National Park Service

U.S. Department of the Interior

Stones River National Battlefield

Tennessee

Development Concept Plan for Improvements to the Self-guiding Tour Routes

Finding of No Significant Impact

December 2005

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Development Concept Plan for Improvements to the Self-guiding Tour Routes

Stones River National Battlefield

The selected action does not constitute an action that normally requires preparation of an environmental impact statement. The selected action will not have a significant effect on the human environment. Adverse environmental impacts that could occur are negligible to moderate in intensity. There are no unmitigated adverse impacts on public health, public safety, threatened or endangered species, sites or districts listed in or eligible for listing in the National Register of Historic Places, or other unique characteristics of the region. No highly uncertain or controversial impacts, unique or unknown risks, or elements of precedence have been identified. Implementation of the action will not violate any federal, state, or local environmental protection law.

Based on the foregoing, it has been determined that there is no significant impact associated with the selected action, and that an environmental impact statement is not required for this project and thus will not be prepared.

Recommended:

Stuart Johnson
Superintendent, Stones River National Battlefield

12.09.2005
Date

Approved:

Patricia Hooks
Regional Director, Southeast Region

12/23/05
Date

PURPOSE AND NEED FOR THE PROJECT

Stones River National Battlefield is the site of the Battle of Stones River, a key Civil War battle that took place over a three-day period from December 31, 1862, to January 2, 1863. The present-day battlefield consists of several non-contiguous sites where historic elements of the battle are located. An auto tour route and pedestrian trails lead visitors to these areas for interpretation. The existing interpretive routes are poorly designed and do not fully communicate the story in a logical sequence. The tour route and trails do not offer consistent visitor experiences. In addition, the waysides along the tour route were developed in the early 1960s and are outdated. The current route does not incorporate many of the areas that have recently been acquired for their historical importance.

The National Park Service (NPS) proposes measures to improve the effectiveness of the self-guiding interpretive program at Stones River National Battlefield in middle Tennessee, including new tour routes, road segments, trails, and wayside exhibits.

The purpose of this document is to record the decision of the NPS and to declare a Finding of No Significant Impact (FONSI) pursuant to the Council on Environmental Quality's regulations for implementing the National Environmental Policy Act Of 1969 (NEPA).

SELECTED ACTION

Initial orientation to the auto tour route will be provided at the visitor center, which has a drop-off area and parking for visitors and buses. Currently, six interpretive auto tour stops have been suggested by park staff. This process will update the current waysides, installed in the 1960s. These waysides will improve the adequacy of the story told about the Battle of Stones River and provide visitors with more information than given at present.

The proposed action will develop two signalized entry drives from Thompson Lane into the main park and McFadden Farm units. Circulation within the main unit will run clockwise along Old Nashville Highway, McFadden Lane, and part of the existing tour route. The west leg of the existing tour route will become a paved pedestrian trail. New parking will be developed in the McFadden Farm unit, and additional trails and directional signing will be installed.

Access to the Slaughter Pen area will be from McFadden Lane. At the Hazen Brigade Monument, one of the auto tour stops, a new parking lot will be added, which will provide bus parking at the monument. The entrance to the monument will be from a new road to the south, rather than from the Old Nashville Highway. A loop trail will connect the parking lot with the existing trail and the monument.

Visitors will be able to drive from the entry on Thompson Lane along the east branch of the current one-way tour road to the visitor center, where they will be oriented about the auto tour route. They will turn right onto the Old Nashville Highway and then right again

onto a two-way McFadden Lane, before proceeding to the south end of the road for tour stop number 2. Here, a turn-around will eliminate the need to back up. Visitors will proceed along what is currently the east branch of the existing tour road, up to the visitor center, and turn right onto the Old Nashville Highway, stopping at Hazen Brigade Monument. From the exit near the visitor center, visitors will follow the Old Nashville Pike to the Hazen Brigade Monument and go under and over the overpass onto Thompson Lane to cross the Old Nashville Highway and the railroad.

Once visitors have reached Thompson Lane, they will turn left at a signalized intersection to access McFadden Farm via a new park road that will curve through fields and woods to reach the Artillery Monument and McFadden gravesite.

Once the visitor has arrived at the visitor center and begun the auto tour route, there will be no need to backtrack. Two-way traffic from the visitor center to the Slaughter Pen will necessitate wider roadways, could potentially cause more resource damage, and might be confusing to some visitors. This route will have some potential for local traffic taking a short-cut through the park. The visitor center is also not the natural first stop, because of its distance from the southern entrance. However, the cedar glades will be interpreted along the auto tour route.

Under the selected action, the trail system will incorporate existing trails and add new links to important sites and waysides. A trailhead will be developed west of the visitor center. This trailhead will orient park visitors to trail opportunities and guide users to their desired destination. Visitors interested in walking the auto tour route sequence can visit tour stops 1 through 5 via a 5-foot-wide paved trail.

New parking lots will also be constructed at some of the designated auto tour stops, to accommodate both cars and buses. Five-foot-wide sidewalks will link parking spaces to the visitor center. New parking lots will also be constructed at some of the designated auto tour stops, to accommodate both cars and buses.

OTHER ALTERNATIVES CONSIDERED

The NPS considered four alternatives in the environmental assessment process: three action alternatives and a no action alternative. The following provides a brief description of the alternatives other than the selected action. The alternatives are described in full detail in the environmental assessment.

The No Action Alternative

The No Action Alternative is defined as continuation of current management and use of facilities of the auto tour route and trails. Currently, visitors enter the main part of the park at the historic entrance across from the cemetery, and most stop at the visitor center before beginning the auto tour route. The existing tour route moves clockwise through the main battlefield area with six interpretive

stops. The interpretive media and placement of the waysides would not be updated. Other non-contiguous parts of the park are not part of the current auto tour route.

After full analysis, this alternative was not selected because it did not meet the objectives of the plan.

Alternative A - Maintain Current Entrances, Reduce Road Surfaces, Interpret Cedar Glades

Visitors would continue to use the traditional park entry, stopping first at the visitor center for orientation and an introduction to the battlefield. They would then be directed to the beginning of the tour at the Old Nashville Highway, which they would follow southeast to McFadden Lane. Here, the tour route would reenter the park and move south along the road to the Slaughter Pen area, then circle back to the visitor center along the east leg of the current loop road. A loop would be added near the Slaughter Pen to allow for an easy return north for vehicles.

The west loop of the existing tour road would be narrowed to a trail. The tour would continue to follow the existing route to reach the Hazen Brigade Monument and then McFadden Farm.

Incorporating the historic route of McFadden Lane as part of the tour route would continue its historic use, with minimal effects on the park's cultural landscape. The tour route would continue to use the traditional park entry (through stone pillars) from the Old Nashville Highway and would require only a limited expansion of park operations and maintenance. The park's trail system would be enlarged and improved under this alternative.

After full analysis, this alternative was not selected because it did not fully meet all of the objectives of the plan, by neither improving the safety of entrances to park units or the safety of the auto tour route. Alternative A would not provide additional access routes to more remote areas of the park, such as the southeast corner of the main park unit and the McFadden Farm unit.

Alternative B - Construct New Entrances, Add Natural Resources Tour Route to Interpret Cedar Glades

Visitors would enter the south end of the main part of the park from Thompson Lane via a new signalized entry. A short segment of new road would curve westward through fields and woods to create a sense of entry into a different time and place. This new road segment would intersect and follow the historic McFadden Lane (Van Cleve Lane) northward before turning onto a new one-way road connecting to the tour road that would lead to the visitor center.

After stopping at the visitor center, visitors would begin their tour by retracing their way along the east leg of the existing tour road, joining McFadden Lane to continue to tour stop number 1 at the far south end of the park. Returning the short distance north to the new road segment that extends from Thompson Lane, visitors could return to the visitor center via McFadden Lane and a portion of the east loop of

the existing tour road, expanded for two-way traffic, or take the natural resource tour road (the west leg of the existing tour road). They also could exit onto Thompson Lane from the two-way road at the entrance at the south end of the park. From the exit near the visitor center, visitors would follow the Old Nashville Pike to the Hazen Brigade Monument and go under and over the overpass onto Thompson Lane to cross the river and the railroad.

Once visitors have reached Thompson Lane, they would turn northeast at a signalized intersection and access the McFadden Farm unit via a new park road that would partially follow Thompson Lane up to a new parking area, near the current parking area. The current parking area would be removed. Under Alternative B, the trail system would incorporate existing trails and add new links to important sites and waysides.

After full analysis, this alternative was not selected because it would involve greater amounts of backtracking in order to properly tell the story of the Battle of Stones River and would not reduce paved surfaces through the cedar glades.

RATIONALE FOR SELECTED ACTION

The NPS has chosen Alternative C as the selected action. Through the environmental assessment process, the NPS has determined that implementation of Alternative C will not result in significant impacts to the human or natural environment and that the alternative successfully fulfills the objectives of the project.

During the planning process, the NPS established objectives for this project that were used as a framework for evaluating alternatives for improving the self-guiding tour route. The objectives of this action are to:

- Improve interpretation and the ability of visitors to experience a "sense of place" within the battlefield;
- Allow visitors to experience important historic elements of the greater battlefield area in a chronological sequence, including all recently acquired areas, and offer visitors educational consistency between the auto and pedestrian tours;
- Enhance visitor accessibility;
- Enhance visitor and employee safety, both within the park and in outlying park units;
- Help to restore the cultural landscape; and
- Provide for additional interpretation, recognition, and protection of natural resources such as the cedar glades.

The selected action, Alternative C, provides the most desirable combination of actions that meet the above objectives, primarily by providing the best-organized tour route for interpretation of the battlefield and interpreting the cedar glades via an accessible, paved trail. The selected action will preserve and enhance the battlefield's cultural value and minimize environmental impacts.

ENVIRONMENTALLY PREFERRED ALTERNATIVE

The environmentally preferred alternative is the alternative that will best promote national environmental policy expressed in the National Environmental Policy Act. The environmentally preferred alternative will cause the least damage to the biological and physical environment and will best protect, preserve, and enhance historical, cultural, and natural resources.

Section 101(b) of the National Environmental Policy Act identifies six criteria to help determine the environmentally preferred alternative. The Act directs that federal plans should:

1. Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations.

2. Assure for all Americans safe, healthful, productive, and esthetically 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 historical, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity and variety of individual choice.

5. Achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities.

6. Enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

Continuing the current conditions under the No Action Alternative would be the least effective alternative in meeting these criteria. Without improving the auto tour route, the Battle of Stones River would continue to be inadequately interpreted; the tour route would remain difficult to navigate; and the cedar glades, a rare natural resource in the United States, would not be interpreted and would continue to have a road separate the middle of the glades from the edges. The present configuration of the auto tour route would somewhat compromise the safety of visitors in traveling across major roads traveling to the tour stops. The No Action Alternative fails to meet the criteria of environmentally preferred alternative by not:

- Assuring a safe, healthful, productive, and esthetically and culturally pleasing surround for everyone,

- Attaining the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences, or

- Fully preserving important historical, cultural, and natural aspects of our national heritage.

Alternative(s) B and C (the Selected Action) would both be preferred over the No Action Alternative. With implementation of either alternative, the NPS would be better able to portray accurately and clearly the Battle of Stones River, protect and interpret the cedar glades, and provide a safe environment for visitors to travel along the auto tour route with signalized entrances and a more direct tour route.

However, Alternative C (the Selected Action) would more fully meet the criteria for environmentally preferred alternative than Alternative B, by creating less impervious surface and better conveying the chronological sequence of the battle with less backtracking. Alternative C (the Selected Action) will meet the criteria for environmentally preferred alternative as evidenced below:

1. Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations. The selected action will ensure that the Stones River National Battlefield is interpreted in a meaningful manner for future generations, so they may understand the cultural history of the site. This will ensure the park is able to fulfill its mission to preserve and interpret park resources.

2. Assure for all Americans safe, healthful, productive, and esthetically and culturally pleasing surroundings. The selected action will provide an esthetically pleasing auto tour route, through improvements to route organization, waysides, and additional interpretation of the cedar glades. Public health and safety will be improved from adding signalized entries to the park units and reducing hazardous routes along the auto tour route.

3. Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences. The selected action will result in an improved auto tour route, increased awareness of the protected cedar glades through interpretation, and result in minimal impacts to the environment.

4. Preserve important historical, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity and variety of individual choice. The selected action will improve the chronological sequence of the auto tour route, with minimal backtracking. The cedar glades will be interpreted along the route. Trails will be extended, so that

visitors can easily access the same route via foot, or enhance their auto tour route experience with side trips along trails.

5. Achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities. The selected action will increase accessibility of the park to mobility-impaired visitors. It also will result in slight improvements to cedar glades.

6. Enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources. Asphalt that is removed from areas of the park will be recycled, if recycling is available in the area.

Therefore, Alternative C, the selected action, is the environmentally preferred alternative.

RESOURCE PROTECTION MEASURES

To mitigate and minimize potential impacts to cultural and natural resources and to enhance protection of visitor and public safety, the following practices and measures would be incorporated into the project construction documents and plans. The impacts of the selected action as described in the "Affected Environment and Environmental Consequences" section of the environmental assessment were determined assuming that these resource protection measures were implemented.

RESOURCE PROTECTION MEASURES

Resource Category/Action
Cultural Resources
Ground-disturbing actions will be designed to avoid known archeological sites and historic features.
Investigations will include the Union earthworks area. Discovered resources will be evaluated for their significance, and if needed, preservation and protective measures will be developed in consultation with the Tennessee State Historic Preservation Office. Best management practices will emphasize changes in project design to avoid and protect sites and features, and/or could include archeological monitoring of the project and data recovery.
To reduce unauthorized collecting, construction personnel will be educated about cultural resources in general and the need to protect and report any cultural resources encountered. Work crews will be instructed regarding the illegality of collecting artifacts on federal lands to avoid any potential Archeological Resources Protection Act violations.

Cultural Resources

Resource protection measures will be included in construction documents to ensure that the contractor did not disturb sensitive areas such as the Union earthworks. Areas for contractor activities will be clearly delineated (staked) on the ground to ensure that activities occurred only in designated areas. Construction documents will include stop-work provisions, should archeological or paleontological resources be uncovered, and the contractor will be apprised of these protective measures during the pre-construction conference.

All project documentation, including but not limited to plans, photographs, and notes, will be permanently retained in the park's museum collection.

Areas containing sensitive cultural resources will be identified in the construction operations plan. Work limits will be established and clearly marked to protect resources, and all protection measures will be clearly stated in the construction specifications. Workers will be instructed to avoid conducting activities beyond the construction zone and their compliance will be monitored by the project contracting officer's technical representative.

Museum collections on exhibit at Stones River National Battlefield will be protected at all times. Any work near cannons and other objects such as monuments or markers will be coordinated with the park's museum curator prior to beginning activities. Information will be provided to ensure necessary precautions when working around museum objects within the project area.

Contractors will be advised to protect any trees and other vegetation that are important to maintaining the integrity of the cultural landscape. They will be advised to stop work and consult with park staff if ground-disturbing activities revealed anything that could be a remnant landscape feature, such as buried road surfaces, cannonballs, or other Civil War materials.

New landscape features will be compatible with the original design and character of the cemetery or other historic designed landscape, and these features will be sited so that they will not intrude upon the historic battlefield landscape, nor destroy its character-defining elements. Work will follow the *Secretary of the Interior's Standard for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes* (NPS 1996).

Discovery of Unknown Archeological Resources or Human Remains

If previously unknown archeological resources or human remains were discovered, work will be stopped in the area of the discovery and the park will consult with traditionally associated peoples, the National Park Service Southeast Archeological Center, the State Historic Preservation Officer, and the Advisory Council on Historic Preservation, as appropriate. Procedures outlined in 36 *CFR* 800 and the Native American Grave Protection and Repatriation Act (NAGPRA) will be followed.

Visitor Experience

To limit adverse effects on the visitor experience, the park will prioritize construction activities to ensure, to the greatest degree possible, that visitors will continue to have access to a wide range of the battlefield's resources. Work will be scheduled to avoid visitor high-use periods and to minimize adverse effects on the visitor experience.

All construction areas will be closed to visitor access and appropriately marked and flagged for avoidance.

Contractor staff will be trained to lessen the adverse effects of construction activities on visitor use and experience, and activities will be monitored to ensure the success of this training.

Strategies and information will be developed to incorporate the construction activities into the park's interpretive program and will be posted at selected locations to enhance interpretation and visitor understanding of the project.

Public Health and Safety

Contractor and visitor contact will be minimized by keeping materials and vehicle storage outside the park. Work areas will be delineated, and access by visitors and non-essential park staff will be prohibited.

The park will continue to monitor and close off sections of the tour road to visitor and park staff access where construction activities will represent a potential hazard to public health and safety.

Best management practices will be used to prevent or minimize potential adverse effects associated with the project. These practices and measures will be incorporated into the project construction documents and plans.

Should flooding occur on the roads in the battlefield, the park staff will close the roads to the public to ensure its safety.

Soils and Vegetation

To minimize disturbance to the surrounding soil and vegetation, the construction limits will be marked prior to beginning any work under the proposed contract. Construction limits will remain marked until completion of the contract to ensure no disturbance to native vegetation beyond the narrowly defined area.

Standard erosion control best management practices, including silt fencing, will be used at sand stockpiles to control sediment generation and transport. Construction and contractor billeting activities will be contained within designated boundaries to reduce effects on vegetation. At completion of the project, highly disturbed areas will be restored, which could include soil preparation and reseeding with native vegetation.

Water Resources

The contractor will be required to use construction best management practices to limit effects on water quality. This will include sediment fencing and other appropriate measures to control runoff. Disturbance of ground cover will be kept to a minimum.

Park Operations

By providing adequate training and orientation for construction personnel, the park will be better able to reduce the burden of managing and monitoring work associated with the current project.

The contractor will be required to schedule activities in consultation with park staff to minimize conflicts with daily park operations and other park projects.

If asphalt recycling was available in the area, contractors will be required to recycle asphalt removed from roads and trails.

Wildlife and Threatened and Endangered Species

Workers will maintain a defined work area perimeter and will keep all construction-related effects within the affected area.

A qualified biologist will identify federally and state-listed plant species that could be affected by the project and investigate the potential for relocating individual plants. Other federally and state-listed plants present and adjacent to areas affected by the project will be marked and protected with fencing or other means.

Construction and stabilization activities will not be allowed at night. This will allow birds to roost and forage in areas near the project without disturbance.

Cedar Glades
Contractors will be informed about cedar glades, including how to identify them, and will restrict access to glade areas wherever possible. Workers will maintain a defined work area perimeter that does not include glade areas and will keep all construction-related effects within the affected area.
Floodplains
Incorporation of methods for minimizing flood damage into the design of new road segments, as contained in the National Flood Insurance Program Floodplain Management Criteria for Flood-Prone Areas (Code of Federal Regulations 44 : 60 . 3) and in accordance with any local, county, or state requirements for flood-prone areas will occur.

SIGNIFICANCE CRITERIA

The selected action will not have a significant effect on the human environment. Significance is determined by the ten criteria defined in 40 CFR 1508.27. A discussion of each of these criteria follows:

Impacts that may be both beneficial and adverse. No major adverse or beneficial impacts were identified that require analysis in an environmental impact statement.

Long-term, moderate, beneficial effects will occur to the cultural landscape, through reusing historic road traces and removing intrusive parking at the McFadden Farm, but the increase in visitor traffic and construction of new road segments will have long-term, minor, adverse effects on the cultural landscape. New trails near the Union earthworks will have both beneficial and adverse minor effects on the landscape.

Minor to moderate benefits to visitor use and experience will occur as a result of improvements to waysides, trails, and the order and logic of the auto tour route.

Increases in accessibility for visitors to the auto tour route, waysides, and trails will result in moderate, beneficial effects. Reducing road surfaces through cedar glades to a paved trail that somewhat improve lateral surface flow will result in negligible to minor benefits. Soils will benefit from the reduction in impervious surfaces in some areas, but will be adversely affected by the addition of impervious surfaces elsewhere in the park.

During implementation, the project will have short-term, negligible to moderate, adverse effects on visitor use and experience, park operations, vegetation, soils, wildlife, and threatened and endangered species, as a result of temporary disturbances related to construction activities.

Degree of effect on public health and safety. Public health and safety will be improved through implementation of the selected action. Improving the auto tour route so visitors will not have to make dangerous left turns across four lanes of traffic and the addition of

signalized entries will provide long-term, minor benefits to health and safety, although road segments that will pass through the 100-year floodplain will have negligible, adverse effects on public health and safety with resource protection measures in place.

Unique characteristics of the area such as historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas. There are no prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas within the project area.

A portion of project activities will occur in the 100-year floodplain. For this reason, a Statement of Findings for Floodplains was prepared and attached as an appendix to the environmental assessment. The Statement of Findings concluded that no long-term adverse impacts will occur from the selected action. Flood elevations are not expected to change as a result of the proposed action, and floodplain characteristics will not be altered by the addition of these road and paved trail segments, as they are only 0.08 percent of the 100-year floodplain located within the park. Therefore, the NPS finds the selected action to be acceptable under Executive Order 11988 for the protection of floodplains.

Eight landscapes have been identified as component landscapes in the National Park Service Cultural Landscapes Inventory for Stones River National Battlefield. These include Stones River National Cemetery, Stones River Core Battlefield, Hazen Brigade Monument, Artillery Monument, General Bragg's Headquarters, General Rosecrans' Headquarters, Lunettes Palmer and Thomas and Curtain Wall Number Two at Fortress Rosecrans, and Redoubt Brannan at Fortress Rosecrans. These sites are considered nationally significant under National Register criteria and were listed on the Register in 1966 (Stones River National Battlefield Historic District) and 1974 (Fortress Rosecrans).

The NPS determined, and on September 29, 2005, the Tennessee State Historic Preservation Officer concurred, that implementation of the selected action will have an effect on historic properties, but that this effect *would not be adverse*. Using the impact thresholds in the environmental assessment, it was determined that cultural landscapes will benefit from the reuse of historical routes, but will be negatively affected by new trails, parking lots, roads, and additional road traffic. Because there is the potential to find archeological artifacts within the project area, even with resource protection measures, negative effects to archeological resources will be long term and minor. These minor effects correlate to a section 106 assessment of "*no adverse effect*", as stated in the impact thresholds for Cultural Resources.

Stones River Glades and Barrens Natural Area is a 185-acre state natural area that encompasses the cedar glades within Stones River National Battlefield. It protects the natural resources in the area by providing recognition of the cedar glades' uniqueness and strengthening the protection already provided by the National Park

Service. Reducing road surfaces through the cedar glade area and constructing a paved trail that will somewhat improve lateral surface flow in the glades will result in long-term, negligible to minor, beneficial effects.

Degree to which effects on the quality of the human environment are likely to be highly controversial. There were no highly controversial effects identified during the preparation of the environmental assessment or during the one-month public review period which ended October 28, 2005.

Degree to which effects on the quality of the human environment are highly uncertain or involve unique or unknown risks. There were no highly uncertain, unique, or unknown risks identified during either preparation of the environmental assessment or during the one-month public review period which ended October 28, 2005.

Degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration. The selected action does not set a precedent for future actions with potentially significant impacts or represent a decision in principal about future considerations.

Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. Projects that were considered in conjunction with the selected action for their cumulative effects include construction of the Medical Center Parkway, a new I-24 interchange, visitor center rehabilitation, creation of interpretive exhibits along the Trail of Tears, reconstruction of the rostrum, widening of the Thompson Lane Bridge, the potential expansion of Stones River National Battlefield, and the Stones River Cedar Glades and Barrens Natural Area.

As detailed in the environmental assessment, there are no significant cumulative impacts associated with the selected action. Moderate, beneficial cumulative effects will occur to visitor use and experience and public health and safety, through the improvement of interpretive facilities and improved safety as a result of road projects. Cumulative effects to vegetation, wildlife, soils, cedar glades, cultural, and threatened and endangered species will range from minor to moderate and are adverse, primarily from increased development surrounding the park.

Degree to which the action may adversely affect districts, sites, highways, structures, or objects listed on the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources. The selection action will not adversely affect any National Register districts, sites, structures, or objects, as concurred by the State Historic Preservation Office on September 29, 2005.

Degree to which the action may adversely affect an endangered or threatened species or its critical habitat. In accordance with Section 7 of the Endangered Species Act of 1973, as amended, (16 U.S.C. 1531-1543) (Act), the U.S. Fish and Wildlife Service (USFWS) and the

Tennessee Department of Environment and Conservation were contacted for potential impacts to federally listed threatened and endangered species and their critical habitat. According to the U.S. Fish and Wildlife Service, no threatened or endangered species or its critical habitat will be adversely affected by the selected action.

Whether the action threatens to violate a federal, state, or local environmental protection law. This action does not threaten to violate any law.

IMPAIRMENT

In addition to reviewing the list of significance criteria, the NPS has determined that implementation of the proposal will not constitute an impairment to Stones River National Battlefield resources and values. This conclusion is based on a thorough analysis of the environmental impacts described in the environmental assessment, relevant scientific studies, and the professional judgment of the decision-maker guided by the direction in NPS *Management Policies 2001*. Because there will be no major, adverse impacts to a resource or value whose conservation of which is (1) necessary to fulfill specific purposes identified in the established legislation of Stones River National Battlefield; (2) key to the natural or cultural integrity of the national battlefield and the park; or (3) identified as a goal in the park's general management plan or other relevant NPS planning documents, there will be no impairment of the cemetery or park's resources or values.

PUBLIC INVOLVEMENT AND AGENCY CONSULTATION

Several internal scoping meetings and design workshops took place between November 2003 and July 2004. These internal scoping meetings identified the main issues and impact topics to be evaluated in the environmental assessment. Various design meetings and a value analysis workshop identified a range of alternatives to address the shortcomings with the existing interpretive route.

An initial newsletter describing park resources, the purpose and need of the proposed tour route improvement project, planning process, project goals, and schedule was sent to all interested individuals, organizations, agencies, and Indian tribes in March 2004, and was posted on the park's website. During the spring and summer of 2004, the NPS held meetings with a variety of stakeholders to seek their input on planning for the park. The park also held a public scoping workshop in Murfreesboro on March 16, 2004.

A second newsletter describing several draft alternative concepts for improvements to the tour route was sent to interested parties and stakeholders in October 2004, and the park hosted an open house public meeting on October 14, 2004. The park worked closely with the Tennessee State Historic Preservation Officer to help ensure that all interested groups and individuals were kept fully informed of the

project as planning progressed.

As part of the scoping process for this project, the NPS contacted the U.S. Fish and Wildlife Service regarding threatened and endangered species compliance. The U.S. Fish and Wildlife Service responded that no threatened or endangered species occur within the project area. A copy of the NPS letter that was sent to the U.S. Fish and Wildlife Service on which the agency responded is provided in Appendix A of the environmental assessment.

The Tennessee State Historic Preservation Office has been involved in this project from its inception. A Section 106 consultation letter describing the project and inviting continuing agency participation was sent to the State Historic Preservation Officer and to the Advisory Council on Historic Preservation. Copies of the letters sent to the agencies are provided in Appendix A of the environmental assessment. As part of the ongoing compliance, the park sent the combination environmental assessment/assessment of effect to Tennessee State Historic Preservation Office for review and concurrence with the National Park Service determination of project effect, to which the State Historic Preservation Office responded with a concurrence that the selected action will not adversely affect any National Register of Historic Places-listed Property, so long as the National Park Service ensures appropriate archeological monitoring during ground-disturbing activities associated with the project.

The Environmental Assessment for the Development Concept Plan for Improvements to the Self-guiding Tour Routes was released for public review on September 25, 2005 through mailings to a list of interested parties. Review of the document ended October 28, 2005.

Six comments on the Development Concept Plan for Improvements to the Self-guiding Tour Routes Environmental Assessment were received during the 30-day public review period. These included four substantive comments, which are addressed below.

The Tennessee Department of Environment and Conservation, Division of Natural Heritage, commented on the construction of road segments in the southeastern corner of the main park unit, as this area is included in the Stones River Glades and Barrens Natural Area, regulated by the Tennessee Department of Environment and Conservation (DEC). Its letter stated that the Rules for Management of Tennessee Natural Resource Areas do "permit road development for public use and access in natural area, it does stipulate, however, 'the width of roadways shall not exceed eighteen feet. Shoulders of the roadway shall not exceed one foot in width on each side. Two additional feet of shoulder will be allowed where guardrails are needed for safety purposes (Chapter 0400-2-8-12.b)." However, this will not be a concern with regards to the improvements to the self-guiding tour route, as the road segments altered or constructed within the natural resource area will be one-way and 12 feet in length with 2-foot shoulders on each side, for a total of only 16 feet wide. With regards to paving the existing 22-foot-wide unimproved McFadden Road, the Tennessee DEC

"does not oppose these improvements but again recognizes potential impacts to nearby vegetation." Resource protection measures included in the environmental assessment provide for the protection of vegetation adjacent to construction areas.

Two comments referred to the paved trail through the cedar glades. One requested that a non-paved trail be considered, while the other requested considering pervious pavement. During initial scoping, these options were discussing by park staff, but were not selected because removing all the pavement would have more short-term impacts on the cedar glades than reducing the width of the pavement generated. This also would have increased construction costs. With specific reference to a non-paved trail, this surface type was not selected because it would increase impacts and cost, increase maintenance, reduce the level of accessibility for all visitors, and could potentially increase erosion, as slopes can be as great as 5 to 8 percent laterally in some areas of the route.

One comment referred to the need to ensure glades are not affected during short-term road and trail construction. A resource mitigation protection measure that informs construction contractors to restrict access to glade areas wherever possible was added in the errata sheet for this document.

ERRATA SHEET

DEVELOPMENT CONCEPT PLAN FOR IMPROVEMENTS TO THE SELF-GUIDING TOUR ROUTES

ENVIRONMENTAL ASSESSMENT

STONES RIVER NATIONAL BATTLEFIELD

CHANGES IN THE ENVIRONMENTAL ASSESSMENT TEXT

Page 41, Table 6. An addition to table 6 has been added as the last two rows:

Cedar Glades
Contractors would be informed about cedar glades, including how to identify them, and would restrict access to glade areas wherever possible. Workers would maintain a defined work area perimeter that does not include glade areas and would keep all construction-related effects within the affected area.