identify resources that might be affected. However, current archeological and historical data indicates that widening U.S. 62 in its current alignment poses fewer potential adverse impacts on battle-related resources in and around the park than the construction of new rights-of-way for the highway.

Other potential impacts could result from residential or other development that could disturb or destroy archeological artifacts in the region.

The impacts of alternative 2, in conjunction with the impacts of other past, present, and reasonably foreseeable future actions described above, would result in minor long-term adverse cumulative impacts on archeological resources at the park.

Conclusion

This alternative would have negligible to minor long-term adverse impacts on archeological resources. There would be no impairment of park resources and values.

Section 106 Summary

Under regulations of the Advisory Council on Historic Preservation (36 CFR 800.5 "Assessment of Adverse Impacts") the National Park Service finds that this alternative would result in no adverse effects on archeological resources.

CULTURAL LANDSCAPES

Under alternative 2, key battlefield sites, including the areas around Leetown Battlefield, Cross Timber Hollows, Elkhorn Tavern, the Union trenches, and Welfley's Knoll, constituting about 40% of the park acreage, would be zoned in the Pea Ridge Battleground zone and rehabilitated to more closely resemble their 1862 condition. Forest densities would be managed to resemble those reported in first-hand accounts of the battle, resulting in a long-term minor to moderate beneficial impact on the battlefield landscape. Reestablishment of the historic fencelines and maintenance or reestablishment of open fields and prairie would enhance visitor understanding of the historic landscape. The removal of the existing visitor center and administrative and maintenance facilities from the battle-related landscape would enable park management to rehabilitate that area of the park to a condition resembling its 1862 appearance.

The removal of AR 72 would enhance the appearance of the historic landscape by removing a modern intrusion, resulting in a long-term, moderate beneficial impact on the landscape. The addition of lands identified in the "Boundary Adjustments" section would enhance the cultural landscape by including critical battle-related lands within the park boundaries, resulting in a minor to moderate, beneficial impact on the landscape.

Cumulative Impacts

As described above under "Impacts (of alternative 1) on Cultural Landscape," a variety of human actions has affected and would continue to affect the landscape in and adjacent to the park. Extensive conversion of the battlefield for agricultural purposes and subsequent invasion of fallow fields by dense forest and invasive species have altered the historic landscape since the time of the battle in 1862. In addition to vegetative changes, deterioration and destruction of buildings has resulted in changes in the landscape, as did the construction of U.S. 62 and AR 72. Widening of U.S. 62 would pose some minor short-term adverse impacts on the battlefield landscape. Continued development in the region of the park would continue to affect the visual integrity of the landscape, although recent park actions have begun the gradual rehabilitation of the landscape to 1862 conditions.

Alternative 2 would contribute a moderate long-term beneficial component to cumulative impacts on the cultural landscape by rehabilitating key battle sites and the landscape features that defined the Pea Ridge battlefield.

Conclusion

Alternative 2 would have a moderate long-term beneficial impact on the cultural landscape at the park as a result of restoration or rehabilitation of the park's battlefield landscape. There would be no impairment of park resources and values.

Section 106 Summary

Under regulations of the Advisory Council on Historic Preservation (36 CFR 800.5 "Assessment of Adverse Impacts") the National Park Service finds that this

alternative would result in no adverse effects on the park's cultural landscape.

HISTORIC SITES AND STRUCTURES

Increased access and use of key battle sites and associated roads and traces could cause minor long-term adverse impacts on historic sites, and structures. Increased educational programs and interpretation would inform visitors of the sensitive nature of the park's cultural resources. Development of the new tour segment between the visitor center and Elkhorn Tavern could pose long-term minor adverse impacts on the historic road between U.S. 62 and Clemon' Field. Rehabilitation of the Telegraph Road would result in a long-term, major beneficial impact on this historic road. The Ford Road was paved when it was part of AR 72. Re-paving the road would have a long-term, moderate adverse impact by re-introducing modern fabric into the battlefield landscape.

Adding lands identified in the "Boundary Adjustments" section would provide NPS protection of additional segments of the Telegraph Road, resulting in a long-term, moderate to major beneficial impact on this historic road. Adding Area 3 would also improve visitor access to the Union trenches above Little Sugar Creek. This would increase the potential for long-term minor adverse impacts on these resources resulting from trampling and erosion. However, the trenches would be classified in the resources preservation management zone, thereby limiting visitor impacts on these resources. These actions would result in a minor to moderate long-term beneficial impact on historic sites, and structures.

Cumulative Impacts

Pea Ridge was once a thriving agricultural community. The loss of buildings and structures eliminated many historic resources related to the battle. The above actions, combined with interpretive programs at regional Civil War-related facilities would help inform visitors and regional residents of need to protect remaining historic sites, structures, and (site-specific) collections at Pea Ridge National Military Park.

The impacts of alternative 2, in conjunction with the impacts of other past, present, and reasonably foreseeable future actions described above, would result in minor long-term beneficial cumulative impacts on historic sites and structures.

Conclusion

Alternative 2 would have a minor to moderate long-term beneficial impact on historic sites, and structures associated with the battle. The Elkhorn Tavern and portions of the Telegraph Road and other historic roads and traces would be protected and rehabilitated. In addition, programs would be implemented to increase visitor awareness of the importance of historic sites in the park. There would be no impairment of park resources and values.

Section 106 Summary

Under regulations of the Advisory Council on Historic Preservation (36 CFR 800.5 "Assessment of Adverse Impacts"), the National Park Service finds that the selection of this alternative would result in no adverse effects on historic sites and structures. There would be no impairment of park resources and values.

MUSEUM COLLECTIONS

Under this alternative, the construction of new visitor facilities and museum space would provide for the display of expanded exhibits of the park's collections. This could pose the potential of minor long term adverse impacts on these resources due to increased exposure to the environment and to vandalism and theft. However, improvements in park facilities would provide better protection for the collections, which would have a long term minor to moderate beneficial impact on the park collections.

Cumulative Impacts

There would be no cumulative impacts on park collections.

Conclusion

This alternative would have a minor to long-term beneficial impact on the park's collections. The potential for minor adverse impacts due to exposure to the physical environment and to vandalism and theft would be offset by the development of improved facilities, protection strategies, and programs to increase visitor awareness and appreciation of the sensitive nature of these resources. There would be no impairment of park resources and values.

Section 106 Summary

Under regulations of the Advisory Council on Historic Preservation (36 CFR 800.5 "Assessment of Adverse Impacts") the National Park Service finds that this alternative would result in no adverse effects on the park's collections.

ETHNOGRAPHIC RESOURCES

Under alternative 2, continued maintenance of portions of the historic Telegraph Road would result in minor long-term beneficial impacts on the park's ethnographic resources.

Cumulative Impacts

A variety of past, present, and reasonably foreseeable actions have affected and would continue to affect the ethnographic resources of the park. Paving of portions of the Telegraph Road altered the historic character of this significant resource. The construction of U.S. 62 and AR 72 also affected the historic transportation patterns of the park's landscape. Increases in traffic and expansion of the area's transportation infrastructure could also pose some impacts on this resource.

Alternative 2 would contribute a minor short-term and long-term, beneficial component to cumulative impacts on the park's ethnographic resources. This would not constitute impairment of park resources and values.

Conclusion

Alternative 2 would have a minor, long-term, beneficial impact on the park's ethnographic resources due to the continued maintenance of portions of the Telegraph Road. These beneficial impacts would not constitute impairment of the park's resources and values.

Section 106 Summary

Under regulations of the Advisory Council on Historic Preservation (36 CFR 800.5 "Assessment of Adverse Impacts") the National Park Service finds that this alternative would result in no adverse

effects on the park's ethnographic resources.

SPECIAL STATUS SPECIES

The vegetation management program and rehabilitation of large portions of the battlefield landscape would reduce competition from non-native species and improve the habitat for the Ozark chinquapin a state Special Status Species. This would result in long-term, moderate beneficial impacts on the Ozark Chinquapin. As indicated in the "Affected Environment" chapter, federal threatened and endangered species are not known to occur in the park and would not be affected. Boundary modifications would have no effect on Special Status Species.

Cumulative Impacts

Modification of the lands around Pea Ridge has eliminated some habit for the Ozark chinquapin. The impacts of alternative 2, in conjunction with the impacts of other past, present, and reasonably foreseeable future actions described above, would result in negligible long-term beneficial impacts on special status species.

Conclusion

Alternative 2 would result in long-term moderate beneficial impacts on special status species. There would be no impairment of the park's resources and values.

PLANT COMMUNITIES

Under this alternative, increased enhancement of the battlefield landscape would promote the restoration of the composition and density of woodlands and prairie communities at Pea Ridge. This landscape enhancement would involve some tree cutting and vegetation clearing guided by the park's vegetation management plan. This would help restore the historic integrity of the natural environment at the park, resulting in a long-term moderate beneficial impact on plant communities. Widening the Telegraph Road between the Elkhorn Tavern and the visitor center would cause a 2-acre loss in woodland along the edge of the road corridor. Redeveloping the Ford Road would require removing some trees that have grown since AR 72 was rerouted. However, these trees are not features of the historic landscape and their removal would pose no adverse impacts on the landscape. Construction of the new visitor center and administrative and maintenance facilities could pose short-term minor to moderate adverse impacts on plant communities. Removal of the existing visitor center and administrative and maintenance facilities and the restoration of that area to native oak forest would result in a long-term, minor to moderate beneficial impact on plant communities.

Restoring historic traces would require removing a small number of trees that have grown since the historic period. This would result in a long-term negligible adverse impact on plant communities.

Boundary modifications would add about 300 acres to the park. Management in this area would help restore the composition and density of plant communities in these areas.

Cumulative Impacts

The plant communities outside the park have been fragmented with woodland remnants confined to watercourses, hollows, and steep slopes leading to ridges.

Level land has been cleared for agricultural or other purposes.

The impacts of alternative 2, in conjunction with the impacts of other past, present, and reasonably foreseeable future actions described above, would result in a minor long-term beneficial component to cumulative impacts on plant communities in the region of the park.

Conclusion

This alternative would result in a long-term, minor beneficial impact on plant communities as a result of increased enhancement of the battlefield landscape that would promote the composition and density of woodlands and prairie communities. There would be no impairment of park resources and values.

WETLANDS

Under this alternative, the removal of AR 72 could result in the resumption of historic drainage patterns and the potential restoration of approximately 100 acres of former wetlands in the Leetown area. This would result in a moderate beneficial impact on the park's wetlands.

Cumulative Impacts

Increasing development outside the park boundaries poses the potential of adverse impacts on wetlands in the vicinity of the park. The actions of alternative 2, in conjunction with the impacts of other past, present, and reasonably foreseeable future actions described above, would result in minor to moderate long-term beneficial cumulative impacts on wetlands in the region of the park.

Conclusion

Alternative 2 would result in a have a long-term, moderate beneficial impact on the park's wetlands.

VISITOR EXPERIENCE

Under this alternative, visitors would experience a connection with the history of Pea Ridge through direct contact with key battle areas. An evocative interpretive program would enhance visitor immersion in the actual battlefield, resulting in a long-term moderate beneficial impact on the visitor experience. Increased access to key battlefield sites, including development of new access to the Union trenches, and the rehabilitation of historic roads and traces would enhance visitor understanding and appreciation of the history and significance of the Battle of Pea Ridge, resulting in a long-term, moderate to major beneficial impact on the visitor experience. Incorporating the Ford Road into the tour route would maintain the visitor focus on the battlefield. Rerouting AR 72 outside the park boundaries would result in a long-term minor beneficial impact on the visitor experience. The expansion of U.S. 62 would pose moderate to major long-term adverse impacts on the visitor experience due to increased traffic and noise. The construction of a new visitor center in the southwest corner of the park away from U.S. 62 would have a major long-term beneficial impact on the visitor experience.

While visitation at Pea Ridge National Military Park has fluctuated in the past, it is reasonable to assume that visitation may increase with regional population growth. However, visitation increases anticipated over the life of this plan are expected to be minimal and therefore would have a negligible effect on the visitor experience. The

transportation study conducted to support this GMP indicates daily visitation would have to exceed 1,000 per day to exceed the capacity of existing facilities and force visitors to skip stops on the tour route. It is unlikely visitation would reach these levels during the life of this plan.

The addition of lands identified in the "Boundary Adjustments" section would allow visitors to experience the true extent of the battlefield, including supply areas and field hospitals, resulting in a minor long-term beneficial impact on the visitor experience.

Cumulative Impacts

The presence of U.S. 62 in the park boundaries would continue to create visual and auditory intrusions on the visitor experience in the park. The actions of alternative 2, in conjunction with the impacts of other past, present, and reasonably foreseeable future actions described above, would result in long-term, moderate to major beneficial cumulative impacts on the visitor experience.

Conclusion

This alternative would have a long-term, minor to moderate beneficial impact on the visitor experience at Pea Ridge. Visitor understanding and appreciation of the history and significance of the Battle of Pea Ridge would be enhanced by increasing access to key battle areas, including the area adjacent to the Union trenches, rehabilitating historic roads and traces, and adding battle-related lands to the park. There would be no impairment of park resources and values.

PARK OPERATIONS

Developing a new access to the Union trenches would enhance park operations. This access would be more easily controlled and monitored than the current access and parking on Little Sugar Creek, resulting in a long-term minor beneficial impact on park operations. Development of the new visitor center and administrative and maintenance facilities would consolidate all operations and administrative functions, leading to greater efficiency. Maintenance operations would have direct access to U.S. 62 without having to pass through the visitor parking lot, resulting in a long-term, minor beneficial impact on park operations. The construction of a new visitor center and administrative and maintenance facilities would have a long-term, moderate beneficial impacts on park operations.

Realigning the tour route and closing the tour road over Elkhorn Mountain would shorten the road by about 1 mile, reducing the time required for patrols and maintenance activities, resulting in a long-term, minor beneficial impact on park operations.

Closing the North Old Wire Road would eliminate the need for patrols of the area and administration and maintenance activity to clean up unauthorized dumping. This action would eliminate a costly security and maintenance activity, providing. Eliminating through traffic on AR 72 would also reduce security patrols. These actions would result in minor to moderate long term beneficial impacts on park operations.

The addition of lands identified in the "Boundary Adjustments" section would require slight increases in patrol and maintenance.

Cumulative Impacts

U.S. 62 would continue to enhance park operations by providing access to the outside boundaries of the park. The expansion of the highways could pose impacts on lands under park jurisdiction. The construction of the North Old Wire Road put additional pressure on park ranger and maintenance activities. The actions of alternative 2, in conjunction with the impacts of other past, present, and reasonably foreseeable actions described above, would result in minor to moderate long-term beneficial cumulative impacts on park operations.

Conclusion

This alternative would have a minor to moderate long-term beneficial impact on park operations. The closure of AR 72 and the North Old Wire Road would reduce pressures on park ranger and maintenance activities. Consolidation of administration functions and creation of a new maintenance facility would improve efficiency for both activities. There would be no impairment of park resources and values.

ACCESS AND CIRCULATION

Under this alternative, the tour road would be realigned to focus visitor access on the battlefield landscape. New access to the Union trenches from U.S. 62 would allow visitors to experience these resources, resulting in a long-term minor, beneficial impact on access. The widening of U.S. 62 and the development of access to the new visitor facilities would have a long-term, moderate beneficial impact on park access and circulation. The removal of AR 72 would have a long-term negligible adverse impact on visitors' ability to access and use the park. Removal of the North Old Wire Road would eliminate uncontrolled access through the park while having a long-term, negligible adverse effect on park access. The use of historic trails and traces into a trail system would have a minor long-term beneficial impact on visitor access to key battle sites and enhance overall appreciation of the park.

Cumulative Impacts

The development of U.S. 62 provided the primary access to the historic battlefield. However, increased traffic flow on this highway would affect the ability of eastbound travelers to access the park. The expansion of this highway and development of a turn lane could have a beneficial impact on visitor access.

The impacts of alternative 2, in conjunction with the impacts of other past, present, and reasonably foreseeable future actions described above, would result in minor long-term beneficial cumulative impacts on park access and circulation.

Conclusion

Alternative 2 would have a minor to moderate long-term beneficial impact on park access and circulation. The realigned tour road would focus visitor activities in the battlefield landscape. There would be no impairment of park resources and values.

IMPACTS OF ALTERNATIVE 3: WINDOW INTO THE PAST THROUGH INTERPRETATION

ARCHEOLOGICAL RESOURCES

Under alternative 3, increased visitor access to key battle areas could result in inadvertent discovery of resources, theft of vandalism, leading to long-term negligible to minor adverse impacts on the park's archeological resources. Realigning the tour road and enhancing the battlefield landscape, including rehabilitating historic roads and traces and developing new access to the Union trenches, could expose previously undiscovered archeological resources, resulting in minor, long-term adverse impacts on these resources. Construction of the new visitor center and administrative and maintenance facilities could result in minor, short-term adverse impacts on archeological resources.

Archeological monitoring, limited access to sensitive sites, ongoing archeological surveys, and educational programs and educational programs informing visitors about the park's archeological resources would result in long-term, minor to moderate beneficial impacts on these resources. Archeological surveys and monitoring would precede any new efforts to enhance the appearance of the battlefield landscape. The addition of lands identified in the "Boundary Adjustments" section could provide additional protection for archeological resources in these areas, resulting in a minor to moderate long-term beneficial impact on archeological resources.

Cumulative Impacts

As described in alternative 3, a variety of human actions has affected and would continue to affect archeological resources in the region of the park. Agriculture and other activities may have disturbed below ground resources in and near the park, resulting in minor to moderate long-term adverse impacts on these resources.

Construction of park roads and structures, including the tour road, led to the discovery of archeological resources related to the battle, resulting in minor long-term adverse impacts on archeological resources.

Future excavation and grading for widening U.S. 62 in its existing right-of-way might result in the discovery of historic or prehistoric archeological resources, potentially leading to long-term minor to moderate adverse impacts. Archeological monitoring of construction of U.S. 62 would identify resources that might be affected. However, current archeological and historical data indicates that widening U.S. 62 in its current alignment poses fewer potential adverse impacts on battle-related resources in and around the park than the construction of new rights-of-way for the highway.

Other potential impacts could result from residential or other development that could disturb or destroy archeological artifacts in the region.

The impacts of alternative 3, in conjunction with the impacts of other past, present, and reasonably foreseeable future actions described above, would result in minor, long-term adverse cumulative impacts on archeological resources at the park.

Conclusion

This alternative would have minor, long-term beneficial impacts on archeological resources. Limiting visitor access to the battlefield and avoidance of all known archeological sites would provide for additional protection for archeological resources.

Section 106 Summary

Under regulations of the Advisory Council on Historic Preservation (36 CFR 800.5 "Assessment of Adverse Impacts") the National Park Service finds that this alternative would result in no adverse effects on archeological resources. There would be no impairment of park resources and values.

CULTURAL LANDSCAPE

Under alternative 3, virtually all of the battlefield landscape would be managed and preserved as part of the Arkansas Highlands zone, resulting in a long-term negligible to minor beneficial impact on the cultural landscape. The landscape in this zone would be less reflective of 1862 conditions. Limited access to the battlefield landscape would minimize modern intrusions on the battlefield landscape and thereby enhance the historic landscape for visitors viewing the battlefield from interpretive areas, resulting in a minor long-term beneficial impact on the landscape.

The removal of the Old North Wire Road would remove a modern intrusion and thereby enhance the appearance of the historic landscape, resulting in a negligible to minor beneficial impact. U.S. 62 would remain as a modern intrusion in the historic landscape. A portion of AR 72 would be incorporated in a realignment of the tour road. The remainder of AR 72 would be removed. The removal of the existing visitor center and administrative and maintenance facilities from the battle-related landscape would enable park management to rehabilitate that area of the park to a conditions resembling its 1862 appearance.

The portion of the existing tour road that passes through the Leetown Battlefield would be removed. The lands identified in the "Boundary Adjustments" section for the park contain significant battle-related sites. Their addition would enhance the overall cultural landscape while providing protection from visual and auditory intrusions.

Cumulative Impacts

A variety of human actions has affected and would continue to affect the landscape at and in the vicinity of the park. Extensive conversion of the battlefield for agricultural purposes and subsequent invasion of fallow fields by dense forest and invasive species have altered the historical landscape since the time of the battle in 1862. In addition to vegetative changes, deterioration and destruction of buildings have altered and would continue to alter the landscape. The construction of U.S. 62 and AR 72 affected the historic landscape.

Continued development in the region of the park could affect the visual integrity of the landscape, although recent park actions have begun the gradual restoration of the landscape to 1862 conditions, resulting in a minor long-term beneficial impact on the landscape. Widening of U.S. 62 would pose some minor short-term adverse impacts on the battlefield landscape. The impacts of alternative 3, in conjunction with the impacts of past,

present, and reasonably foreseeable future actions described above, would result in minor long-term adverse impacts on the cultural landscape. However, alternative 3 would contribute a relatively small increment to the overall cumulative impact.

Conclusion

This alternative would have a minor long-term beneficial impact on the cultural landscape at the park through rehabilitation of the battlefield landscape. There would be no impairment of park resources and values.

Section 106 Summary

Under regulations of the Advisory Council on Historic Preservation (36 CFR 800.5 "Assessment of Adverse Impacts") the National Park Service finds that this alternative would result in no adverse effects on archeological resources.

HISTORIC SITES AND STRUCTURES

Under alternative 3, an increased emphasis on education and interpretation and less access and use of the key battle sites and associated roads and traces would result in minor long-term beneficial impacts on historic sites and structures. Increased educational programs and interpretation would inform visitors of the sensitive nature of the park's cultural resources. Widening the Telegraph Road between the visitor center and Elkhorn Tavern would result in a moderate long-term adverse impact on the road. Paving the Ford Road would result in a minor long-term adverse impact by introducing modern fabric into the battlefield landscape.

The addition of lands identified in the "Boundary Adjustments" section would provide protection for additional segments of the Telegraph Road by placing it under the purview of the NPS, resulting in a long-term minor to moderate beneficial impact on this resource. The addition of lands in Area 3 would also improve visitor access to the area adjacent to the Union trenches above Little Sugar Creek. This would increase the potential for minor long-term adverse impacts on these resources resulting from erosion and vandalism. However, the trenches would be located in the resources preservation management zone, thereby limiting visitor impacts on these resources.

Cumulative Impacts

Pea Ridge was once a thriving agricultural community. The gradual removal of buildings and structures eliminated many historical resources related to the battle. The impacts of alternative 3, in conjunction with other past, present, and reasonably foreseeable future actions, would result in long-term, minor, adverse cumulative impacts on historic sites and structures.

Conclusion

This alternative would have a minor, long-term, beneficial impact on the park's historic sites and structures. In addition, programs would be implemented to increase visitor awareness of the importance of historic sites in the park. There would be no impairment of park resources and values.

Section 106 Summary

Under regulations of the Advisory Council on Historic Preservation (36 CFR 800.5 "Assessment of Adverse Impacts") the National Park Service finds that this

alternative would result in no adverse effects on historic sites and structures.

MUSEUM COLLECTIONS

Under this alternative, the construction of new visitor facilities and museum space would provide for the display of expanded exhibits of the park's collections. This could pose the potential of minor long term adverse impacts on these resources due to increased exposure to the environment and to vandalism and theft. However, improvements in park facilities would provide better protection for the collections, which would have a long term minor to moderate beneficial impact on the park collections.

Cumulative Impacts

There would be no cumulative impacts on park collections.

Conclusion

This alternative would have a minor to long-term beneficial impact on the park's collections. The potential for minor adverse impacts due to exposure to the physical environment and to vandalism and theft would be offset by the development of improved facilities, protection strategies, and programs to increase visitor awareness and appreciation of the sensitive nature of these resources. There would be no impairment of park resources and values.

Section 106 Summary

Under regulations of the Advisory Council on Historic Preservation (36 CFR 800.5 "Assessment of Adverse Impacts") the National Park Service finds that this alternative would result in no adverse effects on the park's collections.

ETHNOGRAPHIC RESOURCES

Under alternative 3, continued maintenance of portions of the historic Telegraph Road would result in minor long-term beneficial impacts on the park's ethnographic resources.

Cumulative Impacts

A variety of past, present, and reasonably foreseeable actions have affected and would continue to affect the ethnographic resources of the park. Paving of portions of the Telegraph Road altered the historic character of this significant resource. The construction of U.S. 62 and AR 72 also affected the historic transportation patterns of the park's landscape. Increases in traffic and expansion of the area's transportation infrastructure could also pose some impacts on this resource.

Alternative 3 would contribute a minor short-term and long-term, beneficial component to cumulative impacts on the park's ethnographic resources. This would not constitute impairment of park resources and values.

Conclusion

Alternative 3 would have a minor, long-term, beneficial impact on the park's ethnographic resources due to the continued maintenance of portions of the Telegraph Road. These beneficial impacts would not constitute impairment of the park's resources and values.

Section 106 Summary

Under regulations of the Advisory Council on Historic Preservation (36 CFR 800.5 "Assessment of Adverse Impacts") the National Park Service finds that this alternative would result in no adverse

effects on the park's ethnographic resources.

SPECIAL STATUS SPECIES

The vegetation management program and rehabilitation of the battlefield landscape as part of the Arkansas Highlands zone would reduce competition from non-native species and improve the habitat for the Ozark chinquapin, a state special status species. This would result in minor long-term beneficial impacts on the Ozark Chinquapin. As indicated in the "Affected Environment" chapter, federal threatened and endangered species are not known to occur in the park and would not be affected. Boundary modifications would have no effect on special status species.

Cumulative Impacts

Modification of the lands around Pea Ridge has eliminated some habit for the Ozark chinquapin. The impacts of alternative 3, in conjunction with the impacts of other past, present, and reasonably foreseeable future actions described above, would result in negligible long-term beneficial impacts on special status species.

Conclusion

This alternative would result in minor, long-term, beneficial impacts on special status species. There would be no impairment of the park's resources and values.

PLANT COMMUNITIES

Under alternative 3, virtually all of the park would be managed as part of the Arkansas Highlands zone. Natural processes would predominate according to guidelines of the vegetation management program. This would result in minor long-term beneficial impacts on plant communities. The development of a new segment of the tour route between the Elkhorn Tavern and the visitor center would cause a loss of about 4 acres of second growth woodland. This loss would be offset by the removal of segments of AR 72 and North Old Wire Road, which would result in the restoration of about 5 acres of additional woodland community. Construction of the new visitor center and administrative and maintenance facilities could pose short-term minor to moderate adverse impacts on plant communities. Removal of the existing visitor center and administrative and maintenance facilities and the restoration of that area to native oak forest would result in a long-term, minor to moderate beneficial impact on plant communities.

Redeveloping the Ford Road would require removing a small number of trees. These would be non-native species and eastern red cedar. Some trees have grown since AR 72 was rerouted. Restoration of certain historic traces would result in some vegetation removal. These actions would result in a minor long-term adverse impact on plant communities.

Boundary modifications would add about 300 acres to the park. Management in this area would help restore the composition and density of plant communities in these areas, resulting in a long-term, minor to moderate, beneficial impact.

Cumulative Impacts

As in alternative 1, past land use practices such as agriculture have fragmented plant communities in the park vicinity. Woodland remnants confined to watercourses, hollows, and slopes leading to ridges are all that remain of what were once

extensive climax communities. Park development resulted in some clearing, which further fragmented the communities in the area.

The impacts of alternative 3, in conjunction with the impacts of other past, present, and reasonably foreseeable future actions described above, would result in minor long-term beneficial cumulative impacts on plant communities in the region of the park.

Conclusion

Alternative 3 would result in a moderate long-term beneficial impact on plant communities by promoting the restoration of the composition and density of woodlands and prairie communities. The loss of woodland from development of a new segment of the tour route between the Elkhorn Tavern and the visitor center would be negligible and offset by the reestablishment of plant communities along segments of AR 72 and the North Old Wire Road that would be removed. There would be no impairment of park resources and values.

WETLANDS

Under this alternative, the removal of AR 72 could result in the resumption of historic drainage patterns and the potential restoration of approximately 100 acres of former wetlands in the Leetown area. This would result in a moderate beneficial impact on the park's wetlands.

Cumulative Impacts

Increasing development outside the park boundaries poses the potential of adverse impacts on wetlands in the vicinity of the park. The actions of alternative 3, in conjunction with the impacts of other past, present, and reasonably foreseeable future actions described above, would result in minor to moderate long-term beneficial cumulative impacts on wetlands in the region of the park.

Conclusion

Alternative 3 would result in a moderate long-term beneficial impact on the park's wetlands.

VISITOR EXPERIENCE

Under alternative 3, visitors would experience Pea Ridge from the Education and Interpretation zone on the periphery of the battlefield, resulting in a minor long-term beneficial impact on the visitor experience. A portion of AR 72 would be incorporated in a realignment of the tour road, resulting in a negligible long-term beneficial impact. The remainder of AR 72 would be removed, which would result in a minor long-term beneficial impact on the visitor experience. The Elkhorn Mountain portion of the tour road would be removed, leading to a reduction in scenic driving and the loss of the West Overlook. This would result in a minor, long-term adverse impact on the visitor experience. Development of new access to the Union trenches would enhance visitor understanding of the evolution of the battle and strategies and tactics of the Union and Confederate commanders, resulting in a minor to moderate long-term beneficial impact on the visitor experience.

The expansion of U.S. 62 would pose moderate to major long-term adverse impacts on the visitor experience due to increased traffic and noise. The construction of a new visitor center in the southwest corner of the park away from U.S. 62 would have a long-term major beneficial impact on the visitor experience. While

visitation at Pea Ridge National Military Park has fluctuated in the past, it is reasonable to assume that visitation may increase with regional population growth. However, visitation increases anticipated over the life of this plan would have a negligible adverse effect on the visitor experience. The transportation study conducted to support this GMP indicates daily visitation would have to exceed 1,000 per day to exceed the capacity of existing facilities and force visitors to skip stops on the tour route. It is unlikely visitation would reach these levels during the life of this plan.

The addition of lands identified in the "Boundary Adjustments" section would enhance the visitor experience by allowing visitors to experience the true extent of the battlefield, including supply areas and field hospitals. This would result in a minor, long-term beneficial impact on the visitor experience.

Cumulative Impacts

A variety of human actions has affected and would continue to affect visitor use of the park. The development of U.S. 62 and AR 72 provided access to the historic battlefield. However, increased traffic flow could increase the frequency of visual auditory intrusions from these roads and adversely affect visitor appreciation of the park. The impacts of alternative 3, in conjunction with the impacts of other past, present, and reasonably foreseeable future actions described above, would result in minor long-term beneficial cumulative impacts on the visitor experience.

Conclusion

This alternative would have a moderate long-term beneficial impact on the visitor experience at the park. There would not be impairment of park resources and values.

PARK OPERATIONS

Under this alternative, an increased emphasis on interpretation and education would require additional park management and staff time to develop and implement new interpretive programs, resulting in a minor, long-term, adverse impact on park operations. New access to the Union trenches from U.S. 62 would enhance operations because the access route would be more easily controlled and monitored than the current access along Little Sugar Creek. This would result in a minor long-term beneficial impact on operations. The closure of the Elkhorn Mountain portion of the tour road would result in a minor, long-term, beneficial impact on park operations by reducing requirements for patrol and maintenance activities. Development of the new visitor center and administrative and maintenance facilities would consolidate all operations and administrative functions, leading to greater efficiency and would result in a moderate, long-term, beneficial impact on park operations.

The North Old Wire Road would remain open, which requires ranger and maintenance activities. The addition of lands included in the "Boundary Adjustments" section would require a slight increase in patrol and maintenance activities. These demands on park staff time would result in a negligible to minor adverse impact on park operations.

Cumulative Impacts

A variety of past, present, and reasonably foreseeable human actions have affected and would continue to affect operations at Pea Ridge. The construction of U.S. 62

would continue to enhance park operations by providing direct access to the park. Increased traffic on the highway in the future could affect the ability of eastbound travelers turning in front of oncoming traffic to enter the park, resulting in a minor, long-term adverse impact on park operations. The actions of alternative 3, in conjunction with the impacts of other past, present, and reasonably foreseeable future actions, would result in negligible long-term, beneficial impacts on park operations.

This alternative would contribute a minor, long-term beneficial component to cumulative impacts on park operations.

Conclusion

This alternative would have a minor long-term beneficial impact on park operations. There would be no impairment of park resources and values.

ACCESS AND CIRCULATION

Under this alternative, the tour road would be rerouted to guide visitors along the periphery of key battle sites. The new tour would incorporate the historic Ford Road, portions of AR 72, and a new segment between Elkhorn Tavern and the visitor center. There would be less emphasis on rehabilitation of historic trails and traces in this alternative. The Old North Wire Road would provide additional park access. Access to the Union trenches would be improved.

The widening of U.S. 62 and the development of access to the new visitor facilities would have a moderate long-term beneficial impact on park access and circulation.

Cumulative Impacts

A variety of past, present, and reasonably foreseeable future actions have affected and would continue to affect access and circulation at Pea Ridge. The development of U.S. 62 and AR 72 improved access to the park. Increased traffic flow on U.S. 62 could affect the ability of eastbound travelers to access the park. The impacts of alternative 3, in conjunction with the impacts of other past, present, and reasonably foreseeable future actions would result in minor long-term beneficial cumulative impacts on park access and circulation.

Conclusion

This alternative would have moderate, long-term beneficial impacts on park access and circulation. Realignment of the tour road would focus visitor access on the periphery of key battle sites. Access to the Union trenches would be improved. There would be no impairment of park resources and values.

IMPACTS OF ALTERNATIVE 4: EXPLORATION AND DISCOVERY

ARCHEOLOGICAL RESOURCES

Under alternative 4, increased visitor access to key battle areas could result in an inadvertent discovery of resources, theft, or vandalism, leading to long-term negligible to minor adverse impacts on the park's archeological resources. Realigning the tour road and enhancing the battlefield landscape, including rehabilitating historic roads and traces and developing new access to the Union trenches, could expose previously undiscovered archeological resources, resulting in minor long-term adverse impacts on these resources. Construction of the new visitor center and administrative and maintenance facilities could result in minor short-term adverse impacts on archeological resources.

Archeological monitoring, limited access to sensitive sites, ongoing archeological surveys, and educational programs informing visitors about the park's archeological resources would result in long-term minor to moderate beneficial impacts on these resources. Archeological surveys and monitoring would precede any new efforts to enhance the appearance of the battlefield landscape. The addition of lands identified in the "Boundary Adjustments" section could provide additional protection for archeological resources in these areas, resulting in a long-term minor to moderate beneficial impact on archeological resources.

Cumulative Impacts

As described in alternative 4, a variety of human actions has affected and would continue to affect archeological resources in the region of the park. Agriculture and other activities may have disturbed below-ground resources in and near the park, resulting in minor long-term to moderate adverse impacts on these resources.

Construction of park roads and structures, including the tour road, led to the discovery of archeological resources related to the battle, resulting in minor long-term adverse impacts on archeological resources.

Future excavation and grading for widening U.S. 62 in its existing right-of -way might result in the discovery of historic or prehistoric archeological resources, which would potentially lead to minor to moderate long-term adverse impacts. Archeological monitoring of construction of U.S. 62 would identify resources that might be affected. However, current archeological and historical data indicates that widening U.S. 62 in its current alignment poses fewer potential adverse impacts on battle-related resources in and around the park than the construction of new rights-of -way for the highway.

Other potential impacts could result from residential or other development that could disturb or destroy archeological artifacts in the region.

The impacts of alternative 4, in conjunction with the impacts of other past, present, and reasonably foreseeable future actions described above, would result in minor long-term adverse cumulative impacts on archeological resources at the park.

Conclusion

This alternative would result in negligible to minor, long-term, adverse impacts on archeological resources. There would be

no impairment of park resources and values.

Section 106 Summary

Under regulations of the Advisory Council on Historic Preservation (36 CFR 800.5 "Assessment of Adverse Impacts") the National Park Service finds that this alternative would result in no adverse effects on archeological resources.

CULTURAL LANDSCAPES

In this alternative, key battlefield sites would be included in the Pea Ridge Battleground zone. Among these are: the site associated with the Battle of Leetown; a portion of Cross Timber Hollow; the Elkhorn Tavern area; Welfley's Knoll, the site of Pratt's Store and General Curtis' headquarters; and the area around the Union trenches. Approximately 25% of the park would be zoned in the Pea Ridge Battleground zone, less than in alternative 2. Forest densities would be managed to resemble those reported in first-hand accounts of the battle. Reestablishment of the historic fencelines and maintenance or reestablishment of open fields and prairie would result in a minor to moderate long-term beneficial impact on the landscape. The removal of AR 72 would enhance the appearance of the historic landscape, resulting in a negligible to minor long-term beneficial impact on the battlefield landscape. The addition of lands identified in the "Boundary Adjustments" section would enhance the cultural landscape by including critical battle-related lands within the park, resulting in minor, long-term beneficial impacts.

Cumulative Impacts

As described above under "Impacts (of Alternative 1) on Cultural Landscape," a variety of human actions has affected and would continue to affect the landscape in and adjacent to the park. Extensive conversion of the battlefield for agricultural purposes and subsequent invasion of fallow fields by dense forest and invasive species have altered the historic landscape since the time of the battle in 1862. In addition to vegetative changes, deterioration and destruction of buildings have altered and continue to alter the landscape. The construction of U.S. 62 and AR 72 affected the historic landscape. Continued development in the region of the park affects the visual integrity of the landscape, although recent park actions have begun the gradual rehabilitation of the landscape to 1862 conditions, resulting in negligible to minor long-term beneficial impacts on the battlefield landscape. The impacts of alternative 4, in conjunction with past, present, and reasonably foreseeable future actions would result in minor long-term beneficial cumulative impacts on the cultural landscape by rehabilitating key battle sites and the landscape features that defined the Pea Ridge battlefield.

Conclusion

Alternative 4 would have a moderate long-term beneficial impact on the cultural landscape at the park as a result of restoration or rehabilitation of the park's battlefield landscape. There would be no impairment of park resources and values.

Section 106 Summary

Under regulations of the Advisory Council on Historic Preservation (36 CFR 800.5 "Assessment of Adverse Impacts") the National Park Service finds that this alternative would result in no adverse effects on the park's battlefield landscape.

HISTORIC SITES AND STRUCTURES

This alternative would combine an increased emphasis on education and interpretation with increased access and use of the key battle sites and associated roads and traces. However, access to these sites would be less extensive than in alternative 2, resulting in negligible long-term adverse impact on these resources. Educational programs emphasizing the sensitive nature of these resources would help minimize the potential for impacts on historic sites and structures. Repaving the Ford Road would have minor long-term adverse impacts by introducing modern fabric into the battlefield landscape.

The addition of lands identified in the "Boundary Adjustments" section would provide protection for additional segments of the Telegraph Road by placing them under the NPS purview, resulting in a minor long-term beneficial impact on this resource. The addition of lands in Area 3 would also improve visitor access to the area adjacent to the Union trenches above Little Sugar Creek. This would increase the potential for minor long-term adverse impacts on these resources due to erosion and vandalism. However, the trenches would be located in the resources preservation management zone, thereby limiting visitor impacts on these resources.

Cumulative Impacts

Pea Ridge was once a thriving agricultural community. The gradual removal of buildings and structures eliminated many historical resources related to the battle, resulting in major long-term adverse impacts on historic sites and structures. The actions of alternative 4, in conjunction with other past, present, and reasonably foreseeable future actions, would result in negligible long-term beneficial cumulative impacts on historic sites and structures in the region.

Conclusion

This alternative would have a minor to moderate long-term beneficial impact on the park's historic sites and structures. The Elkhorn Tavern and historic roads and traces would be rehabilitated. In addition, programs would be implemented to increase visitor awareness of the importance of historic sites in the park. There would be no impairment of park resources and values.

Section 106 Summary

Under regulations of the Advisory Council on Historic Preservation (36 CFR 800.5 "Assessment of Adverse Impacts") the National Park Service finds that this alternative would result in no adverse effects on historic sites and structures.

MUSEUM COLLECTIONS

This alternative would combine an increased emphasis on education and interpretation. The construction of new visitor facilities and museum space would provide for the display of expanded exhibits of the park's collections. This could pose the potential of minor long term adverse impacts on these resources due to increased exposure to the environment and to vandalism and theft. However, improvements in park facilities would provide better protection for the collections, which would have a long term minor to moderate beneficial impact on the park collections.

Cumulative Impacts

There would be no cumulative impacts on park collections.

Conclusion

This alternative would have a minor to long-term beneficial impact on the park's collections. The potential for minor adverse impacts due to exposure to the physical environment and to vandalism and theft would be offset by the development of improved facilities, protection strategies, and programs to increase visitor awareness and appreciation of the sensitive nature of these resources. There would be no impairment of park resources and values.

Section 106 Summary

Under regulations of the Advisory Council on Historic Preservation (36 CFR 800.5 "Assessment of Adverse Impacts") the National Park Service finds that this alternative would result in no adverse effects on the park's collections.

ETHNOGRAPHIC RESOURCES

Under alternative 4, continued maintenance of portions of the historic Telegraph Road would result in minor long-term beneficial impacts on the park's ethnographic resources.

Cumulative Impacts

A variety of past, present, and reasonably foreseeable actions have affected and would continue to affect the ethnographic resources of the park. Paving of portions of the Telegraph Road altered the historic character of this significant resource. The construction of U.S. 62 and AR 72 also affected the historic transportation patterns of the park's landscape. Increases in traffic and expansion of the area's transportation infrastructure could also pose some impacts on this resource.

Alternative 4 would contribute a minor short-term and long-term beneficial component to cumulative impacts on the park's ethnographic resources. This would not constitute impairment of park resources and values.

Conclusion

Alternative 4 would have a minor, long-term, beneficial impact on the park's ethnographic resources due to the continued maintenance of portions of the Telegraph Road. These beneficial impacts would not constitute impairment of the park's resources and values.

Section 106 Summary

Under regulations of the Advisory Council on Historic Preservation (36 CFR 800.5 "Assessment of Adverse Impacts") the National Park Service finds that this alternative would result in no adverse effects on the park's ethnographic resources.

SPECIAL STATUS SPECIES

The vegetation management program would reduce competition and improve the habitat for the Ozark chinquapin a state special status species. Combined with actions described in the management zones, this would result in a minor to moderate long-term beneficial impact on the Ozark Chinquapin. As indicated in the "Affected Environment" chapter, federal threatened and endangered species are not known to occur in the park and would not be affected. Boundary modifications

would have no effect on special status species.

Cumulative Impacts

Modification of the lands around Pea Ridge has eliminated some habit for the Ozark chinquapin. The impacts of alternative 4, in conjunction with the impacts of other past, present, and reasonably foreseeable future actions described above, would result in negligible long-term beneficial impacts on special status species.

Conclusion

This alternative would result in a minor to moderate long-term beneficial impact on the Ozark Chinquapin. There would be no impairment of park resources and values.

PLANT COMMUNITIES

Under this alternative, increased enhancement of the battlefield landscape through tree cutting and vegetative clearing would promote the restoration of the composition and density of woodlands and prairie communities at Pea Ridge, resulting in a minor long-term beneficial impact on plant communities. The quality of the remaining oak woodland community would improve as the vegetation management program is implemented, resulting in a minor long-term beneficial impact. Redeveloping the Ford Road would require removing some trees that have grown since AR 72 was rerouted, which would result in negligible, long-term, adverse impacts. Restoring historic traces would require removing some trees that have grown since the historic period, resulting in negligible long-term adverse impacts. Construction of the new visitor center and administrative and maintenance facilities could pose short-term minor to moderate adverse impacts on plant communities. Removal of the existing visitor center and administrative and maintenance facilities and the restoration of that area to native oak forest would result in a long-term, minor to moderate beneficial impact on plant communities.

Boundary modifications would add about 300 acres to the park. Management in this area would help restore the composition and density of plant communities in these areas, which would result in negligible to minor long-term beneficial impacts.

Cumulative Impacts

The plant communities outside the park are fragmented with woodland remnants confined to watercourses, hollows, and steep slopes leading to ridges. Level land has been cleared for agricultural purposes. The actions of alternative 4, in conjunction with other past, present, and reasonably foreseeable future actions, would result in minor adverse cumulative impacts on plant communities in the region of the park. However, alternative 4 would contribute a relatively small increment to the overall cumulative impact.

Conclusion

This alternative would result in long-term, minor to moderate, beneficial impacts on plant communities as a result of increased enhancement of the battlefield landscape, which would promote the improved composition and density of woodlands and prairie communities. There would be no impairment of park resources and values.

WETLANDS

Under this alternative, the removal of AR 72 could result in the resumption of his-

toric drainage patterns and the potential restoration of approximately 100 acres of former wetlands in the Leetown area. This would result in a moderate beneficial impact on the park's wetlands.

Cumulative Impacts

Increasing development outside the park boundaries poses the potential of adverse impacts on wetlands in the vicinity of the park. The actions of alternative 4, in conjunction with the impacts of other past, present, and reasonably foreseeable future actions described above, would result in minor to moderate long-term beneficial cumulative impacts on wetlands in the region of the park.

Conclusion

Alternative 4 would result in a moderate long-term beneficial impact on the park's wetlands.

VISITOR EXPERIENCE

Under this alternative, visitors would choose between connections with the history of Pea Ridge through direct contact with key battle areas or a more structured educational and interpretive program on the periphery of the historic battlefield. This would result in a moderate to major, long-term, beneficial impact on the visitor experiences. Increased access to key battlefield sites, including development of new access to the Union trenches, and the rehabilitation of historic roads and traces would enhance visitor understanding and appreciation of the history and significance of the Battle of Pea Ridge. While access to the battlefield would not be as great as under alternative 2, a more detailed and informative interpretive experience would enhance the experience, resulting in a moderate to major long-term beneficial impact.
AR 72 would be closed and rerouted outside the park. This would enhance the visitor experience by eliminating visual and auditory impacts resulting from highway traffic. Rehabilitating the Ford Road and incorporating it into the tour route would maintain the visitor focus on the battlefield.

The expansion of U.S. 62 would pose moderate to major long-term adverse impacts on the visitor experience due to increased traffic and noise. The construction of a new visitor center in the southwest corner of the park away from U.S. 62 would have a long-term major beneficial impact on the visitor experience.

While visitation at Pea Ridge National Military Park has fluctuated in the past, it is reasonable to assume that visitation may increase with regional population growth. However, visitation increases anticipated over the life of this plan would have a negligible effect on the visitor experience. The transportation study conducted to support this GMP indicates daily visitation would have to exceed 1,000 per day to exceed the capacity of existing facilities and force visitors to skip stops on the tour route. It is unlikely visitation would reach these levels during the life of this plan.

The addition of lands identified in the "Boundary Adjustments" section would enhance the visitor experience by allowing visitor to experience the true extent of the battlefield, including supply areas and field hospitals, resulting in a minor long-term beneficial impact on visitor experience.

Cumulative Impacts

The development of U.S. 62 and AR 72 created visual and auditory intrusions on

the visitor experience in the park, resulting in a minor, long-term adverse impact on the visitor experience. Increased traffic flows on U.S. 62 could pose moderate long-term impacts on the visitor experience. The impacts of alternative 4, in conjunction with other past, present, and reasonably foreseeable future actions, would contribute a minor long-term beneficial component to cumulative impacts on the visitor experience.

Conclusion

This alternative would have a moderate to major long-term beneficial impact on the visitor experience at Pea Ridge. Visitor understanding and appreciation of the history and significance of the Battle of Pea Ridge would be enhanced by increasing access to key battle areas, including the area adjacent to the Union trenches, rehabilitating historic roads and traces, and adding battle-related lands to the park. There would be no impairment of park resources and values.

PARK OPERATIONS

Developing a new access to the Union trenches would enhance park operations. This access would be more easily controlled and monitored than the current access and parking on Little Sugar Creek, although there would be some additional operations and maintenance associated with the new access road and parking area. This would result in a minor long-term beneficial impact on park operations.

The construction of a new visitor center and administrative and maintenance facilities would have a moderate long-term beneficial impact on park operations. Realignment of the tour route and retention of the tour road over Elkhorn Mountain would increase the overall time required for patrols and maintenance activities, resulting in a negligible to minor adverse impact on park operations. Closing the North Old Wire Road would eliminate the need for patrols of the area and maintenance activities to clean up unauthorized dumping. This would result in a minor to moderate long-term beneficial impacts on operations. Eliminating through traffic on AR 72 would also reduce the need for security patrols, resulting in a negligible long-term beneficial impact on operations.

The addition of lands identified in the "Boundary Adjustments" section would require slight increases in patrol and maintenance, resulting in a negligible, long-term, adverse impact on park operations.

Cumulative Impacts

A variety of past, present, and reasonably foreseeable future actions have affected and would continue to affect operations at Pea Ridge. U.S. 62 enhances park operations by providing access to the outside boundaries of the park. The construction of the North Old Wire Road put additional pressure on park ranger and maintenance activities to maintain patrols and control unauthorized dumping. The actions of alternative 4, in conjunction with these past, present, and reasonably foreseeable future actions, would result in negligible to minor long-term beneficial cumulative impacts on park operations.

Conclusion

This alternative would have a minor to moderate, long-term, beneficial impact on park operations. The closure of AR 72, the North Old Wire Road, and the Little Sugar Creek access to the Union trenches would reduce pressures on park ranger and

maintenance activities. Consolidation of administration functions and creation of a new maintenance facility would improve efficiency for both activities. There would be no impairment of park resources and values.

ACCESS AND CIRCULATION

Under this alternative, the tour road would be realigned to focus visitor access on the battlefield landscape, but the portion of the tour road that currently crosses Elkhorn Mountain would be retained in order to maximize visitor access to the park. New access to the Union trenches from U.S. 62 would allow visitors to experience these resources, resulting in a minor, long-term, beneficial impact on access to the park. The removal of AR 72 would result in negligible long-term adverse impacts on visitors' ability to access and use the park. Removal of the North Old Wire Road would eliminate uncontrolled access through the park while having a negligible long-term adverse effect on park access.

The widening of U.S. 62 and the development of access to the new visitor facilities would have a moderate long-term beneficial impact on park access and circulation.

The incorporation of historic trails and traces in the trail system would improve visitor access to key battle sites and enhance overall appreciation of the park, resulting in a minor, long-term, beneficial impact on access.

Cumulative Impacts

A variety of human actions has affected and would continue to affect visitor use of the park. The development of U.S. 62 and AR 72 provided access to the historic battlefield. Increased traffic flow on U.S. 62 would pose potential minor to moderate long-term adverse impacts on traffic through the park and visitors' ability to enter the park. The actions of alternative 4, in conjunction with other past, present, and reasonably foreseeable future actions, would result in minor long-term beneficial cumulative impacts on park access and circulation.

Conclusion

This alternative would have a moderate to major, long-term, beneficial impact on park access and circulation. The realigned tour road would focus visitor activities in the battlefield landscape, while the retention of the Elkhorn Mountain portion of the tour road would maximize park access. Visitor access to key battle sites and the Union trenches would be enhanced. There would be no impairment of park resources and values.

Consultation and Coordination

PUBLIC INVOLVEMENT

The notice of intent to begin preparation of a general management plan for Pea Ridge National Military Park (NMP) was published in the *Federal Register* on August 2, 1999. An issue of the park's newsletter included a description of the planning process and an announcement of public meetings to initiate the process. In September 1999 two open houses were held to inform park neighbors, visitors, and the general public about the purpose of the general management plan, the process necessary to complete the plan, and to solicit public input on issues facing the park and the long-term management objectives for the park. A meeting was held at the park in September 1999 with representatives of state and local governments and subject-matter specialists to discuss current and proposed activities that could affect the park, identify opportunities for cooperative regional planning, and solicit recommendations on the management of park resources.

A second park newsletter was issued in January 2001 with information regarding park purpose and significance, issues identified in scoping, and preliminary management prescriptions and alternatives. This issue of the newsletter generated responses that lead to refinement of management prescriptions and alternatives. The issues of the park newsletter were posted on the park website at www.nps.gov/peri.

The NPS conducted two additional public involvement efforts in the spring and fall of 2004 to inform park neighbors and landowners of the identification of significant battle-related resources outside the park boundaries. These public involvement efforts contacted over 100 park neighbors and landowners to brief them on the results of this NPS study and the various ways they could cooperate with the National Park Service in the protection of the resources on their property if they chose to do so.

The park superintendent has conducted ongoing consultation with representatives of the Cherokee Nation on the development of the general management plan, the management alternative described in the plan, park interpretive programs and museum exhibits, and protection and management of the portions of the Trail of Tears within the park boundary. Cherokee tribal representatives have expressed their support for continued efforts to protect, preserve, and manage the battlefield and Trail of Tears.

The Arkansas State Historic Preservation Office (SHPO) participated in this meeting, providing information regarding cultural resource issues. Additional consultation on cultural resource issues with the SHPO has occurred throughout the project. The team has also consulted with the senior archeologist, Arkansas Historic Preservation Program, on the management zones and the alternatives for the GMP.

A number of discussions have occurred throughout the planning process regarding the state's planning process for addressing expected traffic increases on U.S. 62. The Arkansas Highway and Transportation Department provided data on traffic use and projections on U.S. 62 and AR 72. Representatives of the department also participated in the agency meetings held in September 1999.

In accordance with the Endangered Species Act and NPS policy, the National

Park Service consulted with the U.S. Fish and Wildlife Service and the Arkansas Natural Heritage Commission regarding Special Status Species.

The Arkansas Game and Fish Commission was contacted for consultation on issues regarding wildlife in the park.

The U.S. Department of Agriculture, Natural Resource Conservation Service, was contacted and provided information regarding prime and unique farmlands within the park.

The National Park Service has also consulted with the National Trails of Tears Association regarding efforts to interpret the Trail of Tears and preserve the segments of the Telegraph Road within the park boundaries.

AGENICES TO WHOM COPIES OF THE DRAFT GMP/EIS WILL BE SENT

Federal Agencies and Officials

Environmental Protection Agency, Region 7
Honorable Representative John Boozman, Arkansas 3rd District, US Congress
Honorable Senator Blanche Lincoln, U.S. Congress
Honorable Senator Mark Pryor, U.S. Congress
National Park Service
- Arkansas Post National Memorial
- Buffalo National River
- Central High School National Historic Site
- Fort Scott National Historic Site
- Fort Smith National Historic Site
- Hot Springs National Park
- Midwest Archeological Center
- Wilson's Creek National Battlefield
- Springfield National Cemetery

U.S. Army,
- Fort Leavenworth, Kansas
- Fort Leonard Wood, Missouri
- Fort Sill, Oklahoma

U.S. Fish and Wildlife Service
U.S. Forest Service
- Ozark National Forest

State Agencies and Officials

Arkansas Archeological Survey
Arkansas Commissioner of State Lands
Arkansas Department of Education
Arkansas Department of Environmental Quality
Arkansas Department of Heritage
Arkansas Department of Higher Education
Arkansas Department of Parks and Tourism
Arkansas Highway and Transportation Department
Arkansas Office of the Governor
Arkansas Office of the Lieutenant Governor
Arkansas State Historic Preservation Officer
Prairie Grove Battlefield State Park
Arkansas State Representative Keven Anderson – District 96
Arkansas State Representative Cecile Bledsoe
Arkansas State Representative Shirley Borhauer – District 98
Arkansas State Representative Horace Hardwick – District 99
Arkansas State Representative Eric Harris District 94
Arkansas State Representative Timothy Hutchinson – District 95
Arkansas State Representative Mike Kenney – District 97
Arkansas State Senator Dave Bisbee District 8
Arkansas State Senator Kim Hendren – District 9
Arkansas State Senator Jim Holt – District 35

Local Agencies and Officials

Benton County Archives and Records
Benton County Clerk
Benton County Historical Society
Benton County Office of Environmental Affairs
Benton County Office of Planning
Benton County Department of Roads
Bentonville Office of the Mayor
Bentonville Parks Department
Bentonville Planning Department
Bentonville Public Library
Bentonville and Bella Vista Chamber of Commerce
Pea Ridge City Council
Pea Ridge Office of the Mayor
Pea Ridge Office of the County Clerk
Pea Ridge Library
Pea Ridge National Military Park Foundation
City of Rogers Office of the Mayor

City of Rogers City Council
City of Rogers Parks and Recreation
City of Rogers Public Library
Rogers Historical Museum
Rogers-Lowell Chamber of Commerce
Shiloh Museum
Washington County Historical Society

Appendixes
Bibliography
Preparers

APPENDIX A:
LEGISLATION

Pea Ridge National Military Park

An Act To provide for the inspection of the battle field of Pea Ridge, Arkansas, approved June 9, 1926 (44 Stat. 715)

Pea Ridge, Ark., battlefield. Commission created.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That a commission is hereby created, to be composed of the following members, who shall be appointed by the Secretary of War:

Army Engineer officer.

(1) A commissioned officer of the Corps of Engineers, United States Army;

United States Civil War veteran.

(2) A veteran of the Civil War who served honorably in the military forces of the United States; and

Confederate States Civil War veteran.

(3) A veteran of the Civil War who served honorably in the military forces of the Confederate States of America.

Qualifications of commission.

SEC. 2. In appointing the members of the commission created by section 1 of this Act the Secretary of War shall, as far as practicable, select persons familiar with the terrain of the battle field of Pea Ridge, Arkansas, and the historical events associated therewith.

Inspection and report on feasibility of preserving, for historical study, etc.

SEC. 3. It shall be the duty of the commission, acting under the direction of the Secretary of War, to inspect the battle field of Pea Ridge, Arkansas, in order to ascertain the feasibility of preserving and marking for historical and professional military study such field. The commission shall submit a report of its findings and an itemized statement of its expenses to the Secretary of War not later than December 1, 1926.

Amount authorized for expenses. *Post*, p. 878.

SEC. 4. There is authorized to be appropriated out of any money in the Treasury not otherwise appropriated, the sum of $2,000 or such part thereof as may be necessary, in order to carry out the provisions of this Act.

An Act To provide for the establishment of the Pea Ridge National Military Park, in the State of Arkansas, approved July 20, 1956 (70 Stat. 592)

Pea Ridge National Military Park, Ark. Establishment.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That when not less than one thousand two hundred acres of the non-Federal lands hereinafter described (together with improvements thereon) and known as the Pea Ridge Battlefield, near Bentonville, Arkansas, shall have been acquired and transferred free and clear of all encumbrances to the United States without expense to the Federal Government, such areas shall

be, and are hereby, dedicated and set apart as a unit of the National Park System for the benefit and enjoyment of the people of the United States, under the name of the Pea Ridge National Military Park. (16 U.S.C. § 430aa.)

Sec. 2. The Secretary of the Interior is hereby authorized and directed to make an examination of the Pea Ridge Battlefield with a view to determining the area or areas thereof deemed desirable for inclusion in the Pea Ridge National Military Park and which—except for not more than twenty acres of any other lands adjacent to such battlefield found by the Secretary to be necessary to carry out the provisions of this Act—lie within the lands particularly described as follows: sections 17, 18, 19, 20, 29, 30, 31, 32, and 33, all township 21 north, range 28 west, Fifth principal meridian; sections 4, 5, 6, 7, and 8, all township 20 north, range 28 west, Fifth principal meridian; sections 13, 14, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 31, 32, 33, 34, 35, and 36, all township 21 north, range 29 west, Fifth principal meridian; and sections 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, and 12, all township 20 north, range 29 west, Fifth principal meridian. (16 U.S.C. § 430bb.)

Determination of desirable areas.

Sec. 3. (a) The National Park Service under the direction of the Secretary of the Interior, shall administer, protect, and develop the park, subject to the provisions of the Act entitled "An Act to establish a National Park Service, and for other purposes," approved August 25, 1916 (39 Stat. 535), as amended.

Administration.

16 U.S.C. 1 note.

(b) In order to provide for the proper development and maintenance of the park, the Secretary of the Interior shall construct and maintain therein such roads, trails, markers, buildings, and other improvements, and such facilities for the care and accommodation of visitors, as he may deem necessary. (16 U.S.C. § 430cc.)

Improvements.

Sec. 4. This Act shall become effective if and when the requirements of section 1 and 2 hereof shall have been fully complied with to the satisfaction of the President of the United States, who shall then issue a notice declaring that the requirements herein have been met, and said notice shall formally dedicate and set aside the areas transferred to the United States in accordance with the provisions of section 1 hereof. (16 U.S.C. § 430dd.)

Dedication.

Sec. 5. There are hereby authorized to be appropriated such sums as may be necessary to carry out the provisions of this Act. (16 U.S.C. § 430ee.)

Appropriation.

677-347—63——19

APPENDIX B: U.S. FISH AND WILDLIFE LETTER

United States Department of the Interior

FISH AND WILDLIFE SERVICE
1500 Museum Road, Suite 105
Conway, Arkansas 72032
Tel.: 501/513-4470 Fax: 501/513-4480

September 19, 2000

IN REPLY REFER TO: PERI 400 409

Park: PERI
Pkg.# 400 P.T.
Area
Subject: XCOMP.

Superintendent
Pea Ridge National Military Park
P.O. Box 700
Pea Ridge, Arkansas 72751-0700

Dear Superintendent:

The Fish and Wildlife Service (Service) has reviewed the information supplied in your letter dated August 14, 2000, concerning the development of a general management plan for Pea Ridge National Military Park, Benton County, Arkansas. Our comments are submitted in accordance with the Endangered Species Act (87 Stat. 884, as amended 16 U.S.C. 1531 et seq.)

The following threatened (T) and endangered (E) species could occur within the project area:

Species	Status
Ozark cavefish (*Amblyopsis rosae*)	T
cave crayfish (*Cambarus aculabrum*)	E
gray bat (*Myotis grisescens*)	E
Indiana bat (*Myotis sodalis*)	E

These four species are cave-dwellers, and are known to inhabit other caves in the area. If a cave is found within the Park's boundaries, this office must be notified so that a survey can be conducted to determine if the cave is inhabited by any listed species.

We appreciate your interest in the preservation of endangered species. If you have any questions, please contact Elizabeth Stafford at (501) 513-4483.

Sincerely,

Allan J. Mueller
Field Supervisor

00-792
xc: Mr. David M. Lee, NPS, Denver, Colorado

APPENDIX C: STATE CONSULTATION

DSC RECORD COPY

The Department of
Arkansas Heritage

Mike Huckabee, Governor
Cathie Mathews, Director

Arkansas Arts Council
Arkansas Historic Preservation Program
Historic Arkansas Museum
Delta Cultural Center
Old State House Museum

Arkansas Natural Heritage Commission

1500 Tower Building
323 Center Street
Little Rock, AR 72201
(501) 324-9619
fax: (501) 324-9618
tdd: (501) 324-9811
e-mail: info@arkansasheritage.org
website:
http://naturalheritage.com

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PERI 400 GMP
2001 A102 409
X Comp.
X Compliance file

Date: December 18, 2001
Subject: Elements of Special Concern
Pea Ridge National Park
Hobbs State Management Area, Beaver Lake
ANHC No.: F-NPS.-01-006

Mr. David Lee
National Park Service
Denver Service Center-Planning
P.O. Box 25287
Denver, CO 80225-0287

Dear Mr. Lee:

As requested in our phone conversation of 6 December 2001 I have enclosed information related to sensitive species known to occur on Hobbs State Management Area and Beaver Lake. This information is presented as annotated Benton, Carroll, and Washington County element lists. On these lists a "✓" has been place by those elements recorded from Hobbs State Management Area. Elements found in the vicinity of the Beaver Lake shoreline are shaded, and elements recorded for Pea Ridge National Park are marked with an "✖."

Also included are state ranking forms for the three special elements recorded for Pea Ridge National Park: Ozark chinquapin (Castanea pumila var. ozarkensis), lobed spleenwort (Asplenium pinnatifidum), and Ashe's juniper (Juniperus ashei). Although none of these species are considered to be endangered or threatened in Arkansas, they are uncommon or have conservation concerns. Ozark chinquapin has been affected by the chestnut blight. Most of these trees persist as stump sprouts with few producing fruit. Ashe's juniper and lobed spleenwort are on the periphery of their ranges in Arkansas.

Asplenium ***X*** kentuckiense (Kentucky spleenwort) has also been recorded from the National Park. It is the exceedingly rare hybrid of A. pinnatifidum and A. platyneuron. A single specimen was collected from the sandstone outcrops west of the Elkhorn Tavern at Pea Ridge National Park in 1943 by Dr. Dwight Moore (Moore 430114). It is the only known occurrence of this taxon in Arkansas. It is known from only a handful of localities globally. Theo Witsell, Zack Holden, and Dr. Jim Peck were unable to relocate it in 2001, and it is possible that the only individual was collected by Moore in 1943. Nonetheless, with the healthy populations of the parents, this rare hybrid could well be extant in the park. It will be added to the Arkansas Natural Heritage Commission's tracking list in the winter of 2001-02 and should be considered of concern to the National Park Service. Appropriate habitat would include all sandstone bluffs in the park.

If you have questions on this material or need additional information, please feel free to contact me. It has been a pleasure to work with you on this study.

Sincerely,

Cindy Osborne

Cindy Osborne
Data Manager

Enclosures: Annotated Benton, Carroll, & Washington County Element Lists
Legend
3 State Ranking Forms

JUN-17-04 THU 10:36 AM

PEA RIDGE NAT'L. MILITARY PARK
JUN - 9 2004
PEA RIDGE, AR

The Department of Arkansas Heritage

Mike Huckabee, Governor
Cathie Matthews, Director

Arkansas Arts Council
Arkansas Natural Heritage Commission
Historic Arkansas Museum
Delta Cultural Center
Old State House Museum

Arkansas Historic Preservation Program

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info@arkansaspreservation.org
website:
www.arkansaspreservation.org

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June 4, 2004

Mr. John C. Scott
Superintendent
Pea Ridge National Military Park
Pea Ridge, Arkansas 72751

RE: Benton County - General
Section 106 Review - NPS
Pea Ridge National Military Park: Draft General Management Plan/Environmental Impact Statement
AHPP Tracking No: 53207

Dear Mr. Scott:

Thank you for providing us the opportunity to review the draft General Management Plan and Environmental Impact Statement for Pea Ridge National Military Park. My staff has reviewed this document and we agree that Alternative 4, the preferred alternative, best protects this historic resource while, at the same time, making it accessible to the public.

We look forward to assisting the Park Service in the Section 106 process for future undertakings that involve ground disturbing activities or the demolition or modification of structures.

Thank you for your interest and concern for the cultural heritage of Arkansas. If you have any questions, please contact Steve Imhoff of my staff at (501) 324-9880.

Sincerely,

Ken Grunewald
Deputy State Historic Preservation Officer

cc: Dr. Ann M. Early, Arkansas Archeological Survey

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1983 Soil Survey of Benton County, Arkansas.

University of Arkansas

n.d. Plant Communities and Rare or Endangered Plant Species of Pea Ridge National Military Park, Benton County, Arkansas.

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

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