



Draft Environmental Assessment

For
Noonday Creek Multi-Use Trail, Phase I



Kennesaw Mountain National Battlefield Park
Kennesaw, Cobb County, Georgia

**National Park Service
Environmental Assessment-Noonday Creek Multi-Use Trail, Phase I
Kennesaw Mountain National Battlefield Park
Kennesaw, Cobb County, Georgia**

Summary

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2. Documentation from the May 2, 2006 Scoping Meeting
3. Documentation from the May 17, 2007 Scoping Meeting

1. Purpose and Need

The National Park Service (NPS) is considering the construction of a multi-use trail (Noonday Creek Multi-Use Trail, Phase I) and construction of an additional parking lot at the Kennesaw Mountain National Battlefield Park (Park), Cobb County, Georgia. This action is needed to partner with gateway communities to provide alternative transportation for local residents to access the Park and to provide connectivity to Cobb County and the regional trail system, retail, commercial, business, and mass transit facilities in the Kennesaw area. Within the Park, the action would eliminate unsafe roadside parking, provide an additional designated parking area outside of the Park for trail users, alleviate traffic congestion, and provide additional interpretive opportunities to visitors. The proposed project was developed to address needs for the Park including:

- Provide alternative transportation for local residents and Park visitors,
- Connect to the existing and proposed Cobb County trail system and enhance access to area retail, commercial, business, and mass transit facilities,
- Increase parking capacity for trail users and Park visitors with a new parking lot outside the Park boundary,
- Eliminate unsafe roadside parking locations,
- Alleviate traffic congestion, and
- Provide additional interpretive opportunities.

An environmental assessment (EA) analyzes the preferred alternative, other alternatives and their impacts on the environment. This EA has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, regulation of the Council on Environmental Quality (40 CFR 1508.9), and the National Park Service's Director's Order (DO) – 12 (Conservation Planning, Environmental Impact Analysis, and Decision-making).

2. Purpose and Significance of the Park

The 2,888-acre Kennesaw Mountain National Battlefield Park ("Park") is located in the suburban northwest area of Atlanta, Cobb County, Georgia. The Park is located west of Marietta, Georgia and adjacent to Kennesaw, Georgia (see Figure 1 – Project Location).

The War Department authorized the protection of the battlefield in 1917, and it became a unit of the National Park System in 1933. The Park preserves a Civil War battleground that was the location of some of the heaviest fighting between Confederate and Union forces during the Atlanta Campaign. In the spring of 1864, General Ulysses S. Grant, commander-in-chief of Union forces, ordered General William T. Sherman to push south from Chattanooga, Tennessee, defeat the Confederate Army of Tennessee, and take Atlanta, the railroad, manufacturing, and storage center for the southern Confederacy. The two armies fought in a series of battles between June 18 and July 2, 1864, with Sherman's Union forces eventually outflanking Confederate General Joseph E. Johnson's army. The Union forces eventually captured and burned Atlanta, with the effect of bolstering the north's willingness to continue fighting and contributing to the reelection of Abraham Lincoln as President.

The preservation of the Park is important to provide public inspiration and interpretation of historic events. In recent years the Park has also become an important recreational area. The Park maintains a Visitor Center which includes a museum, interpretive displays, and a theatre. There is a driving tour of the Park that uses public roads that run through and adjacent to the Park. In addition there are 16 miles of maintained trails, two recreational fields, access to the top of Kennesaw Mountain via a paved road and hiking trail, and lectures, displays, and living history reenactments.

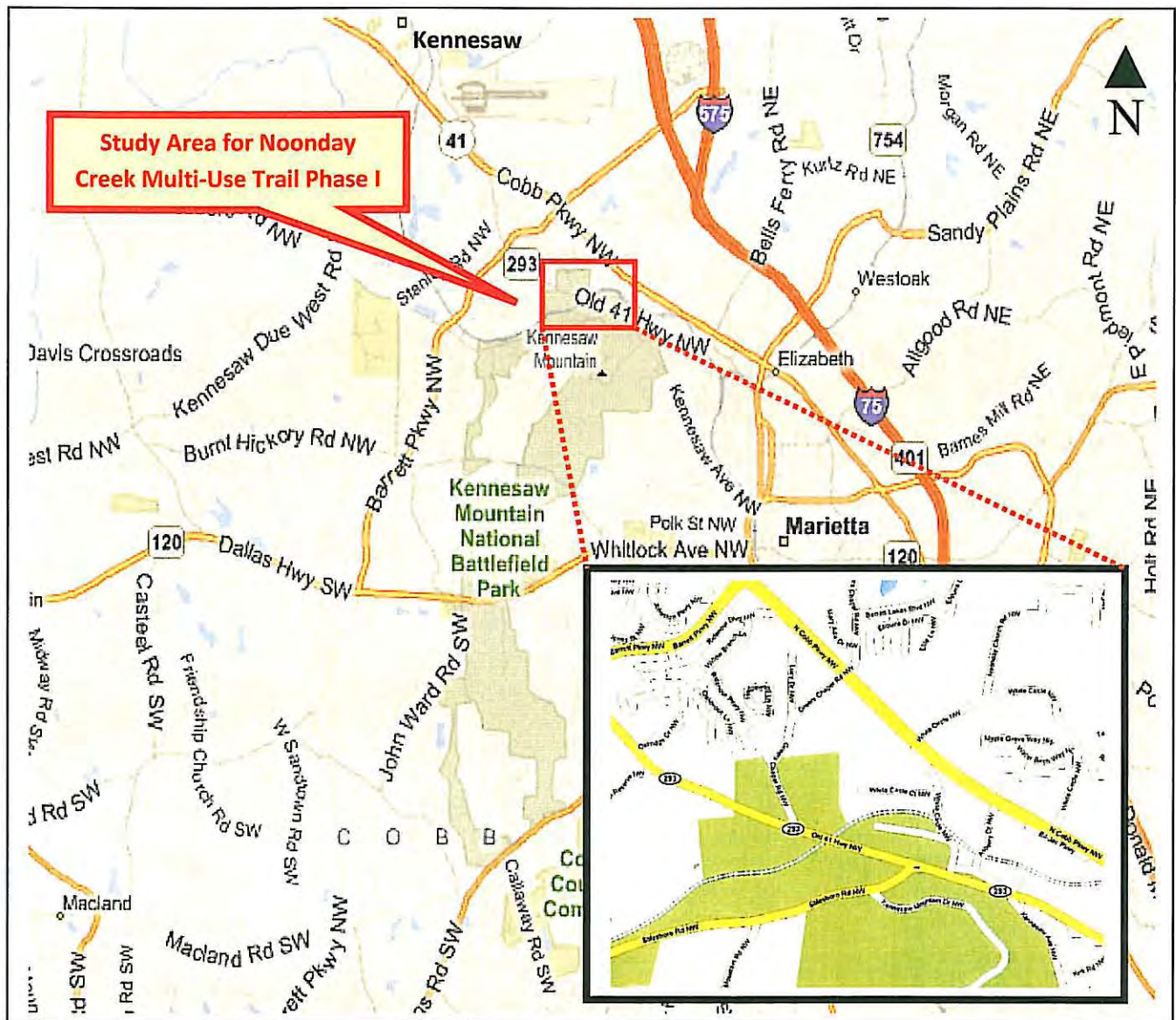


Figure 1 – Project Location

Source: Microsoft Maps

Not To Scale

3. Project Background, Previous Planning, and Scoping

3.1 Project Background

The purpose of Kennesaw Mountain National Battlefield Park is to preserve and protect resources within the Park for memorial and military study, and to mark and commemorate the 1864 Atlanta Campaign for the benefit and inspiration of the people by providing access to sites and facilities significant to the battle. The intent is to allow visitors to experience the approximate 1864 appearance of the land at the time of the battle including the extensive use of earthworks and terrain as they affected battlefield actions.

The Park is located in a rapidly growing area of metro Atlanta. The Park is surrounded by residential development, and several roads traverse through the Park boundary. According to a transportation study prepared for the Park in 2004, 88% of traffic on roads within the Park boundary is non-Park traffic. The roads that pass through or surround the Park include Old 41 Highway, Stilesboro Road, Burnt Hickory Road, Dallas Highway/SR 120, Powder Springs Road, John Ward Road, Old Mountain Road, and Cheatham Hill Road. Because of the traffic patterns and large volumes of commuter traffic, visitor safety is a principal concern.

The Park offers one of the largest green space recreational areas in the Atlanta area. Visitation to the Park includes destination visitors on weekends as well as week day use by commuters traveling through the park to area residential developments. Higher visitor numbers are experienced on weekends however, particularly in the spring and fall months of the year. The proximity of the Park to urban areas of Atlanta and favorable year round weather conditions result in an ever increasing demand on parking and recreational facilities in the Park.

Of the 391 units of the National Park System, Kennesaw Mountain National Battlefield Park is the second most visited park in the country, second only to George Washington Memorial Parkway which is essentially an interstate in the Washington D.C. area. Because there is no single entrance to the Park, visitation figures are based on estimates from counters placed at various locations in the Park. Based on this estimation, reported visitation figures for the past five years include:

- 2002 - 1,359,264
- 2003 - 1,422,303
- 2004 - 1,221,752
- 2005 - 1,005,510
- 2006 - 1,316,129

The NPS counts commuter traffic that passes through the park on park-owned roads as "non-recreation visitors". This number is calculated from Georgia and Cobb County Departments of Transportation (DOT) traffic counters on the roads. These numbers are divided by two, assuming that the same vehicles pass through the park twice per day (going to and from work). Non-recreation visits in 2006 were estimated to be 25,764,060. Nearly all visitors travel to the Park by automobile, and over 100,000 cars travel on Park roads daily.

3.2 Previous Planning

- Kennesaw Mountain National Battlefield Park General Management Plan (1983)

Although the General Management Plan (GMP) is 25 years old, even in 1983 key issues for the Park were overuse of the Park at certain times and visitor congestion due to it's location in a rapidly growing urban area. The GMP provided several parking recommendations and visitor-use programs to address these issues. The interaction of visitor use with available Park resources for a Park located within a major urbanized area is a recurring theme throughout the GMP and continues to be a major issue today. The proposed parking and trail alternatives addressed in this EA are a continuation of proposed solutions to address concerns in the GMP.

3.3 Scoping

Scoping is the process to involve interested and affected parties with the project, determine important issues, eliminate unimportant issues, identify the resources that may be affected by the project proposal, and to explore the possible alternative ways of achieving the proposal while minimizing impacts.

3.3.1 Scoping Efforts

Internal scoping involved input from Park employees and NPS regional staff. Internal scoping was held early in the process between Park staff and NPS regional personnel to determine relevant issues and documentation level. In addition, the proposed trail and additional parking areas were discussed with Park staff to determine impacts on Park staff and resources. Park staff was generally in favor of the multi-use trail, but divided on the need for and location of additional parking. Although existing roadside parking was considered a safety issue, some Park staff are opposed to any additional land within the Park being converted to paved parking areas. The most favorable location for additional parking was considered to be the open field below the administrative offices, and southwest of the Visitor Center.

External scoping efforts involved meetings with other regulatory and governmental agencies, public meetings, and direct mail notifications. Meetings with stakeholders including the Federal Highway Administration (FHWA), Georgia Department of Transportation (GDOT), and Cobb County Department of Transportation (Cobb DOT) were valuable in determining the level of environmental documentation with the FHWA, coordination between the agencies, important issues to address, and the assignment of responsibility for tasks associated with the project.

Public information meetings were held for the project on May 2, 2006 and May 17, 2007. The first public meeting was held at Grace Community Church adjacent to the Park. A legal advertisement was placed in the Marietta Daily Journal and Cobblin (the electronic newsletter for Cobb County), and signs were posted along roads adjacent to the Park announcing the meeting. A news release about the project and announcing the public meeting was mailed directly to 63 businesses near the Park and 37 other interested stakeholders. Approximately 41 people attended the public meeting. Twenty comments were submitted during the 30 day comment period. The major concerns expressed in comments from the meeting included:

- Local businesses were concerned about the speed limit reduction and truck restriction through the Park. Many of the business owners favored an intersection improvement and signal installation at the intersection of White Circle Road and US 41. This would give the businesses in the White Circle Road area direct access to US 41, thereby benefiting the Park because trucks would not need to use Old 41 Highway.
- Many area residents favored a multi-use trail to provide recreational opportunities and access through the Park, but not if construction would severely jeopardize the natural features of the Park.
- Some residential property owners, primarily along Ridenour Road/Greens Chapel Road and adjacent subdivisions viewed the trail as a waste of taxpayer money, perceived the trail as a waste because no one would use it, did not want the trail adjacent to their property, and felt that construction of a trail would result in an increase in crime to the area.
- Comments were made suggesting the trail should continue down Old 41 Highway, past Ridenour Road, to Barrett Parkway

A second public meeting was held on May 17, 2007. In an effort to attract more Park visitors, the second meeting was held at the Park's Visitor Center. Notification for this meeting was primarily conducted through direct mail and posting of flyers at area apartment complexes and residential subdivisions around the Park. Flyers were also placed at the Visitors Center several weeks prior to the meeting, and signs were posted along roads adjacent to the Park advertising the date, time, and location of the meeting. Direct mail was again used to notify local businesses (63), concerned stakeholders (35), and local residents (42). Approximately 50 people attended this meeting, and 18 comments were received at the meeting or during the 30 day comment period. Major concerns expressed from written comments or during the meeting were the same as expressed during the May 2, 2006 public meeting.

Many of the residents living along Ridenour Road/Greers Chapel Road and adjoining roads who were adamantly opposed to a trail along Ridenour Road/Greers Chapel Road requested an additional meeting with the engineering design firm for the project and the NPS. An informal meeting to allow these residents to express their concerns was held at the offices of Florence and Hutcheson on May 31, 2007. The residents continued to express their dissatisfaction with the location of a trail in close proximity to their homes and the concern that the trail would result in an increase in crime in the area. They offered other alternative routes including through the Ridenour development, and northwest along Old 41 Highway.

3.3.2 Scoping Results

There was support for construction of a multi-use trail within the Park and additional parking expressed from internal and external scoping efforts. However, the support was conditional on there being no significant impacts to the natural and historical aspects of the Park. Although there were concerns from the Park about where additional parking could be provided without impacts to the Park, there was agreement that there is a lack of sufficient parking, and that changes were necessary to improve the safety of visitors by eliminating unsafe roadside parking on Old 41 Highway.

There was more controversy about the location of the trail outside the Park boundary. Residents who live along Ridenour Road/Greers Chapel Road were opposed to the trail through their neighborhoods. Alternatively, residents who live on Old 41 Highway northwest of the Park, particularly in The Reserve residential development were concerned that no trail or sidewalk would provide access to the Park along Old 41 Highway. As a result of opinions expressed during scoping efforts, an additional alternative trail route was proposed for assessment. The trail alignment along Ridenour Road/Greers Chapel Road would be dismissed from further study and another alternative added which would continue on Old 41 Highway past Ridenour Road to Barrett Parkway.

Local businesses use Old 41 Highway through the Park to access Barrett Parkway and to safely access US 41. Most of the local businesses did not support the truck restriction unless there was a safer alternative for their trucks to access US 41. Cobb DOT is in the planning and design phase of an intersection improvement project at White Circle Road and US 41. This intersection would also include a traffic signal, providing the businesses north of the Park between Old 41 Highway and US 41 an alternative route to Old 41 Highway through the Park.

3.4 Other Projects in the Area

There are a number of ongoing and proposed projects to address traffic and pedestrian use within the Park. These projects include, but are not limited to:

- The Alternate Transportation Study for Bus Shuttle Service to the top of Kennesaw Mountain (NPS on-going),
- The Alternate Transportation Study to address whole Park needs (NPS on-going),
- The Old 41 Highway bridge replacement over the CSX Railroad (Cobb County, scheduled for fall 2008),
- Intersection improvements to White Circle and US 41 (Cobb County, scheduled for fall 2008), and
- The General Trail Management Plan Environmental Assessment (NPS on-going).

4. Issues and Impact Topics

4.1 Impact Topics Considered for the EA

Impact topics are derived from issues raised during internal and external scoping activities. Not every conceivable impact warrants analysis. The following impact topics merit consideration in this EA:

Air Quality: The federal Clean Air Act of 1970 requires the Park to meet federal, state, and local air pollution standards, as well as protect the Park from adverse pollution impacts. While the construction of a paved recreational trail would not adversely impact air quality within the Park, traffic use of the proposed additional parking lots can impact air quality within the Park. For these reasons air quality impacts are analyzed in this EA.

Archaeological Resources and Historic Structures: Section 106 of the National Historic Preservation Act of 1966 and NPS Management Policies are two of several regulations and guidance documents that specify procedures to identify and protect cultural resources within the Park. The Park itself is listed in the National Register of Historic Places (1976). While the intent of the proposed trail and parking lot projects are to enhance the visitors experience in the Park without impacting its cultural identity, potential impacts to cultural resources are addressed in this EA.

Geology and Topography: NPS Policies require the protection of geologic features and the natural topographic landscape. The proposed parking lot may require some grading during construction to provide for appropriate storm water drainage. Grading and fill may be required for trail construction to ensure a satisfactory grade. No drilling or deep excavation that would affect Park geology would occur from the project. The effect on geology and topography from the proposed project are addressed in the EA.

Park Operations: The construction and maintenance of the trail and parking area would be conducted by Cobb County. However, Park staff would patrol these areas, along with local law enforcement, during Park operating hours. While additional staff would not be required for inspection and maintenance, there would be adjustments and additional responsibilities for Park staff, and therefore the effect of this project on Park operations is addressed in this EA.

Scenic and Aesthetic Value Concerns: The largely undisturbed, natural landscapes of the Park are one of the most popular attractions of the Park. The Park represents the largest undisturbed green space in rapidly developing Cobb County. The proposed trail and additional parking lot would be located in areas where previous disturbance has occurred, to minimize impacts to natural resources. However, these hardscape improvements would change the aesthetic scenery of the Park, and are therefore addressed in this EA.

Soils: NPS Policy requires the protection of soil resources and maximization of efforts to prevent erosion, physical removal, or contamination of the soils. The proposed projects would occur to the maximum extent possible in areas that are already disturbed. However, there may be some soil removal resulting from construction activities. In addition, the introduction of additional hard surface areas would require storm water improvements to prevent erosion of adjacent areas. The effects of the project on soils within the Park are addressed in this EA.

Transportation: NPS policies provide guidance for transportation infrastructure and vehicle use on public roads that pass through Park land. Proposed traffic management improvements would occur from the proposed reduction of posted speed limits and restriction of certain types of large truck traffic on Old 41 Highway. In addition, construction of a new parking lot would introduce traffic management considerations for the Park. A further analysis of transportation issues is included in this EA.

Vegetation: Vegetation within the proposed areas for construction of the trail consists of a pine/hardwood mix. Areas considered for construction also contain areas previously disturbed and used for parking. Areas under consideration for additional parking include pine/hardwood forest or grassed fields. Although construction of the trail and parking area

would utilize disturbed areas to the maximum extent possible, there may be some impact to grasses, shrubs, ground cover, and some saplings and small trees. For these reasons, impacts to vegetation are considered in this EA.

Visitor Safety: One of the major purposes for the project is to improve safety for visitors parking along Old 41 Highway. The trail system would also allow for use of Park facilities and resources in a safe manner. For these reasons, visitor safety is addressed in the EA.

Visitor Use, Understanding, and Appreciation: The 1916 Organic Act as well as NPS Management Policy includes guidance and requirements to allow for public enjoyment and understanding of the scenic, cultural, and natural resources within the Park. The Park allows for hiking on groomed and designated trails, bike riding on paved roads, picnicking, interpretation and study of the historic setting through living history exhibits, museum, and guided tours. The proposed trail and parking lot may be considered a benefit to improve the visitor experience, or a distraction to the natural scenery and historic significance of the Park. The impact of the proposed project on visitor use and understanding are further analyzed in this EA.

Water Resources (Water quality and streams): Protection of water quality consistent with the Clean Water Act and NPS policy is required. There are one intermittent and four ephemeral streams within the project area for the trail on Old 41 Highway and the parking lot locations. Impacts to streams, storm water runoff, and drainage management would be a part of the project to address water quality. During construction procedures would be implemented to prevent adverse impacts to water quality. The impact of the proposed project on streams within the project area is further analyzed in this EA.

Wildlife: The construction of the trail and parking lots would be located primarily in areas previously disturbed, so that habitat for the various wildlife species in the Park is not damaged or eliminated. There is similar habitat within the Park for wildlife in those areas that would be impacted by the proposed project. However, even temporary disruption of wildlife habitat or loss of areas used by wildlife populations can result in impacts to wildlife activities, habits, and travel patterns. For these reasons a further discussion of the impacts from the proposed project to wildlife populations is discussed further in this EA.

4.2 Impact Topics Dismissed from Detailed Analysis

Environmental Justice: Presidential Executive Order 12898 requires Federal agencies to identify and address disproportionate impacts of programs, policies, and activities on minority and low-income populations. None of the proposed parking lot or trail alternatives would result in disproportionate health or environmental effects on minorities or low-income populations. Therefore this topic was dismissed from further discussion in the EA.

Noise: Short term increases in noise would result from construction activities. However, the completed projects by their existence would not result in or add to noise levels to the Park. No motorized vehicles would be allowed on the trail. The parking lot would not generate additional traffic but would provide improved parking facilities for visitors already coming to the Park. For these reasons the impact of noise was dismissed from further analysis in the EA.

Prime and Unique Farmlands: Prime and unique farmlands are defined as lands that afford the best combination of physical and chemical properties to produce crops, or are used for specific high value food or crops. Since lands within the Park are not available for farming, this impact topic was dismissed from further analysis.

Socioeconomic Environment: The proposed project would not directly impact local or regional social, economic, or demographic elements for local populations. Although the project would provide additional recreational opportunities for residents adjacent and near the Park, the trail and parking lot would not cause an increase in residential, commercial, or retail development, and would not result in population shifts to the area around the Park. Changes to the socioeconomic environment are not further analyzed in the EA.

Threatened, Endangered, Candidate Species, and Species of Special Concern: No federally listed threatened or endangered species or suitable habitat was identified within the project areas. No federally listed species are known to exist within the Park. A response from the Georgia Department of Natural Resources Natural Heritage Program regarding

any known identification of federal or state listed species within a three mile radius of the project area did not reveal any federally listed species within this search radius. Several state protected species were listed within the three mile radius, the closest being 1.5 miles from the project area. However none of these state listed species, or suitable habitat, was identified within the project area for the trail or parking lot. For these reasons a further discussion for Threatened, Endangered, Candidate Species, and Species of Special Concern is not included in the EA.

Water Resources (Wetlands and Floodplains): The project areas for parking lots and the multi-use trail are not within the 100-year floodplain, and therefore a further discussion of impacts to floodplains is not included in the EA. There are no wetlands within the project area. A further discussion of wetland impacts has not been included in the EA.

Wilderness Lands and Values: Since there are no proposed or designated wilderness areas within the proposed project areas a further analysis of impacts from the trail and parking lot is not included in the EA.

Utilities: The proposed construction of the trail and parking lots would not result in a temporary or permanent disruption or impact to gas, water, sewer, electricity, or fiber optic utilities. The trail would not include pedestrian lighting. Security lighting would be provided for the additional parking lots. However this would not result in an adverse impact to the Park's utilities or the surrounding area. A discussion of impacts to utilities from the proposed project has been eliminated from further discussion in the EA.

5. Proposed Actions and Alternatives

5.1 Introduction

In addition to the No Action Alternatives for a trail and parking lot, five trail alternatives and four parking lot alternatives were considered to address the purpose and need for the proposed project. Trail alternatives are identified by numbers (Alternatives 1 through 5) and parking lot alternatives are identified by letters (Alternatives A through D). Trail alternatives are depicted on Figures 2 through 6 following each alternative description. Parking lot alternatives are shown on a Figure 7 located prior to the alternative descriptions. The alternatives were developed based on public comment, input from the Park staff, and coordination with stakeholders and other local, state, and federal agencies.

Additional safety concerns include the existing posted speed limit on Old 41 Highway and the use of Old 41 Highway by large trucks. While neither of these issues is directly linked to a particular trail or parking lot alternative, addressing these safety issues is consistent with the stated purposes of the project.

5.2 No Action Alternative

Under this alternative visitors would continue to have access to the portion of the Mountain to Rivers Trail that begins at the Visitor Center and continues southeasterly toward Marietta, but there would be no other trails constructed. Existing parking areas would continue to be used without increased capacity for anticipated increased attendance to the Park. The existing unsafe roadside parking on Old 41 Highway would remain. When evaluated to determine if it meets the Purpose and Need, the no action alternative:

- Would not provide alternative transportation for local residents and Park visitors,
- Would not connect to the existing and proposed Cobb County trail system and enhance access to area retail, commercial, business, and mass transit facilities,
- Increase parking capacity for trail users and Park visitors with a new parking lot outside the Park boundary,
- Would not eliminate unsafe parking locations,
- Would not alleviate traffic congestion, and
- Would not provide additional interpretive opportunities.

5.3 Alternatives for a Multi-Use Trail

Alternative 1 –

Construct the trail on the northeast side of Old 41 Highway on the road shoulder to Ridenour Road. Continue the trail on the east side of Ridenour Road along the road shoulder to the Park boundary. The trail would cross the CSX railroad on a separate pedestrian bridge constructed parallel to the new bridge on Old 41 Highway Road (see Figure 5). Construction staging would occur on the CSX railroad parcel in the southern quadrant of the CSX railroad and Old 41 Highway – This alternative would remove the unsafe roadside parking from the northeast side of Old 41 Highway. New curb and gutter would be added to the southwest side of Old 41 Highway to eliminate unsafe roadside parking. This alternative would provide a safe route for pedestrians to the Visitors Center and other Park amenities. This eight to 10-foot wide paved trail would be separated from the roadway by a two to five-foot grass strip and curb and gutter. There would be no continuation of a trail outside the Park boundary, and therefore no connectivity to the larger Cobb County trail system. The trail would provide interpretive opportunities for relating to the historic significance and would enhance the visitor's experience through natural areas of the Park. The dedicated pedestrian bridge would provide an added safety benefit for pedestrians crossing CSX railroad. When evaluated to determine if it meets the Purpose and Need, Trail Alternative 1:

- Would provide alternative transportation for local residents and Park visitors,
- Would not connect to the existing and proposed Cobb County trail system and enhance access to area retail, commercial, business, and mass transit facilities,
- Would eliminate unsafe parking locations, and
- Would provide additional interpretive opportunities.

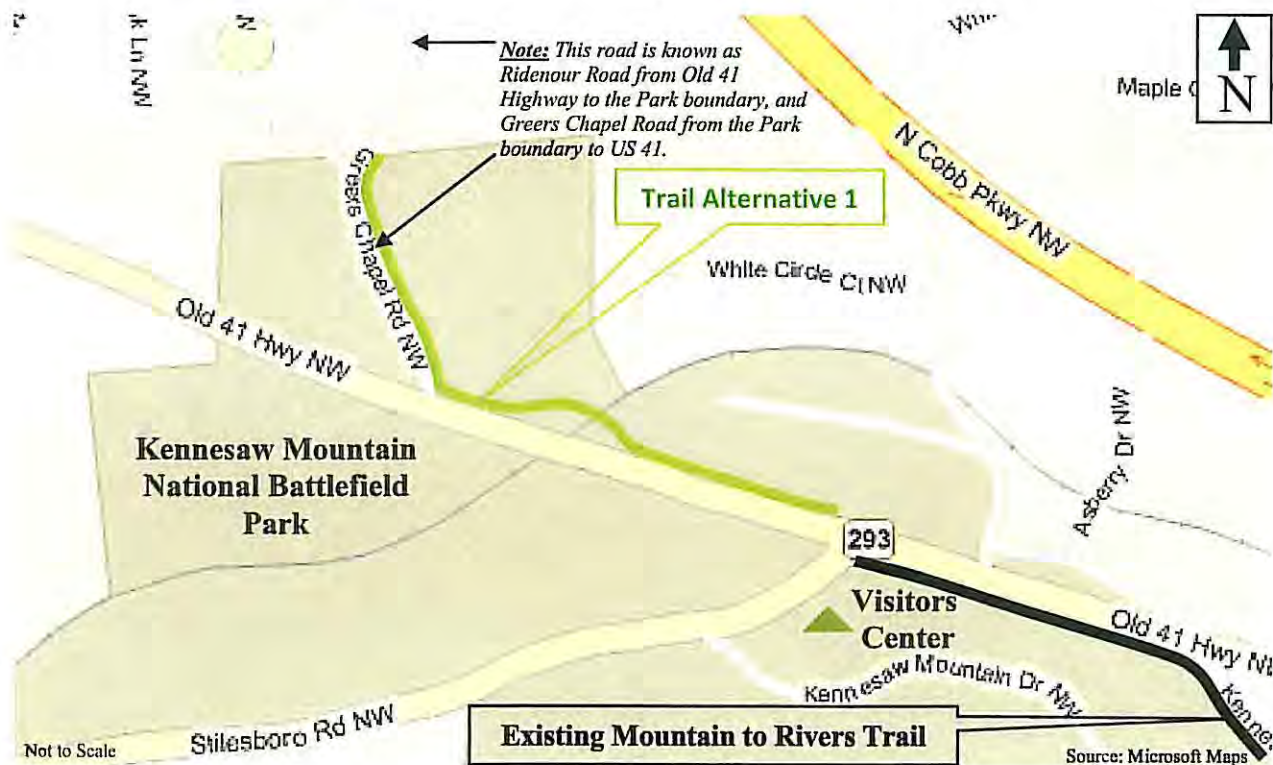


Figure 2 – Trail Alternative 1

This alternative was the least preferred by the public. As a result of scoping efforts, many of the residents along Ridenour Road/Greers Chapel Road expressed opposition to the trail along the road near their houses. The residents were concerned about an increase in crime and illegal activity because of the trail construction, and impacts of these concerns due to the proximity of the trail to their homes. Due to these concerns, continuation of the trail outside the Park along Ridenour Road/Greers Chapel Road was eliminated from consideration. There are no plans or other proposed projects by

county or state entities for a trail along this alignment outside the Park boundary. The trail through the Park would terminate at the Park boundary on Ridenour Road/Greers Chapel Road, preventing any connectivity between this trail and area residential, commercial, and business developments and eliminating the functionality of the alignment. It would not connect to the existing or planned trail system of Cobb County.

In addition, there would be no need for a separate pedestrian bridge over the CSX railroad. The planned replacement of the Old 41 Highway bridge over CSX railroad would be designed to accommodate the eight to 10-foot multi-use trail. This is a separate project that is been scheduled to coincide with construction of the trail.

Because Trail Alternative 1 does not meet the Purpose and Need for the project, **this alternative was dismissed from further consideration.**

Alternative 2 –

Construct the trail on the northeast side of Old 41 Highway on the road shoulder, with a pedestrian bridge over the CSX railroad, and continuation of the trail north through a wooded tract within the Park, terminating at the Park boundary on Ridenour Road (see Figure 6). Construction staging would occur on the CSX railroad parcel in the southern quadrant of the CSX railroad and Old 41 Highway – This alternative would remove the unsafe roadside parking from the northeast side of Old 41 Highway. New curb and gutter would be added to the southwest side of Old 41 Highway to eliminate unsafe roadside parking. This alternative would provide a safe route for pedestrians to the Visitors Center and other Park amenities. This eight to 10-foot wide paved trail would be separated from the roadway by a two to five-foot grass strip and curb and gutter. There would be no continuation of a trail outside the Park boundary, and therefore no connectivity to the larger Cobb County trail system. The trail would provide interpretive opportunities for relating to the historic significance and would enhance the visitor's experience through natural areas of the Park. The dedicated pedestrian bridge would provide an added safety benefit for pedestrians crossing CSX railroad. When evaluated to determine if it meets the Purpose and Need, Trail Alternative 2:

- Would provide alternative transportation for local residents and Park visitors,
- Would not connect to the existing and proposed Cobb County trail system and enhance access to area retail, commercial, business, and mass transit facilities,
- Would eliminate unsafe parking locations, and
- Would provide additional interpretive opportunities.

This alternative was the least preferred by the public. As a result of scoping efforts, many of the residents along Ridenour Road/Greers Chapel Road expressed opposition to the trail along the road near their houses. The residents were concerned about an increase in crime and illegal activity because of the trail construction, and impacts of these concerns due to the proximity of the trail to their homes. Due to these concerns, continuation of the trail outside the Park along Ridenour Road/Greers Chapel Road was eliminated from consideration.

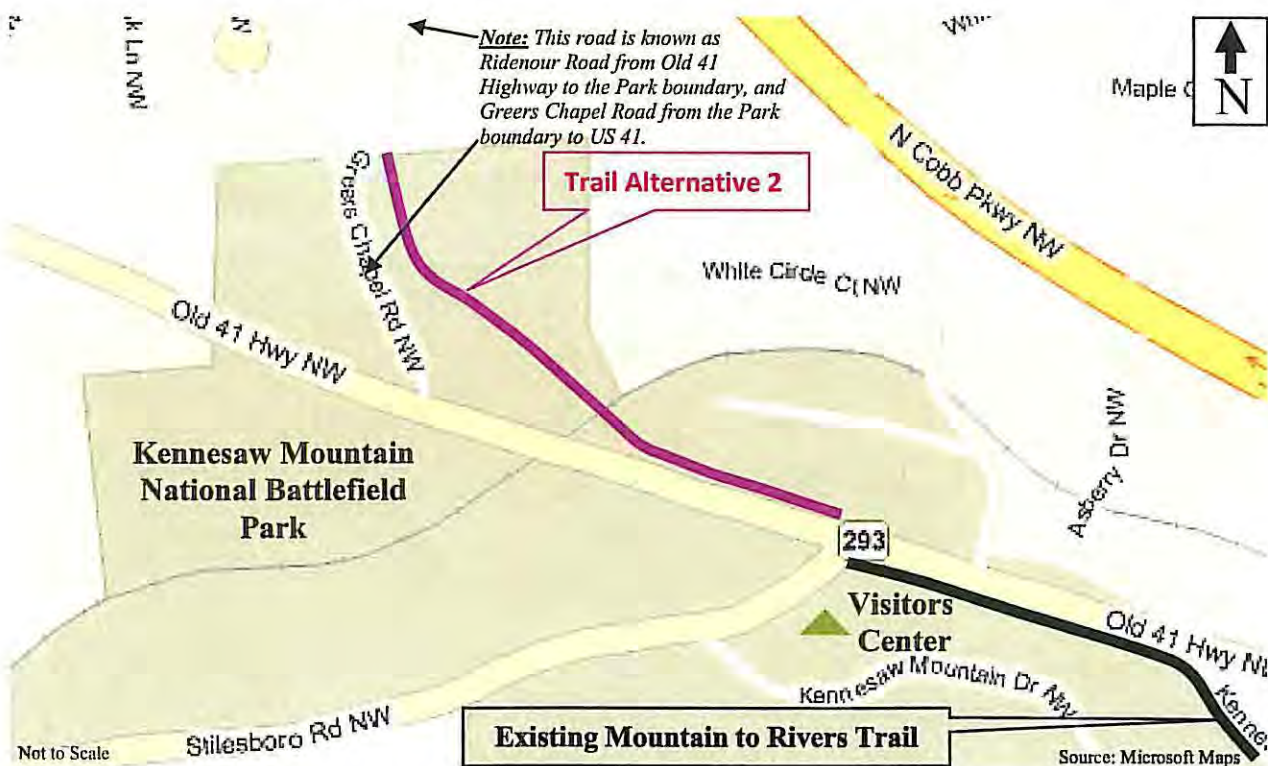


Figure 3 – Trail Alternative 2

There are no plans or other proposed projects by county or state entities for a trail along this alignment outside the Park boundary. The trail through the Park would terminate at the Park boundary on Ridenour Road/Greens Chapel Road, preventing any connectivity between this trail and area residential, commercial, and business developments and eliminating the functionality of the alignment. It would not connect to the existing or planned trail system of Cobb County.

In addition, there would be no need for a separate pedestrian bridge over the CSX railroad. The planned replacement of the Old 41 Highway bridge over CSX railroad would be designed to accommodate the eight to 10-foot multi-use trail. This is a separate project that is been scheduled to coincide with construction of the trail.

Because Trail Alternative 2 does not meet the Purpose and Need for the project, **this alternative was dismissed from further consideration.**

Alternative 3 –

Construct the trail on the northeast side of Old 41 Highway on the road shoulder to Ridenour Road. Continue the trail on the east side of Ridenour Road along the road shoulder to the Park boundary. The trail would cross the CSX railroad on a new bridge on Old 41 Highway Road that would be wide enough to safely accommodate the eight to 10-foot trail (see Figure 4). Construction staging would occur on the CSX railroad parcel in the southern quadrant of the CSX railroad and Old 41 Highway – This alternative would remove the unsafe roadside parking from the northeast side of Old 41 Highway. New curb and gutter would be added to the southwest side of Old 41 Highway to eliminate unsafe roadside parking. This alternative would provide a safe route for pedestrians to the Visitors Center and other Park amenities. This eight to 10-foot wide paved trail would be separated from the roadway by a two to five-foot grass strip and curb and gutter. There would be no continuation of a trail outside the Park boundary, and therefore no connectivity to the larger Cobb County trail system. The trail would provide interpretive opportunities for relating to the historic significance and would enhance the visitor's experience through natural areas of the Park. Cobb County is replacing the bridge on Old 41 Highway over the CSX railroad. The preliminary design for the new bridge would include an eight to 10-foot pedestrian crossing for continuation of the trail over the bridge. Cobb County is coordinating the scheduling of the bridge replacement with construction of the Noonday Creek Multi-Use Trail. When evaluated to determine if it meets the Purpose and Need, Trail Alternative 3:

- Would provide alternative transportation for local residents and Park visitors,
- Would not connect to the existing and proposed Cobb County trail system and enhance access to area retail, commercial, business, and mass transit facilities,
- Would eliminate unsafe parking locations, and
- Would provide additional interpretive opportunities.



Figure 4 – Trail Alternative 3

This alternative was the least preferred by the public. As a result of scoping efforts, many of the residents along Ridenour Road/Greers Chapel Road expressed opposition to the trail along the road near their houses. The residents were concerned about an increase in crime and illegal activity because of the trail construction, and impacts of these concerns due to the proximity of the trail to their homes. Due to these concerns, continuation of the trail outside the Park along

Ridenour Road/Greers Chapel Road was eliminated from consideration. There are no plans or other proposed projects by county or state entities for a trail along this alignment outside the Park boundary. The trail through the Park would terminate at the Park boundary on Ridenour Road/Greers Chapel Road, preventing any connectivity between this trail and area residential, commercial, and business developments and eliminating the functionality of the alignment. It would not connect to the existing or planned trail system of Cobb County. Because Trail Alternative 3 does not meet the Purpose and Need for the project, **this alternative was dismissed from further consideration.**

Alternative 4 –

Construct the trail on the southwest side of Old 41 Highway on the road shoulder. The trail would cross the CSX railroad on a new bridge on Old 41 Highway that would be wide enough to safely accommodate an eight to 10-foot trail, and continue on the southwest side of Old 41 Highway to the Park boundary (see Figure 2). Construction staging would occur on the CSX railroad parcel in the southern quadrant of the CSX railroad and Old 41 Highway – This alternative would remove the unsafe roadside parking from the southwest side of Old 41 Highway to the Park boundary. New curb and gutter would be added to the northeast side of Old 41 Highway to eliminate unsafe roadside parking. This alternative would provide a safe route for pedestrians to the Visitors Center and other Park amenities. This eight to 10-foot wide paved trail would be separated from the roadway by a two to five-foot grass strip and curb and gutter. The trail would continue outside the Park boundary, and would connect to Phase II of the Noonday Creek Multi-Use Trail, and would provide connectivity to the larger Cobb County trail system. The trail would provide interpretive opportunities for relating to the historic significance of the Park, and would enhance the visitor's experience through natural areas of the Park. Cobb County is replacing the bridge on Old 41 Highway over the CSX railroad. The preliminary design for the new bridge would include an eight to 10-foot pedestrian crossing for continuation of the trail over the bridge. Cobb County is coordinating the scheduling of the bridge replacement with construction of the Noonday Creek Multi-Use Trail. When evaluated to determine if it meets the Purpose and Need, Trail Alternative 4:

- Would provide alternative transportation for local residents and Park visitors,
- Would connect to the existing and proposed Cobb County trail system and enhance access to area retail, commercial, business, and mass transit facilities,
- Would eliminate unsafe parking locations, and
- Would provide additional interpretive opportunities.



Figure 5 – Trail Alternative 4

This alternative was most preferred by the public. Public comments indicated a preference for this alternative because it would have the least impact on natural features of the Park. It was preferred by residents along Ridenour Road/Greers Chapel Road because the trail would not continue near their homes, and was favored by residents living along Old 41 Highway who wanted convenient, safe access to the Park.

The environmentally preferred alternative is determined by applying the criteria suggested in NEPA, which is guided by the Council on Environmental Quality (CEQ). The CEQ provides direction that the environmentally preferable alternative is the alternative that will promote the national environmental policy as expressed in Section 101 of NEPA. Generally, these criteria mean the environmentally preferable alternative is the alternative that causes the least damage to the biological and physical environment and that best protects, preserves, and enhances historic, cultural, and natural resources (Federal Register, 1981). Trail Alternative 4 is the environmentally preferred alternative because it:

- Fulfills the responsibilities of each generation as trustee of the environment for succeeding generations;

This trail alternative provides long term improvements to the Park with little impact to natural and cultural environment of the Park, to be enjoyed and used by future generations.

- Assures for all generations safe, healthful, productive, and esthetically and culturally pleasing surroundings;

This trail alternative would provide safe access for pedestrians, eliminate existing unsafe conditions, provide convenient access to Park facilities, and constructed within the aesthetic elements of the Park without detracting from them.

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

This trail alternative would provide convenient safe access to parking lots, the Visitor Center, activity areas, and hiking trails within the Park.

- Preserves important historic, cultural and natural aspects of our national heritage and maintaining, wherever possible, an environment that supports diversity and variety of individual choice;

This trail alternative would promote the cultural and historic significance for which the Park was created, to commemorate and memorialize those individuals who fought and died in the Atlanta Campaign of the Civil War. The trail would allow for additional interpretive opportunities to areas of the Park.

- Achieves a balance between population and resource use that will permit high standards of living and a wide sharing of life's amenities; and

This trail alternative would provide additional safe facilities to accommodate the increasing number of visitors to the Park and their access to Park facilities and amenities. The trail would be constructed in association with other areas projects to provide accessibility to the Park from surrounding residential and commercial areas, without adversely impacting them.

- Enhances the quality of renewable resources and approaching the maximum attainable recycling of depletable resources.

This trail alternative would have no effect to renewable resources.

Because Trail Alternative 4 meets the Purpose and Need for the project, **this alternative was included for further consideration.**

5.3.1 Sustainable Design for the Environmentally Preferred Trail Alternative / NPS Preferred Alternative

The NPS has adopted the concept of sustainable design as a guiding principle of facility planning and development. The objectives of sustainability are to:

- Design Park facilities to minimize adverse effects on natural and cultural values, to reflect their environmental setting, and to maintain and encourage biodiversity,
- To construct and retrofit facilities using energy-efficient materials and building techniques,

- To operate and maintain facilities to promote their sustainability, and
- To illustrate and promote conservation principles and practices through the sustainable design and ecologically sensitive use.

Essentially, sustainability is living within the environment with the least impact on the environment. The environmentally preferred trail alternative subscribes to and supports the practice of sustainable planning, design, and use.

5.3.2 Mitigation Measures for the Environmentally Preferred Trail Alternative / NPS Preferred Alternative

Avoidance and minimization of impacts from construction of the preferred alternative to natural and cultural resources have been implemented where possible. Mitigation measures are presented as part of the preferred alternative. The following actions have been developed to lessen the effects of the preferred alternative.

- **Placement of sediment and erosion control devices and implementation of Best Management Practices (BMP) to prevent sedimentation to streams in the project area.**
- **To improve visitor safety along Old 41 Highway, steps to enforce the 35 mile per hour (mph) speed limit would be implemented. The NPS' traffic trailer would be stationed along Old 41 Highway on a regular basis to alert vehicles of their driving speed. The Park would coordinate with Cobb County law enforcement officials to station their traffic trailer at other times during the month. Cobb County law enforcement would patrol and enforce the posted speed limit on a regular basis throughout the month.**
- **Construction of a parking lot for new trail users.**
- **Construction of a trailhead kiosk at the parking lot.**
- **Construction of curbing on Old 41 Highway and Ridenour Road opposite the multi-use trail to extend past Recreation Field #1 to exclude vehicles.**
- **Seed and re-vegetate the Old 41 Highway road shoulder behind the curbing.**

Alternative 5 –

Construct the trail on the northeast side of Old 41 Highway on the road shoulder. The trail alignment would cross Ridenour Road, and continue on the northeast side of Old 41 Highway to the Park boundary. The trail would cross the CSX railroad on a new bridge on Old 41 Highway Road that would be wide enough to safely accommodate the eight to 10-foot trail (see Figure 3). Construction staging would occur on the CSX railroad parcel in the southern quadrant of the CSX railroad and Old 41 Highway – This alternative would remove the unsafe roadside parking from the northeast side of Old 41 Highway. New curb and gutter would be added to the southwest side of Old 41 Highway to eliminate unsafe roadside parking. This alternative would provide a safe route for pedestrians to the Visitors Center and other Park amenities. This eight to 10-foot wide paved trail would be separated from the roadway by a two to five-foot grass strip and curb and gutter. The trail would continue outside the Park boundary, would connect to Phase II of the Noonday Creek Multi-Use Trail, and would provide connectivity to the larger Cobb County trail system. The trail would provide interpretive opportunities for relating to the historic significance, and would enhance the visitor's experience through natural areas of the Park. Cobb County is replacing the bridge on Old 41 Highway over the CSX railroad. The preliminary design for the new bridge would include an eight to 10-foot pedestrian crossing for continuation of the trail over the bridge. Cobb County is coordinating the scheduling of the bridge replacement with construction of the Noonday Creek Multi-Use Trail. When evaluated to determine if it meets the Purpose and Need, Trail Alternative 5:

- Would provide alternative transportation for local residents and Park visitors,
- Would connect to the existing and proposed Cobb County trail system and enhance access to area retail, commercial, business, and mass transit facilities,
- Would eliminate unsafe parking locations, and
- Would provide additional interpretive opportunities.

Because Trail Alternative 5 meets the Purpose and Need for the project, **this alternative was included for further consideration.**

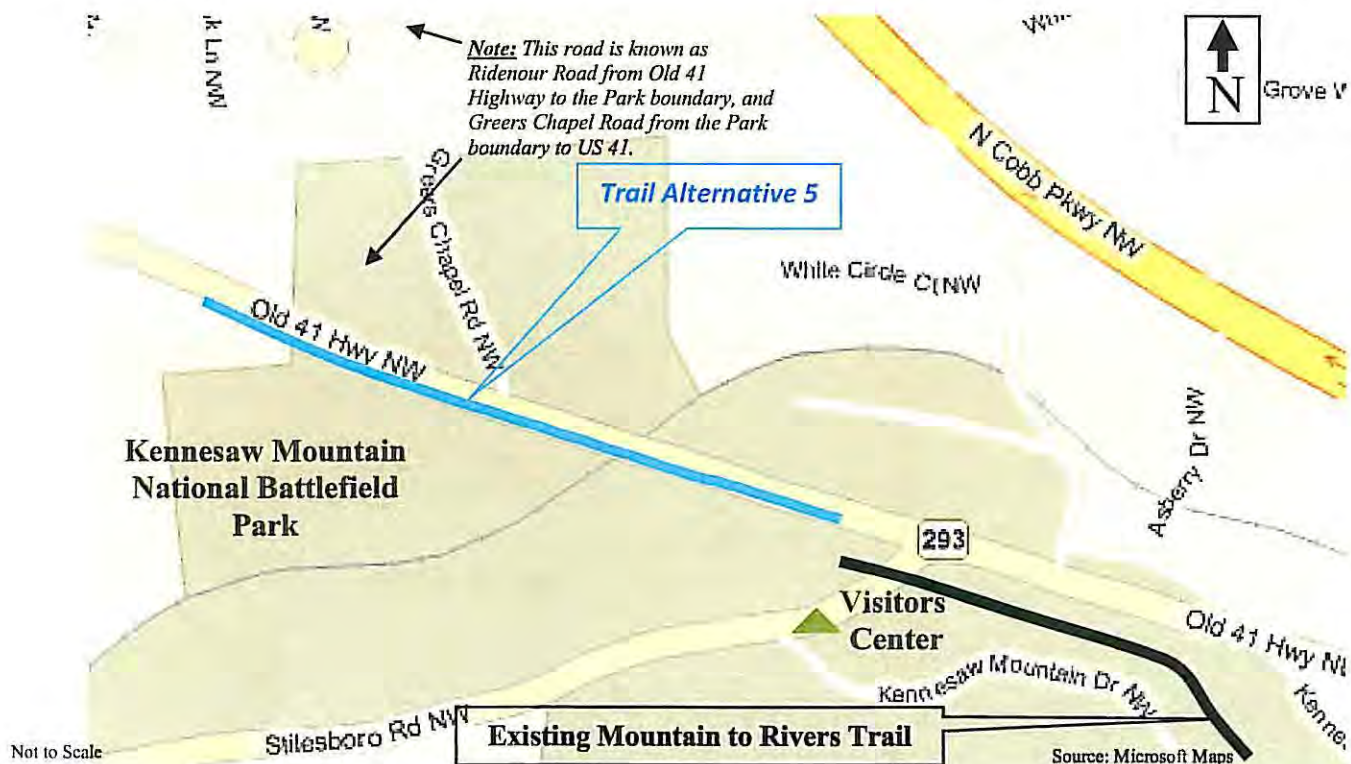


Figure 6 – Trail Alternative 5

This alternative was preferred by the public over any of the alternatives that continued the trail along Ridenour Road/Greers Chapel Road. However, it wasn't as favorable with residents on Old 41 Highway as Trail Alternative 4 because it isn't located on the same side of Old 41 Highway as the majority of residential development.

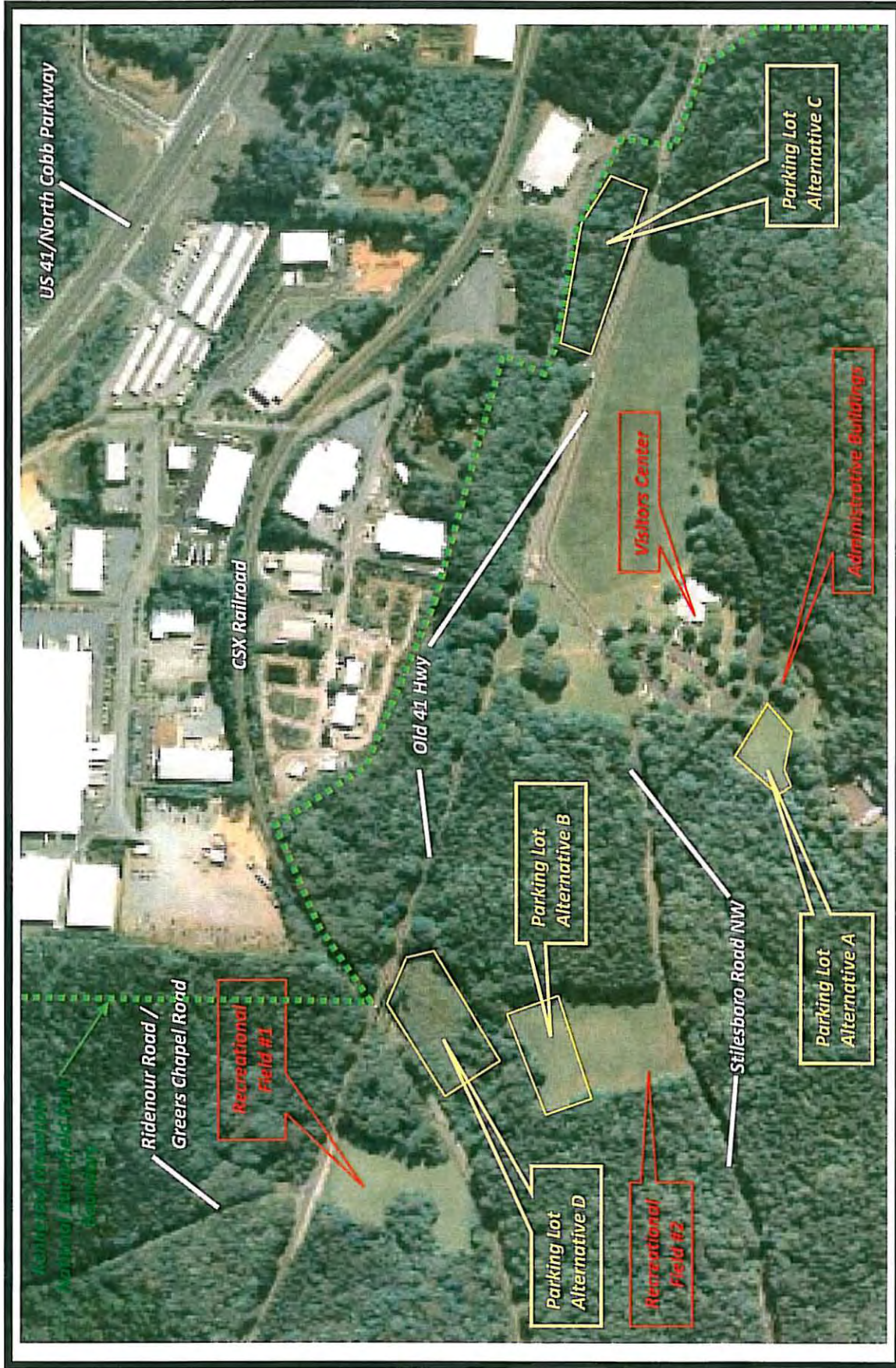


Figure 7 – Parking Lot Alternatives

5.4 Alternatives for Additional Parking Areas

Alternative A –

Construct a paved parking lot on approximately 0.75 acres within the Park. The proposed parking lot would be located south of the Visitors Center and west of the administrative buildings (see Figure 7). Construction staging would occur on the CSX railroad parcel in the southern quadrant of the CSX railroad and Old 41 Highway – This alternative would provide approximately 100 parking spaces. The parking lot would be constructed on a previously-disturbed open field. With the construction of the multi-use trail and new curb and gutter, roadside parking on Old 41 Highway would be eliminated. This new parking lot would replace those spaces and increase parking capacity with a safer parking location. Access to the lot would be provided from the existing Visitors Center parking lot, and therefore no additional access from Stilesboro Road would be required. This alternative would provide convenient access to the Visitors Center and Activity Field 2. When evaluated to determine if it meets the Purpose and Need, Parking Lot Alternative A (Across from HQ/VC):

- Would increase parking capacity,
- Would help eliminate unsafe parking locations,
- Would help alleviate traffic congestion, and
- Would provide additional interpretive opportunities.

Because Parking Lot Alternative A (Across from HQ/VC) meets the Purpose and Need for the project, **this alternative was included for further consideration.**

Alternative B –

Construction of a paved parking lot on approximately 2.0 acres of Activity Field 2 within the Park (see Figure 7). Construction staging would occur on the CSX railroad parcel in the southern quadrant of the CSX railroad and Old 41 Highway – This alternative would provide approximately 200 to 250 parking spaces. The parking lot would be constructed at the northwestern end of Activity Field 2, leaving the remainder of the field for recreational purposes. With the construction of the multi-use trail and new curb and gutter, roadside parking on Old 41 Highway would be eliminated. This new parking lot would replace those spaces and increase parking capacity, with a safer parking location. Access to the parking lot would be provided from an existing Park road on Old 41 Highway near the bridge over the CSX railroad. The road would be paved to accommodate traffic volumes. This alternative would provide access to the Visitors Center, Activity Field 2, and the environmentally preferred trail alternative. The existing established trail from Activity Field 2 to the Visitor Center parking lot will be closed. Access to the Visitor Center would be from the parking lot to the proposed multi-use trail by way of the Park road. From this point visitors would use the multi-use trail to the intersection of Stilesboro Road and Old 41 Highway and cross at the signalized, marked crossing to the existing trail leading to the Visitor Center. When evaluated to determine if it meets the Purpose and Need, Parking Lot Alternative B (Activity Field 2):

- Would increase parking capacity,
- Would help eliminate unsafe parking locations,
- Would help alleviate traffic congestion, and
- Would provide additional interpretive opportunities.

Because Parking Lot Alternative B (Activity Field 2) meets the Purpose and Need for the project, **this alternative was included for further consideration**

Alternative C –

Construct a paved parking lot on approximately 0.9 acre within the Park (see Figure 7). Construction staging would occur on the CSX railroad parcel in the southern quadrant of the CSX railroad and Old 41 Highway – This alternative would provide approximately 140 to 190 parking spaces. The site is a forested tract located between White Circle and White Road Court, northeast of the Visitors Center and Old 41 Highway. With the construction of the multi-use trail and new curb and gutter, roadside parking on Old 41 Highway would be eliminated. Access to the lot would be provided from Old 41 Highway. This alternative would provide convenient access to the Visitors Center and the existing Mountain to Rivers Trail. When evaluated to determine if it meets the Purpose and Need, Parking Lot Alternative C (White Circle Road):

- Would increase parking capacity,
- Would not help eliminate unsafe parking locations,

- Would not help alleviate traffic congestion, and
- Would not provide additional interpretive opportunities.

This location across Old 41 Highway from the Visitor Center would create a safety concern for visitors traveling from the parking lot to Park facilities. There is no pedestrian crosswalk at this location. Visitors would walk along the road shoulder to the intersection with Stilesboro Road to safely cross Old 41 Highway. There are no sidewalks between this parking lot location and the intersection with Stilesboro Road. Construction of a mid-block pedestrian crosswalk at the parking lot is an unsafe design. The location of this parking area near the intersection with Stilesboro Road would add to traffic congestion from cars turning into and exiting the parking lot. There are no archaeological resources or historic structures located near this site that would provide additional interpretive opportunities.

This alternative was the least favored by the public because it would involve clear cutting and removing a forested tract within the Park, and would affect the natural setting of the Park.

For these reasons, Parking Lot Alternative C (White Circle Road) does not meet the Purpose and Need for the project **and has been dismissed from further consideration.**

Alternative D –

Construct a paved parking lot on approximately three acres adjacent to the CSX railroad and Old 41 Highway, outside the Park boundary (see Figure 7). Construction staging would occur on this property. – This alternative would provide approximately 250 to 300 parking spaces. This alternative would add needed parking capacity without use of existing Park property. With the construction of the multi-use trail and new curb and gutter, roadside parking on Old 41 Highway would be eliminated. This new parking lot would replace those spaces and increase parking capacity, with a safer parking location. This location would allow direct access from Old 41 Highway to the parking lot. This location would allow safe, convenient access to Recreational Fields #1 and #2, the Park Visitors Center, and the new multi-use trail using newly constructed sidewalks or existing trails within the Park. When evaluated to determine if it meets the Purpose and Need, Parking Lot Alternative D (CSX):

- Would increase parking capacity,
- Would help eliminate unsafe parking locations,
- Would help alleviate traffic congestion, and
- Would provide additional interpretive opportunities.

This alternative was the most favored alternative by the public because it involves development of a tract of land not currently within the Park boundary, and would therefore not impact an existing scenic area. Also, with transfer of this property to the NPS after it is developed, it would increase the size of the Park.

The environmentally preferred alternative is determined by applying the criteria suggested in NEPA, which is guided by the Council on Environmental Quality (CEQ). The CEQ provides direction that the environmentally preferable alternative is the alternative that will promote the national environmental policy as expressed in Section 101 of NEPA. Generally, these criteria mean the environmentally preferable alternative is the alternative that causes the least damage to the biological and physical environment and that best protects, preserves, and enhances historic, cultural, and natural resources (Federal Register, 1981). Parking Lot Alternative D is the environmentally preferred alternative because it:

- Fulfills the responsibilities of each generation as trustee of the environment for succeeding generations;

This parking lot alternative is not located within the Park boundary, and therefore would not impact the natural and cultural resources within the Park. However the parking lot would eventually be added to the Park, providing improved facilities for use by future generations.

- Assures for all generations safe, healthful, productive, and esthetically and culturally pleasing surroundings;

This parking lot alternative would provide increased capacity and safer parking for present and future visitors. The parking lot would not be constructed on land currently within the Park boundary or used or accessed by visitors. Therefore this alternative would not diminish from the natural and cultural surroundings.

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

This parking lot alternative would provide additional, safe parking, as well as convenient access to Park resources and facilities.

- Preserves important historic, cultural and natural aspects of our national heritage and maintaining, wherever possible, an environment that supports diversity and variety of individual choice;

This parking lot alternative would be constructed outside the Park boundary and would therefore not impact the cultural and historic significance for which the Park was created, to commemorate and memorialize those individuals who fought and died in the Atlanta Campaign of the Civil War. The parking lot location would allow for additional interpretive opportunities.

- Achieves a balance between population and resource use that will permit high standards of living and a wide sharing of life's amenities; and

This parking lot alternative would provide additional safer facilities to accommodate the increasing number of visitors to the Park and their access to Park facilities and amenities. The trail would be constructed without adversely impacting surrounding residential and natural areas.

- Enhances the quality of renewable resources and approaching the maximum attainable recycling of depletable resources.

This parking lot alternative would have no effect to renewable resources.

Because Parking Lot Alternative D (CSX) meets the Purpose and Need for the project, **this alternative was included for further consideration**

5.4.1 Sustainable Design of the Environmentally Preferred Parking Lot Alternative / NPS Preferred Alternative

The NPS has adopted the concept of sustainable design as a guiding principle of facility planning and development. The objectives of sustainability are to:

- Design Park facilities to minimize adverse effects on natural and cultural values, to reflect their environmental setting, and to maintain and encourage biodiversity,
- To construct and retrofit facilities using energy-efficient materials and building techniques,
- To operate and maintain facilities to promote their sustainability, and
- To illustrate and promote conservation principles and practices through the sustainable design and ecologically sensitive use.

Essentially, sustainability is living within the environment with the least impact on the environment. The environmentally preferred parking lot alternative subscribes to and supports the practice of sustainable planning, design, and use.

5.4.2 Mitigation Measures for the Environmentally Preferred Parking Lot Alternative / NPS Preferred Alternative

Avoidance and minimization of impacts from construction of the preferred alternative to natural and cultural resources have been implemented where possible. Mitigation measures are presented as part of the preferred alternative. The following actions have been developed to lessen the adverse effects of the preferred alternative.

- **Placement of sediment and erosion control devices and implementation of Best Management Practices (BMP) to prevent sedimentation to streams in the project area.**
- **Construction of a parking lot to replace parking along the road shoulder.**
- **Construction of a parking lot for new trail users.**
- **Maintenance of the parking lot and landscaping for at least two years.**

- **Installation of fencing around the parking lot to exclude visitor access to the CSX railroad tracks for the safety of visitors and to prevent the creation of social trails.**
- **Construction of parking lot lighting with timers or light sensitive sensors to minimize power consumption.**
- **Construction of electric gate/bollards at the parking lot entrance with a timer to avoid impacts to Park operations from personnel opening and closing the gates.**
- **Construction of a traffic counter at the parking lot entrance.**
- **Construction of a trailhead kiosk at the parking lot.**
- **Monitor the site during construction to identify any archaeological or historic resources that were not discovered during field surveys due to dense vegetation and ground cover.**

5.5 Parking Lot Alternatives Outside the Park Dismissed from Further Consideration

Areas outside the Park boundary were identified as potential locations for additional parking for trail users. These areas identified on Figures 8A and 8B.

- **Location 1.** Approximately three acres northeast of the Park, north of the intersection of Old 41 Highway and Kennesaw Avenue. This area consists of an undeveloped tract of land. The acreage of interest is a portion of a larger eight acre tract. There is no indication the owner of the property would parcel out and sell a portion of the total for a parking lot. Permission has not been obtained by the owner to survey the property to determine impacts to cultural and natural resources from construction of a parking lot.
- **Location 2.** An undeveloped parcel of unknown size west of the Park, north of the intersection of Old 41 Highway and Barrett Parkway. The property is owned by Chastain Developers, and is located between Old 41 Highway and residential townhomes. The property would be located on the opposite side of Old 41 Highway from the trail, requiring an unsafe mid-block pedestrian crosswalk, or additional costs to construct sidewalks along Old 41 Highway to the existing pedestrian crosswalk at the intersection of Old 41 Highway and Barrett Parkway. There is also a wetland and a perennial stream on the property that would be impacted by the development that would require permitting and mitigation due to the impacts.
- **Location 3.** Cobb County Water and Sewer Authority property, adjacent to the water tower located on Ridenour Road. Due to security concerns for the county's water supply, Cobb County will not allow parking on the property.
- **Location 4.** Property south of Ridenour Road, on the west side of US 41. Access to property would be difficult due to rock outcrops and topography resulting in increased construction costs for the parking lot and access. The size of an available area for the parking lot is limited due to the topography. Because the trail would not be located adjacent to Ridenour Road, this location would not provide convenient access for trail users.
- **Location 5.** Property north of Ridenour Road, on the west side of US 41. This subject location is occupied by a car wash. Because the trail would not be located adjacent to Ridenour Road, this location would not provide convenient access for trail users. A Georgia Power power line easement is located north of the car wash property. Existing terrain of this property would result in increased construction costs to develop, and access from Ridenour Road would be through the previously mentioned car wash. There is no indication the carwash property owner would allow the access, or if Georgia Power would allow a parking lot on their easement, due to safety and security concerns.
- **Location 6.** A parcel approximately 0.30 acre located on the west side of Vaughn Road between Roberts Boulevard and US 41 between two existing office buildings. The side of the property prohibited the site from further consideration. After improvements to construct the parking lot, the available area for parking would only allow approximately 30 parking spaces.




 = Parking Lot
 Location and
 Number

Figure 8A
 Parking Lot Areas Outside the Park

Source: Google Earth

Not To Scale

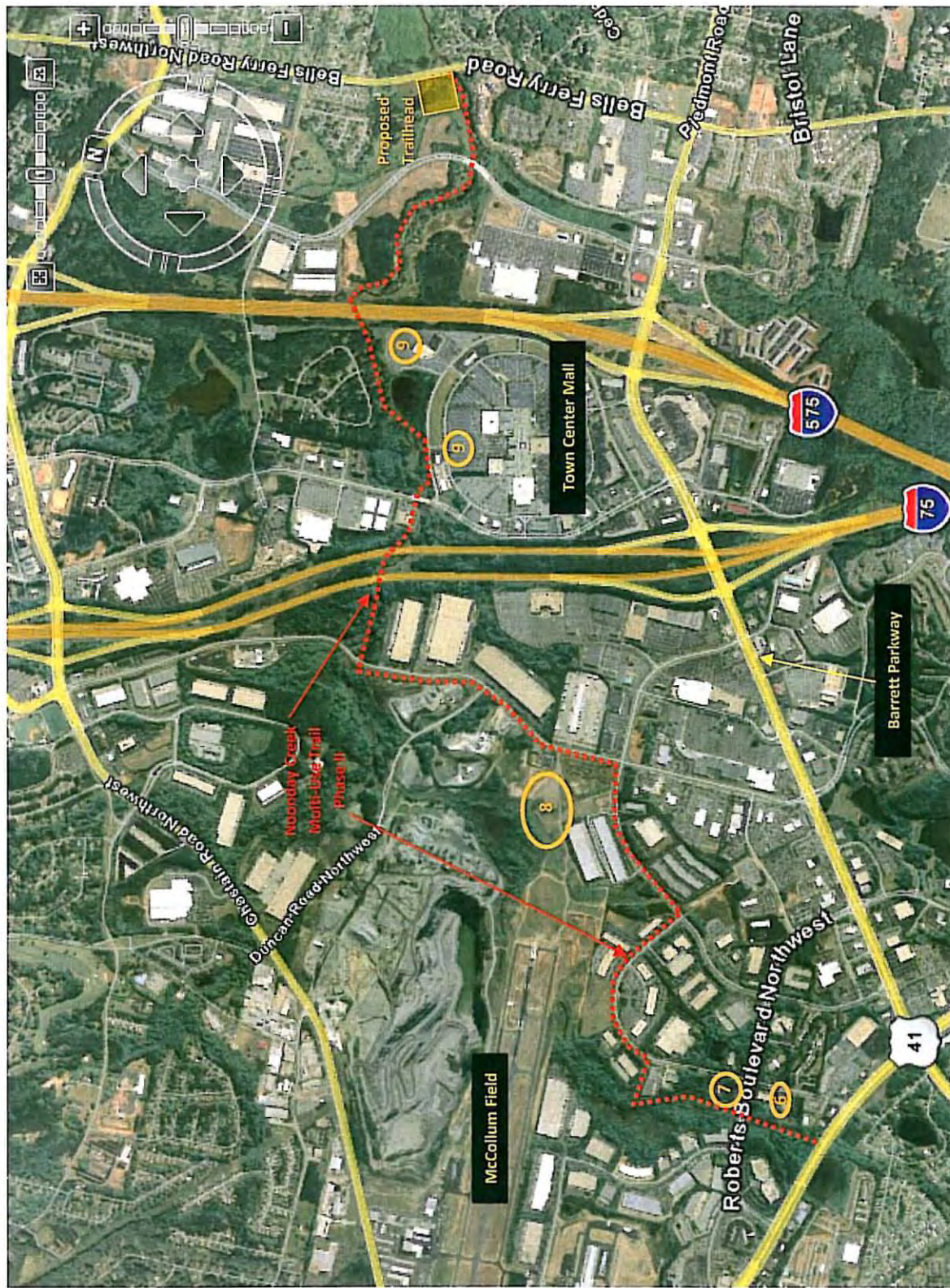



Figure 8B
Parking Lot Areas Outside the Park

 = Parking Lot Location and Number

Source: Google Earth

Not To Scale

- Location 7. An area in the northwest quadrant of Roberts Boulevard and Vaughn Road. This wooded tract is a low-lying area within the floodplain of Noonday Creek. The area is primarily a wetland, which would require permitting and mitigation due to impacts from construction.
- Location 8. An area of graded, undeveloped land at the northwest quadrant of Cobb Place Boulevard and Barrett Lakes Boulevard, east of the McCollum Field Airport. This area is in the flight path for the runways, and is also opposed by the Federal Aviation Administration (FAA) due to security reasons because of its proximity to airport property.
- Location 9. Use of existing Town Center Mall or movie theatre parking. The owners of the property would not consider designated use of their property for trail users because of concerns it would eliminate parking spaces for mall patrons, and from concerns over potential liability resulting from incidents that may occur on their property to non-mall patrons. In addition, the mall location is near the terminus of the Noonday Creek Multi-Use Trail at Bells Ferry Road. There are plans for a trail head with parking and restrooms at this location. The proximity of additional parking at the mall in close proximity (approximately ½ mile) to a planned trail head renders the site an impractical location for additional parking.

Other businesses and facilities with existing parking lots along the Noonday Creek Multi-Use Trail Phase II were approached about use of their lots for trail users. The owners who were approached stated the same liability concerns that were expressed by owners of Town Center Mall.

5.6 Construction Cost Comparison

Many factors and elements are involved when estimating construction costs, including labor, materials, insurance, and availability of contractors. Most of these factors are not fixed costs, and fluctuation in labor costs, availability and cost of materials, and a contractors work load usually impact construction costs. The following construction cost comparisons are based on current (2008) industry estimates.

Table 1
Trail Alternatives – Cost Comparison

Trail Alternative	Approximate Length	Construction Cost	Notes
1	0.65 mile	\$1,672,800.00	Includes cost of a separate pedestrian bridge over CSX railroad
2	0.62 mile	\$1,609,440.00	Includes cost of a separate pedestrian bridge over CSX railroad
3	0.64 mile	\$1,351,680.00	Trail to be located on road bridge over CSX railroad under a separate project
4	0.75 mile	\$1,584,000.00	Trail to be located on road bridge over CSX railroad under a separate project
5	0.77 mile	\$1,626,240.00	Trail to be located on road bridge over CSX railroad under a separate project

Table 2
Parking Lot Alternatives - Cost Comparison

Parking Lot Alternative	Acreage	Construction Cost	Notes
A	0.75	\$588,060.00	Alternative located within the current Park boundary.
B	2.0	\$1,833,160.00	Alternative located within the current Park boundary. Includes the cost of asphalt paving of an existing dirt Park road from Old 41 Highway to Activity Field 2.
C	0.9	\$705,672.00	Alternative located within the current Park boundary.
D	3.0	\$2,352,240.00	Alternative located outside the current Park boundary.

6. Environmental Consequences and Impact Analysis

6.1 Introduction

This section describes the environmental consequences associated with the trail and parking lot alternatives. It is organized by impact topic. Each alternative is analyzed under each impact topic. This format allows a standardized comparison of alternatives.

This analysis is based on review of existing literature and Park studies, information provided by experts within the Park, professional judgments and staff insights, the Georgia State Historic Preservation Office (SHPO), and public input.

6.2 Definitions

The analysis considers the context, intensity, duration, and indirect and cumulative impacts of each topic on the alternatives. Impairment of the Park resources and values of each topic is also addressed. The following definitions were used in the analysis.

6.2.1 Context

Context is the setting within which an impact is analyzed, such as the locality, region, affected interests, or society as a whole. This EA evaluates the intensity of impacts within a local context (i.e. the project area within the Park), and a regional context consisting of a broader area outside of the Park that includes Cobb County and the Metropolitan Atlanta area.

6.2.2 Impact Intensity

The intensity or severity of each impact topic is analyzed based on varying degrees including negligible, minor, moderate, and major. These intensity levels are specific for each impact topic and are defined in Table 3.

Table 3
Intensity Level Definitions

Impact Topic	Negligible	Minor	Moderate	Major
Air Quality	There would be a net decrease in emissions from current levels.	Emissions would be zero to five tons per year.	Emissions would be greater than five tons per year and less than conformity de minimis levels.	Emissions would be greater than or equal to conformity de minimis levels.
Archaeological Resources and Historic Structures	Impacts are barely perceptible and not measurable.	The impact affects an archaeological site with limited or modest data recovery potential or temporarily non-adversely affects registered or eligible resources or structures, and the effects are localized to the project area.	The impact affects an archaeological site with high data recovery potential, permanently but non-adversely affects registered or eligible resources or structures, and the effects are localized to the project area.	The impact affects an archaeological site with an exceptional data recovery potential, permanently affects registered or eligible resources or structures, and the effects affect the entire Park and surrounding area in a way that alters the purpose for which the Park was created.
Geology and Topography	Impacts are barely perceptible and not measurable.	Impacts temporarily alter the geology or topography, and the effects are localized to the project area.	Impacts permanently alter the geology or topography to the point where changes are perceptible within the project area.	Impacts permanently alter the geology or topography to the point where changes are perceptible throughout the entire Park and the surrounding area in a way that alters the function of the Park.
Park Operations	Impacts are barely perceptible and not measurable.	Impacts temporarily require reallocation of Park resources to the project area.	Impacts permanently require reallocation of Park resources to the project area.	The impact permanently affects all Park operations, requiring changes in staffing and funding.

Impact Topic	Negligible	Minor	Moderate	Major
Scenic and Aesthetic Value and Concerns	Impacts are barely perceptible and not measurable.	Impacts temporarily affect the aesthetics, though these effects are localized to the project area.	Impacts permanently affect the aesthetics of the project area.	Impacts permanently affect the aesthetics throughout the Park and the surrounding area.
Soils	Impacts are barely perceptible and not measurable.	Impacts are temporary and localized to the project area.	Impacts are permanent and limited to the project area.	Impacts are permanent and represent a measurable loss of the resource to the point where topography is visibly altered throughout the Park and the surrounding area.
Transportation	Impacts are barely perceptible and not measurable.	Impacts are temporary and affect transportation in the project area.	Impacts are permanent but limited to the project area.	Impacts are permanent and affect the transportation infrastructure in the entire Park and the surrounding area.
Vegetation	Impacts are barely perceptible and not measurable.	Impacts are temporary and localized to the project area.	Impacts are permanent, limited to the project area, and do not alter visitor experience to the Park as a whole.	Impacts are permanent and affect the Park and surrounding area enough to alter visitor experience to the Park.
Visitor Safety	Impacts are barely perceptible and not measurable.	Impacts are temporary and affect visitor safety in the project area.	Impacts are permanent and limited to the project area, but do not alter visitor safety in the Park as a whole.	Impacts are permanent and affect visitor safety throughout the Park and the surrounding area.
Visitor Use, Understanding, and Appreciation	Impacts are barely perceptible and not measurable.	Impacts temporarily impact visitor use of the project area.	Impacts permanently affect visitor use of the project area.	Impacts permanently affect visitor use, understanding, and appreciation of the Park as a whole.
Water Resources (Water Quality and Streams)	Impacts are barely perceptible and not measurable.	Impacts temporarily impact water resources within the project area.	Impacts permanently impact water resources within the project area and may require permitting by a regulatory agency and possibly mitigation.	Impacts permanently affect water resources throughout the Park and the surrounding area, requiring permitting and possibly mitigation.
Wildlife	Impacts are barely perceptible and not measurable.	Impacts temporarily affect wildlife within the project area, though populations would not be permanently reduced.	Impacts permanently affect wildlife within the project area, though populations would not be permanently reduced.	Impacts permanently affect wildlife throughout the Park and the surrounding area, resulting in population reductions due to habitat loss.

6.2.3 Duration

For the purposes of this EA, the duration of impacts are classified into one of two time frames:

Short Term/Temporary – Impacts occur only during construction, or last less than one year,

Long Term/Permanent – Impacts that will last longer than one year.

6.2.4 Indirect and Cumulative Impacts

Unlike direct impacts which are an effect caused by an action and occur at the same place and time, an indirect effect is caused by an action later in time or farther removed in distance, but is still reasonably foreseeable. Cumulative impacts are defined as the impact on the environment which results from the incremental impact of the action when added to past, present, and reasonably foreseeable future actions.

Cumulative impacts from each alternative are included in Table 4 located at the end of this section.

6.2.5 Impairment of the Park Resources or Values

In addition to determining the environmental consequences of the preferred and other alternatives, the 2001 NPS Management Policies and DO-12 require analysis of potential effects to determine if actions would impair the Park's resources.

Although Congress has given NPS management discretion to allow certain impacts within parks, that discretion is limited by statutory requirement that the NPS must leave park resources and values unimpaired, unless a particular law directly

and specifically provides otherwise. The prohibited impairment is an impact that, in the professional judgment of the responsible NPS manager, would harm the integrity of park resources or values, including opportunities that otherwise would be present for the enjoyment of those resources or values. Although any impact to a park resource may constitute impairment, it is more likely to constitute impairment to a resource whose conservation is:
















1. Necessary to fulfill specific purposes 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 Master Plan or General Management Plan or other relevant NPS planning documents.













An impairment determination is made for each impact topic within the conclusion section of the impact analysis.

6.3 Impact Analysis

The impact analysis section contains a detailed assessment of trail and parking lot alternatives under each impact topic selected for further analysis. Table 4 contains a summary of impacts for trail alternatives included in the EA. Table 5 contains a summary of impacts for parking lot alternatives included in the EA.

Table 4
Summary of Impacts – Trail Alternatives

No.	Impact Topic	No Action Alternative	Trail Alternative 4- Environmentally Preferred Alternative / NPS Preferred Alternative	Trail Alternative 5
1	Air Quality	Adverse, minor , impacts would occur. Traffic volumes will increase in the future from growth in the area and popularity of the Park. With limited alternatives to driving, increased vehicle trips and idle times would occur. 	Impacts to air quality would be adverse and minor . Even with an alternative to driving available via the trail, vehicle trips to the Park would increase because of population growth and popularity of the Park. However, providing an alternative to driving with the trail would decrease some vehicle trips, and certainly provide improvements to air quality when compared to the No Action Alternative. 	Impacts to air quality would be adverse and minor . Even with an alternative to driving available via the trail, vehicle trips to the Park would increase because of population growth and popularity of the Park. However, providing an alternative to driving with the trail would decrease some vehicle trips, and certainly provide improvements to air quality when compared to the No Action Alternative 
2	Archaeological Resources and Historic Structures	There would be no impacts to cultural resources because the trail would not be constructed. 	Impacts to archaeological resources and historic structures would be negligible . The proposed trail alignment would be primarily within areas already disturbed and graded for parking. 	Adverse impacts from the trail would be adverse and major . Two earthworks perpendicular to Old 41 Highway are located northeast of the road. Construction of the trail on this side of Old 41 Highway would permanently degrade these earthworks. 
3	Geology and Topography	There would be no impacts to geology and topography because the trail would not be constructed. 	Adverse impacts from this trail alternative would be moderate . The area would require permanent minor grading for construction and drainage. 	Adverse impacts would be moderate . The area would require permanent minor grading for construction and drainage. Construction of the trail west of Ridenour Road would require excavating into the ground shoulder, contributing to erosion. 
4	Park Operations	There would be no impacts to Park operations. No additional recreational opportunities from trail construction would be available; however, there would be no adjustments to staffing, funding, or operations needed to maintain a trail 	Impacts would be moderate and both beneficial and adverse. Cobb County would maintain the trail, alleviating maintenance requirements for Park staff. However, Park staff would patrol the trail, adding responsibilities for the park staff. 	Impacts would be moderate and both beneficial and adverse. Cobb County would maintain the trail, alleviating maintenance requirements for Park staff. However, Park staff would patrol the trail, adding responsibilities for the park staff. 
5	Scenic and Aesthetic Value and Concerns	There would be no impacts to scenic and aesthetic concerns because construction of the trail and parking lots would not occur to alter visual aspects within the Park. 	Beneficial impacts to scenic and aesthetic values would be moderate . The trail would be constructed in areas already disturbed and used for parking. Because of the trail location adjacent to the existing road, it would not detract from aesthetic and scenic values of the Park. 	Beneficial impacts to scenic and aesthetic values would be moderate . The trail would be constructed in areas already disturbed and used for parking. Because of the trail location adjacent to the existing road, it would not detract from aesthetic and scenic values of the Park. 

No.	Impact Topic	No Action Alternative	Trail Alternative 4- Environmentally Preferred Alternative / NPS Preferred Alternative	Trail Alternative 5
6	Soils	There would be no impacts to soils because the trail would not be constructed. 	Adverse impacts to soils would be moderate . Construction of the trail within areas that are already disturbed would minimize activities that affect soils. Minimal grading would be required for trail construction and drainage swales. Erosion control procedures would be used during construction. 	Adverse impacts to soils would be moderate . Construction of the trail within areas that are already disturbed would minimize activities that affect soils. Minimal grading would be required for trail construction and drainage swales. In areas west of Ridenour Road, excavation into the shoulder to construct the trail would increase erosion. Erosion control procedures would be used during construction. 
7	Transportation	Adverse impacts to transportation would be moderate . There would be no pedestrian alternative to driving to the Park. 	Beneficial impacts to transportation from this alternative would be moderate . Trail construction would provide an alternative to driving to the Park. When this trail is eventually integrated with the Cobb County trail system, it will provide an alternative to driving to the Park to a greater area in Cobb County. 	Beneficial impacts to transportation from this alternative would be moderate . Trail construction would provide an alternative to driving to the Park. When this trail is eventually integrated with the Cobb County trail system, it will provide an alternative to driving to the Park to a greater area in Cobb County. 
8	Vegetation	There would be no impact to vegetation in the Park. 	Adverse impacts to vegetation would be moderate . The trail would be constructed in the dirt shoulder of the road. Impacts would be to vegetation at the edge of woods adjacent to the parking areas. Tree removal would be avoided where possible. No hardwood trees greater than 6 inches diameter at breast height (dbh) would be removed. 	Adverse impacts to vegetation would be moderate . The trail would be constructed in the dirt shoulder of the road. Impacts would be to vegetation at the edge of woods adjacent to the parking areas. Tree removal would be avoided where possible. No hardwood trees greater than 6 inches dbh would be removed. 
9	Visitor Safety	Adverse impacts to visitor safety would be moderate . There would be no safer alternative for visitors to walking along the road shoulder or the edge of Old 41 Highway. 	Beneficial impacts to visitor safety would be moderate . Trail construction would eliminate roadside parking on Old 41 Highway and provide a safer alternative to walking along Old 41 Highway. This alternative would be constructed on the same side of Old 41 Highway as the environmentally preferred parking lot alternative. 	Beneficial impacts to visitor safety would be moderate . Trail construction would eliminate roadside parking on Old 41 Highway and provide a safer alternative to walking along Old 41 Highway. This alternative would be constructed on the opposite side of Old 41 Highway, requiring construction of facilities to safely cross the road to access the trail. 


























































No.	Impact Topic	No Action Alternative	Trail Alternative 4- Environmentally Preferred Alternative / NPS Preferred Alternative	Trail Alternative 5
10	Visitor Use, Understanding, and Appreciation	Adverse impacts to visitor understanding and appreciation would be moderate . Existing facilities would not be affected, but there would be no opportunity to enhance visitor experience in the Park. 	Beneficial impacts to visitor use, understanding, and appreciation of the Park's purpose would be moderate . The trail would provide access to areas not frequented by visitors and add to the trail network within the Park. Trail construction provides the opportunity for additional interpretive information in the Park. 	Beneficial impacts to visitor use, understanding, and appreciation of the Park's purpose would be moderate . The trail would provide access to areas not frequented by visitors and add to the trail network within the Park. Trail construction provides the opportunity for additional interpretive information in the Park. 
11	Water Resources (Water Quality and Streams)	There would be no impact to streams and water quality from construction. 	Adverse impacts to water resources would be negligible . There would be no direct impact to streams. Some sedimentation may occur during construction. Sediment and erosion control procedures would be implemented to reduce sedimentation. 	Adverse impacts to water resources would be negligible . There would be no direct impact to streams. Some sedimentation may occur during construction. Sediment and erosion control procedures would be implemented to reduce sedimentation. 
12	Wildlife	There would be no impact to wildlife or habitat from construction of the trail. 	Impacts to wildlife would be negligible . The trail would be constructed in a disturbed area that does not provide major habitat for wildlife within the Park. The trail would not introduce a new element or human activity that would adversely affect wildlife. 	Impacts to wildlife would be negligible . The trail would be constructed in a disturbed area that does not provide major habitat for wildlife within the Park. The trail would not introduce a new element or human activity that would adversely affect wildlife. 

Table 5
Summary of Impacts – Parking Lot Alternatives

No.	Impact Topic	No Action	Parking Lot Alternative A (Across from HQ/VC)	Parking Lot Alternative B (Activity Field 2)	Parking Lot Alternative D (CSX) Trail Alternative 4- Environmentally Preferred Alternative / NPS Preferred Alternative
1	Air Quality	Adverse, minor , impacts would occur. Traffic volumes will increase in the future from growth in the area and popularity of the Park. With limited alternatives to parking, increased vehicle trips and idle times would occur as visitors seek parking alternatives in the Park. 	Impacts to air quality would be adverse and minor . Even with additional parking capacity, attendance to the Park is anticipated to increase as population grows and popularity of the Park increases. However, providing additional parking would reduce vehicle trips through the Park by visitors. 	Impacts to air quality would be adverse and minor . Even with additional parking capacity, attendance to the Park is anticipated to increase as population grows and popularity of the Park increases. However, providing additional parking would reduce vehicle trips through the Park by visitors. 	Impacts to air quality would be adverse and minor . Even with additional parking capacity, attendance to the Park is anticipated to increase as population grows and popularity of the Park increases. However, providing additional parking would reduce vehicle trips through the Park by visitors. 
2	Archaeological Resources and Historic Structures	There would be no impact to archaeological resources and historic structures. 	Adverse impacts to archaeological resources and historic structures would be minor . The area has been previously disturbed and consists of a grassed field. No artifacts were identified in this area. Construction activities would not impact unique or unusual archeological resources or historic structures. 	Adverse impacts to archaeological resources and historic structures would be minor . The area has been previously disturbed and consists of a grassed field. No artifacts were identified in this area. Construction activities would not impact unique or unusual archeological resources or historic structures. Modern metal debris interfered with survey activities. Monitoring is recommended during construction activities. 	Adverse impacts to archaeological resources and historic structures would be minor . Artifacts were recovered from this site, but were not considered unique or unusual archaeological resources with high data recovery potential. Dense vegetation limited survey activities. Monitoring is recommended during construction activities. 
3	Geology and Topography	There would be no impacts to geology and topography because the parking lot would not be constructed. 	Adverse impacts to geology and topography would be moderate . Grading would be required to construct the parking lot, but construction activities would not be severe. There are no geologic formations or outcrops at this site. 	Adverse impacts to geology and topography would be moderate . Grading would be required to construct the parking lot, but construction activities would not be severe. There are no geologic formations or outcrops at this site. The dirt Park road from Old 41 Highway to the parking lot would be paved. 	Adverse impacts to geology and topography would be moderate . Grading would be required to construct the parking lot, but construction activities would not be severe. There are no geologic formations or outcrops at this site. 

No.	Impact Topic	No Action	Parking Lot Alternative A (Across from HQ/VC)	Parking Lot Alternative B (Activity Field 2)	Parking Lot Alternative D (CSX) Trail Alternative 4- Environmentally Preferred Alternative / NPS Preferred Alternative
4	Park Operations	There would be no impacts to Park operations. There would be no additional facilities to maintain by Park staff. However, parking would continue to be a concern for visitors because of the limited availability of parking. 	Adverse impacts to Park operations would be moderate . The parking lot would be constructed in an area that is not currently used for other Park functions, creating additional facilities for Park staff to maintain. 	Adverse impacts to Park operations would be moderate . The parking lot would be constructed within a portion of a recreational field designated for visitor use, modifying a facility that would require additional maintenance by Park staff. 	Beneficial impacts to Park operations would be moderate . The parking lot would be constructed in an area that is currently not within the Park boundary. Initial maintenance responsibility would be from Cobb County, not Park staff. 
5	Scenic and Aesthetic Value and Concerns	There would be no impact to scenic and aesthetic values. 	Adverse impacts to scenic and aesthetic values would be moderate . This site is located within the Park boundary, adjacent to the Visitors Center and administration offices. The site is not used for visitor activities. The site does contribute to the scenic, natural aspects of the Park. Its location provides a natural, scenic buffer between administrative offices and the Visitors Center. 	Adverse impacts to scenic and aesthetic values would be moderate . This site is located within a recreational field within the Park boundary. Converting a portion of the field to a paved parking lot would permanently alter the aesthetic values of the field, and would convert a natural area to a man-made area. 	There would be no impact to scenic and aesthetic values within the Park. The site is not within the Park boundary and consists largely of invasive plant species such as kudzu. This site is not considered an area of unique scenic or aesthetic value. 
6	Soils	There would be no impact to soils because the parking lot would not be constructed. 	Adverse impacts to soils would be moderate . Grading would be required to construct the parking lot, impacting soils during construction. On-site soils would be used during construction, minimizing off-site disposal. 	Adverse impacts to soils would be moderate . Grading would be required to construct the parking lot, impacting soils during construction. On-site soils would be used during construction, minimizing off-site disposal. 	Adverse impacts to soils would be moderate . Grading would be required to construct the parking lot, impacting soils during construction. On-site soils would be used during construction, minimizing off-site disposal. 

No.	Impact Topic	No Action	Parking Lot Alternative A (Across from HQ/VC)	Parking Lot Alternative B (Activity Field 2)	Parking Lot Alternative D (CSX) Trail Alternative 4-Environmentally Preferred Alternative / NPS Preferred Alternative
7	Transportation	Adverse impacts to transportation network would be moderate . Competition for the limited parking in this area of the Park would continue without additional parking capacity.	Adverse impacts to transportation would be moderate . The parking lot would be located adjacent to the Visitor Center and on Stilesboro Road, which would add all traffic volume for parking to one road used to access all parking areas.	Beneficial impacts to transportation would be moderate . Access to the parking lot would be from an existing dirt Park road from Old 41 Highway, away from the busy intersection of Old 41 Highway and Stilesboro Road. This road would be paved and widened to accommodate vehicles.	Beneficial impacts to transportation would be moderate . Additional parking capacity would alleviate congestion, and trips through the Park to locate parking. This site is located away from the busy intersection of Old 41 Highway and Stilesboro Road and the existing Visitor Center parking lot which would aid in reducing congestion in these busy areas.
					
8	Vegetation	There would be no impact to vegetation because the parking lot would not be constructed.	Adverse impacts to vegetation would be moderate . The field consists of a mowed grass field. The vegetation would be removed to construct the parking lot, converting a natural area within the Park to a man-made area.	Adverse impacts to vegetation would be moderate . The field consists of a mowed grass field. The vegetation would be removed to construct the parking lot, converting a natural area within the Park to a man-made area. Alterations to the existing dirt Park Road would involve some grading, clearing of vegetation and trees adjacent to the road to create a roadway of appropriate width, and paving.	Adverse impacts to vegetation would be moderate . The area would be cleared of vegetation to construct the parking lot. However most of the vegetation consists of invasive plant species such as kudzu.
					
9	Visitor Safety	Adverse impacts to visitor safety would be moderate . Unsafe roadside parking would not be eliminated.	Adverse impacts to visitor safety would be moderate . This alternative would contribute to a congested area, but it would provide a safer alternative to parking and walking along the shoulder of Old 41 Highway. Access to the proposed trail would be along existing sidewalks.	Beneficial impacts to visitor safety would be moderate . Access to the proposed trail and park facilities would be along an existing dirt road to Old 41 Highway. This alternative would provide an alternative to parking and walking along the shoulder of Old 41 Highway. The dirt Park road would be widened to accommodate pedestrians walking to the trail and vehicles accessing the parking lot.	Beneficial impacts to visitor safety would be moderate . This alternative would be adjacent to the preferred trail alternative, avoiding having to cross Old 41 Highway to the trail. The connection from this parking area to the trail would provide a safer alternative to parking and walking along the shoulder of Old 41 Highway. It is located away from the heavily traveled intersection of Old 41 Highway and Stilesboro Road.
					

No.	Impact Topic	No Action	Parking Lot Alternative A (Across from HQ/VC)	Parking Lot Alternative B (Activity Field 2)	Parking Lot Alternative D (CSX) Trail Alternative 4- Environmentally Preferred Alternative / NPS Preferred Alternative
10	Visitor Use, Understanding, and Appreciation	Adverse impacts to visitor use, understanding, and appreciation would be moderate . Additional convenient parking would continue to be an issue for visitors, potentially limiting visitor use of Park facilities. 	Adverse impacts to visitor use, understanding, and appreciation would be moderate . This area is not available for visitor use, but does represent a natural area of the Park that would be permanently altered. This parking lot would provide convenient access to Park facilities. 	Adverse impacts to visitor use, understanding, and appreciation would be moderate . This area is available for visitor use, and represents a natural area of the Park that would be permanently altered. This parking lot would provide convenient access to Park facilities. 	Beneficial impacts to visitor use, understanding, and appreciation would be moderate . This alternative would convert an area not currently within the Park for visitor use, and would not convert a natural area of the Park to a man-made area. This location would provide convenient access to the proposed trail and other Park facilities. 
11	Water Resources (Water Quality and Streams)	There would be no impact to water quality or streams in the Park. 	Adverse impacts to water quality and streams would be negligible . There would be no direct impact to streams within the Park. No permits or mitigation would be required. Minor sedimentation may occur, but sediment and erosion control measures would be implemented. 	Adverse impacts to water quality and streams would be negligible . There would be no direct impact to streams within the Park. No permits or mitigation would be required. Minor sedimentation may occur, but sediment and erosion control measures would be implemented. 	Adverse impacts to water quality and streams would be moderate . There is one ephemeral stream bisecting the site that would be filled to construct the parking lot. This action would not require permitting or mitigation. Drainage features would be a part of the parking lot design to accommodate storm water functions the ephemeral stream provides. 
12	Wildlife	There would be no impacts to wildlife if the parking lot were not constructed. 	Adverse impacts to wildlife would be moderate . The grassed field represents potential foraging habitat for some species. However, there are adjacent areas that would provide foraging habitat. Any alterations in wildlife behavior resulting from the parking lot would not be considered severe. 	Adverse impacts to wildlife would be moderate . The grassed field represents potential foraging habitat for some species. However, there are adjacent areas that would provide foraging habitat. Any alterations in wildlife behavior resulting from the parking lot would not be considered severe. 	Adverse impacts to wildlife would be moderate . Construction of the parking lot may displace some wildlife species. However the larger, higher quality habitats within the Park would provide adequate replacement habitat. 

6.3.1 Air Quality

Affected Environment

The 1990 Clean Air Act amendments and guidelines, issued by the Environmental Protection Agency (US EPA), set forth guidelines to be followed for attainment of the National Ambient Air Quality Standards (NAAQS). Nonattainment areas currently do not meet air quality standards or are maintenance areas that have previously violated air quality standards but currently meet them and have an approved maintenance plan. On January 5, 2005, the US EPA designated a 20+ county metro Atlanta nonattainment area for fine particulate matter, called PM_{2.5}. PM_{2.5} is one of the components of smog. The Park is located within this nonattainment area.

In addition to PM_{2.5} Mobile Source Air Toxics (MSAT) are a subset of the 188 air toxics defined by the Clean Air Act. The MSATs are compounds emitted from highway vehicles and non-road equipment. Some toxic compounds are present in fuel and are emitted to the air when the fuel evaporates or passes through the engine unburned. Other toxics are emitted from the incomplete combustion of fuels or as secondary combustion products. Metal air toxics also result from engine wear or from impurities in oil or gasoline.

No Action Alternative

Adverse impacts to air quality from not implementing the project would be minor. There would be no alternative to driving to the Park from surrounding areas, increasing vehicle trips and idling times and therefore emissions. Any increase in emissions resulting from additional vehicle travel is likely to affect air quality in and adjacent to the Park.

Trail Alternative 4 – Environmentally Preferred Alternative / NPS Preferred Alternative

Regardless of alternatives to driving there would be some increase in emissions and air quality due to rapid population growth and increasing popularity of the Park. Therefore minor adverse impacts would occur. However, any alternatives that reduce trips to the Park would be beneficial when compared to not having the alternatives (i.e. the No Action Alternative). In the long term, once the trail is connected to other area trails, visitors from a larger area would have Park access, further reducing trips. Any decrease in emissions resulting from less vehicle travel would have a beneficial effect on air quality.

Trail Alternative 5

Regardless of alternatives to driving there would be some increase in emissions and air quality due to rapid population growth and increasing popularity of the Park. Therefore minor adverse impacts would occur. However, any alternatives that reduce trips to the Park would be beneficial when compared to not having the alternatives (i.e. the No Action Alternative). In the long term, once the trail is connected to other area trails, visitors from a larger area would have Park access, further reducing trips. Any decrease in emissions resulting from less vehicle travel would have a beneficial effect on air quality.

Parking Lot Alternative A (Across from HQ/VC)

Impacts to air quality would be minor. Driving trips through the Park are likely to increase in the future due to population growth and an increase in Park popularity. However, providing additional parking capacity would reduce trip times, and therefore emissions, through the Park. Any decrease in emissions resulting from less vehicle travel would have a beneficial effect on air quality.

Parking Lot Alternative B (Activity Field 2)

Impacts to air quality would be minor. Driving trips through the Park are likely to increase in the future due to population growth and an increase in Park popularity. However, providing additional parking capacity would reduce trip times, and

therefore emissions, through the Park. Any decrease in emissions resulting from less vehicle travel would have a beneficial effect on air quality.

Parking Lot Alternative D (CSX) - Environmentally Preferred Alternative / NPS Preferred Alternative

Impacts to air quality would be minor. Driving trips through the Park are likely to increase in the future due to population growth and an increase in Park popularity. However, providing additional parking capacity would reduce trip times, and therefore emissions, through the Park. Any decrease in emissions resulting from less vehicle travel would have a beneficial effect on air quality.

Conclusion

All of the proposed trail and parking lot alternatives would result in minor benefits to air quality. All the build alternatives would result in fewer vehicle trips, reducing emissions. Alternative A is the environmentally preferred trail alternative, and Parking Lot Alternative D (CSX) is the environmentally preferred parking lot alternative. However, because all alternatives have the same impact intensity, air quality is not a factor in determining the environmentally preferred alternative or the National Park Service preferred alternative.

The implementation of any of the alternatives would not impair air quality resources or values that are:

- 1) Necessary to fulfill specific purposes identified in the enabling legislation of the Park,
- 2) Key to the natural or cultural integrity of the Park or opportunities for enjoyment of the Park, and
- 3) Identified as a goal in the Park's General Management Plan or other NPS planning documents.

6.3.2 *Archaeological Resources and Historic Structures*

Affected Environment

Section 106 procedures in compliance with the National Historic Preservation Act (NHPA) of 1966 require federal agencies to determine the effect of their actions on historic properties and to provide state historic preservation offices and other interested parties the opportunity to review and comment on these actions as they affect cultural resources.

The Park is listed in the National Register of Historic Places (1976 nomination). The Park consists of approximately 2,884 acres, and is approximately seven miles long, north to south, at its longest point, and two miles, east to west, at its widest point. The Park commemorates a Civil War battle site, and is the largest site in the Atlanta relating to the Atlanta Campaign. Additionally, the Park's natural areas are an example of the diminishing rural landscape of Cobb County.

Cultural features of the Park include Civil War-era earthworks, historic structures, prehistoric rock pile mounds, monuments and markers, remnants of a Civilian Conservation Corps camp, and the battlefield landscape.

No Action Alternative

There would be no impacts to the Park's cultural environment including historic structures and archaeological resources because there would be no construction activities and introduction of new features (i.e. the trail and parking lot) to the Park.

Trail Alternative 4 - Environmentally Preferred Alternative / NPS Preferred Alternative

Impacts to historic structures and archaeological resources would be negligible. This alternative would be constructed within the previously disturbed road shoulder, currently used for roadside parking. Surveys of this area did not reveal historic structures or archaeological resources along this alignment.

Trail Alternative 5

Adverse impacts to historic structures and archaeological resources would be major. The trail east of Ridenour Road/Greens Chapel would be constructed within the previously disturbed road shoulder, currently used primarily for roadside parking. Surveys for the alternative in this area did not reveal historic structures or archaeological resources. However, west of Ridenour Road/Greens Chapel two earthwork structures associated with the battle for Kennesaw Mountain were identified adjacent to the road shoulder. Any construction along the road shoulder in this area to construct the trail would permanently degrade these earthworks.

Parking Lot Alternative A (Across from HQ/VC)

The area has been cleared of trees and undergrowth, graded and currently consists of a grassed field. No contributing elements to the Park were identified from the history survey, and only isolated artifacts were recovered from archaeology surveys. Any data potential was met with the survey activities. While minor grading may be required to construct the parking lot, adverse impacts to historic structures or archaeological resources would be minor.

Parking Lot Alternative B (Activity Field 2)

The area has been cleared of trees and undergrowth, graded and currently consists of a grassed field. No contributing elements to the Park were identified from the history survey, and only isolated artifacts were recovered from archaeology surveys. Any data potential was met with the survey activities. Modern metallic objects such as soft drink pull tabs were abundant throughout the activity field and dirt Park road, affecting survey activities conducted with metal detectors. Due to this restraint on the survey, monitoring and additional metal detection are recommended during construction. Although minor grading may be required to construct the parking lot, adverse impacts to historic structures or archaeological resources would be minor.

Parking Lot Alternative D (CSX) - Environmentally Preferred Alternative / NPS Preferred Alternative

Adverse impacts to historic structures and archaeological resources would be minor. Field surveys did not identify historic structures or unique or unusual archaeological resources that would make this area eligible for listing in the National Register. Aerial photographs and United States Geologic Service (USGS) topographic maps available to 1938 indicate the presence of structure(s) in the project area. Due to dense vegetation and ground cover some areas could not be surveyed. Artifacts recovered included prehistoric lithic artifacts, military artifacts associated with the battle for Kennesaw Mountain, remnants of a chimney structure, bricks, twentieth century domestic artifacts, and modern debris.

Conclusion

Trail Alternative 4 is the environmentally preferred alternative. There would be negligible impacts to historic structures or archaeological resources of the Park. Trail Alternative 5 would adversely impact two earthwork structures that currently terminate at the graded road shoulder.

No historic structures or unique or unusual archaeological resources were identified within any of the three parking lot alternatives. Because Parking Lot Alternatives A (Across for HQ/VC) and B (Activity Field 2) have been previously graded and are relatively flat, construction activities would result in minor adverse impacts to cultural resources. Due to site conditions that limited a complete survey of Parking Lot Alternative D (CSX), adverse impacts to historic resources and archaeological resources would be minor. Parking Lot Alternative D (CSX) is the environmentally preferred alternative. Parking Lot Alternative D (CSX) consists of an area that is currently outside the boundaries of the Park. Parking Lot Alternatives A (Across for HQ/VC) and B (Activity Field 2) consist of areas within the Park. The NPS is mandated to protect NPS-designated property unimpaired for the enjoyment of future generations; therefore, development of Parking Lot Alternative D (CSX) is preferred because it would protect the NPS-designated areas within Parking Lot Alternatives A (Across from HQ/VC) and B (Activity Field 2).

The implementation of any of the alternatives would not impair archaeological resources and historic structures or values that are:

- 1) Necessary to fulfill specific purposes identified in the enabling legislation of the Park,
- 2) Key to the natural or cultural integrity of the Park or opportunities for enjoyment of the Park, and
- 3) Identified as a goal in the Park's General Management Plan or other NPS planning documents.

6.3.3 *Geology and Topography*

Affected Environment

The Park is located in the geographic area known as the Blue Ridge and Piedmont. Crystalline formations underlying the Park consist of hornblende gneiss/amphibolite and amphibolites/mica schist/ biotitic gneiss. Kennesaw Mountain is the highest of a short string of granite hills lying northwest of Atlanta.

No Action Alternative

There would be no impact to geologic or topographic formations within the Park because construction of a trail and parking lot would not occur.

Trail Alternative 4- Environmentally Preferred Alternative / NPS Preferred Alternative

Adverse impacts would be moderate. Grading that would affect the geology within the Park would not occur, as the trail would be constructed within an area previously disturbed and used for roadside parking. Some grading would be required to construct the trail and develop drainage swales, but major changes in land form or topography would not occur.

Trail Alternative 5

Adverse impacts would be moderate. Grading that would affect the geology within the Park would not occur, as the trail would be constructed within an area previously disturbed and used for roadside parking, or that has been graded for road shoulder. Some grading would be required to construct the trail and develop drainage swales. However construction of the trail along this alignment west of Ridenour Road/Greens Chapel would require excavating the shoulder of the embankment, permanently altering topography in this area.

Parking Lot Alternative A (Across from HQ/VC)

Adverse impacts to the site's geology and topography would be moderate. Grading of the site for construction would permanently alter the topography at the site. Construction activities would not affect the geology on this site.

Parking Lot Alternative B (Activity Field 2)

Adverse impacts to the site's geology and topography would be moderate. The site is relatively level, therefore minimal grading would be required for construction. The dirt Park road would require grading and paving to accommodate vehicular and pedestrian traffic. Construction activities would not affect the geology on this site.

Parking Lot Alternative D (CSX) - Environmentally Preferred Alternative / NPS Preferred Alternative

Grading would be required to level the area for construction and to provide adequate drainage. There are no geologic formations, and construction activities would not affect the geology on this site. Adverse impacts to geology and topography would be moderate.

Conclusion

Trail Alternative 4 is the environmentally preferred alternative. This alternative would have the least impact to the Park's geology and topography, as the trail would be constructed in an area that has been previously disturbed. Trail Alternative 5 would permanently impact the embankment of the road shoulder. Grading would be required for all parking lot alternatives.

Parking Lot Alternatives A (Across for HQ/VC) and B (Activity Field 2) would permanently alter natural areas within the existing Park that are currently used by visitors and Park staff. Parking Lot Alternative D (CSX) is the environmentally preferred alternative because the impacts would occur to an unused area that currently exists outside the Park boundary.

The implementation of any of the alternatives would not impair geology or topography resources or values that are:

- 1) Necessary to fulfill specific purposes identified in the enabling legislation of the Park,
- 2) Key to the natural or cultural integrity of the Park or opportunities for enjoyment of the Park, and
- 3) Identified as a goal in the Park's General Management Plan or other NPS planning documents.

6.3.4 Park Operations

Affected Environment

The Park maintains approximately 16 miles of hiking trails, with horseback riding allowed on some trails. There are two recreational fields, and a Visitors Center that contains restrooms, gift shop, museum, interpretive displays, and a theatre. Periodic living history displays with Civil War reenactors, guided tours by Park staff, and special events are also provided for visitors. The Mountain Road leads from the Visitors Center to the top of Kennesaw Mountain, where there are interpretive displays and scenic overlooks of the Atlanta area.

The Park contains over 2,800 acres and is seven miles long and two miles wide at its widest points. Park Rangers, along with local law enforcement departments, patrol facilities and roads that traverse the Park. The Visitor Center is the only Park facility that is staffed full time by Park personnel.

No Action Alternative

There would be no impacts to Park operations from the No Action Alternative. There would be no additional requirements of Park personnel or adjustments to operations if the trail and parking lot were not constructed. There would be no additional facilities to monitor, inspect, or maintain requiring changes to existing operations.

Trail Alternative 4- Environmentally Preferred Alternative / NPS Preferred Alternative

Impacts would be moderate and both beneficial and adverse. Maintenance and repair of the trail would be the responsibility of Cobb County. Based on its location adjacent to Old 41 Highway, any monitoring of the trail by Park personnel for visitor safety could be accomplished as a part of regularly scheduled patrols or inspections and would require only minimal adjustments for Park staff.

The addition of a new trail would add approximately 3,940 feet (0.75 mile) to the 16 miles of trails currently within the Park, and expand on this system when considered in the context of connectivity to the larger Cobb County Trail Plan.

Trail Alternative 5

Impacts would be moderate and both beneficial and adverse. Maintenance and repair of the trail would be the responsibility of Cobb County. Based on its location adjacent to Old 41 Highway, any monitoring of the trail by Park personnel for visitor safety could be accomplished as a part of regularly scheduled patrols or inspections and would require only minimal adjustments for Park staff.

The addition of a new trail would add approximately 4,040 feet (0.77 mile) to the 16 miles of trails currently within the Park, and expand on this system when considered in the context of connectivity to the larger Cobb County Trail Plan.

Parking Lot Alternative A

Adverse impacts to Park operations from this alternative would be moderate. Initial maintenance responsibility for the first three to five years after construction would be by Cobb County. This would allow any repairs, landscape

maintenance, and landscape stabilization to occur without impacting Park staffing levels, operations, or budgets. After this initial period, maintenance responsibilities would be transferred to the Park, requiring some adjustment to operating schedules to maintain landscaping and inspect the facility.

Parking Lot Alternative B (Activity Field 2)

Adverse impacts to Park operations from this alternative would be moderate. Initial maintenance responsibility for the first three to five years after construction would be by Cobb County. This would allow any repairs, landscape maintenance, and landscape stabilization to occur without impacting Park staffing levels, operations, or budgets. After this initial period, maintenance responsibilities would be transferred to the Park, requiring some adjustment to operating schedules to maintain landscaping and inspect the facility. This alternative would permanently eliminate a portion of Activity Field 2.

Parking Lot Alternative D (CSX) - Environmentally Preferred Alternative / NPS Preferred Alternative

Impacts to Park operations from this alternative would be beneficial and moderate. Initial maintenance responsibility for the first three to five years after construction would be by Cobb County. This would allow any repairs, landscape maintenance, and landscape stabilization to occur without impacting Park staffing levels, operations, or budgets. After this initial period, maintenance responsibilities would be transferred to the Park, requiring some adjustment to operating schedules to maintain landscaping and inspect the facility. The parking lot would not affect an existing area of the Park.

Conclusion

The trail alternatives would result in moderate beneficial and adverse impacts. Trail maintenance would not be the responsibility of the Park. Monitoring of the trail alternatives for visitor safety could be accomplished as a part of regularly scheduled patrols or inspections and would require only minimal adjustments for Park staff. Trail Alternative A is the preferred trail alternative; however, because both trail alternatives have the same impact intensity, park operations are not a determining factor in determining the environmentally preferred alternative or the National Park Service preferred alternative.

Parking Lot Alternative D (CSX) is the environmentally preferred parking lot alternative. The parking lot alternatives would not initially affect Park staff or budgets. Responsibility for maintenance and repair would be by Cobb County. However, eventually maintenance would become the responsibility of the Park. Parking Lot Alternative D (CSX) would not affect an existing area of the Park.

The implementation of any of the alternatives would not impair Park operations, resources or values that are:

- 1) Necessary to fulfill specific purposes identified in the enabling legislation of the Park,
- 2) Key to the natural or cultural integrity of the Park or opportunities for enjoyment of the Park, and
- 3) Identified as a goal in the Park's General Management Plan or other NPS planning documents.

6.3.5 *Scenic and Aesthetic Value and Concerns*

Affected Environment

The majority of the 2,888 acres of the Park is undeveloped, and is one of the few remaining examples of rural Cobb County. Kennesaw Mountain is the highest point in northwest Atlanta, and provides pristine views of the Atlanta area from the top of the mountain. Because of its location near residential areas, the Park's trail system is heavily used year around. The Park represents one of the largest undisturbed green spaces in the Atlanta Metro area.

No Action Alternative

There would be no impacts to the scenic and aesthetic values of the Park because construction of new hard surface structures within the Park would not occur.

Trail Alternative 4 - Environmentally Preferred Alternative / NPS Preferred Alternative

Beneficial impacts from this alternative would be moderate. Although trail construction would introduce a man-made structure into the natural environment of the Park, the trail location would be adjacent to Old 41 Highway. The trail would be constructed within the previously disturbed gravel road shoulder used for parking. Because of the previously disturbed nature of the area, construction of the trail would not affect an area considered of high scenic or aesthetic value.

Trail Alternative 5

Beneficial impacts from this alternative would be moderate. Although trail construction would introduce a man-made structure into the natural environment of the Park, the trail location would be adjacent to Old 41 Highway. The trail would be constructed within the previously disturbed gravel road shoulder used for parking. Because of the previously disturbed nature of the area, construction of the trail would not affect an area considered of high scenic or aesthetic value.

Parking Lot Alternative A (Across from HQ/VC)

Adverse impacts to Parking Lot Alternative A (Across from HQ/VC) would be moderate. The area consists of a grassed field located adjacent to administrative offices and the Visitors Center. Although not used by Park visitors, its location and existing condition contribute to the scenic, natural aspects of the Park. Its location provides a natural, scenic buffer between administrative offices and the Visitors Center, and is considered of aesthetic value by Park staff. Deer and other wildlife are often observed in this area by staff. Construction of the parking lot would introduce a hard-scape, man-made structure to a natural area within the Park.

Parking Lot Alternative B (Activity Field 2)

Adverse impacts to Parking Lot Alternative B (Activity Field 2) would be moderate. The area consists of a large grassed field designated for recreational use for visitors. Existing conditions contribute to the scenic, natural aspects of the Park. Construction of the parking lot would introduce a hard-scape, man-made structure to a natural area within the Park, and permanently eliminate a portion of one of the few public use areas in the Park.

Parking Lot Alternative D (CSX) - Environmentally Preferred Alternative / NPS Preferred Alternative

There would be no impact to scenic and aesthetic value and concerns from Parking Lot Alternative D (CSX). The area is located outside of the Park boundary, and is not considered an area of high scenic or aesthetic value. The area consists of an area devoid of mature hardwood or other native trees, and consists largely of invasive plants such as kudzu.

Conclusion

Both trail alternatives would be constructed in areas already disturbed that do not contribute to the natural or aesthetic features of the Park. Construction of the trails adjacent to Old 41 Highway would not introduce a noticeable feature to the Park that would be considered adverse to the scenic quality of the Park. Trail Alternative 1 is the environmentally preferred alternative.

Parking Lot Alternatives A (Across from HQ/VC) and B (Activity Field 2) would eliminate natural areas of the Park used and enjoyed by visitors and Park staff that contribute to the scenic value of the Park. Constructions of Parking Lot Alternative B (Activity Field 2) would also remove a portion of a visitor use area. Parking Lot Alternative D (CSX) is the environmentally preferred alternative because it is located outside the Park boundary and consists of an area that does not currently provide scenic or aesthetic value.

The implementation of any of the alternatives would not impair scenic or aesthetic resources or values that are:

- 1) Necessary to fulfill specific purposes identified in the enabling legislation of the Park,
- 2) Key to the natural or cultural integrity of the Park or opportunities for enjoyment of the Park, and
- 3) Identified as a goal in the Park's General Management Plan or other NPS planning documents.

6.3.6 Soils

Affected Environment

The areas proposed for the trail alternatives consist largely of fill material brought in for the road construction. Areas considered for parking lots would be more likely to contain the soils mapped in the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Soil Survey for Cobb County, Georgia.

According to NRCS data, Parking Lot Alternative A (Across from HQ/VC) is entirely Gwinnett clay loam, 6 to 10 percent slopes, severely eroded (GeC3). The land capability of GeC3 is 3e, meaning the soils have severe limitations that reduce the choice of plants, require special conservation practices, or both, due to the erosion hazard. This soil map unit is not prime farmland.

Parking Lot Alternative B (Activity Field 2) is primarily Gwinnett loam, 2 to 6 percent slopes, eroded (GgB2). The land capability of GgB2 is also 3e; the soils in this area have severe limitations that reduce the choice of plants, require special conservation practices, or both, due to the erosion hazard. However, this soil map unit is considered prime farmland.

Parking Lot Alternative D (CSX) is also primarily GgB2. This area also has a land capability of 3e; the soils have severe limitations that reduce the choice of plants, require special conservation practices, or both, due to erosion hazard. This soil map unit is considered prime farmland.

No Action Alternative

The No Action Alternative would have no impacts on soils in the Park. Because the trail and parking lot would not be built, soils would not be impacted from grading or construction activities.

Trail Alternative 4 - Environmentally Preferred Alternative / NPS Preferred Alternative

Adverse impacts to soils from this alternative would be moderate. The road shoulder where the trail would be constructed consists of fill material. Some grading would be required to construct the trail and create drainage swales. During construction, erosion and sediment control procedures and practices would be implemented. Also, trail construction and landscaping would help stabilize soils.

Trail Alternative 5

Adverse impacts to soils from this alternative would be moderate. Construction of the trail along Old 41 Highway east of Ridenour Road would be constructed in disturbed areas of fill material. Some grading would be required to construct the trail and create drainage swales. During construction, erosion and sediment control procedures and practices would be implemented. Although the trail would be constructed in the road shoulder west of Ridenour Road, the shoulder is adjacent to a terraced shoulder of the adjacent woods. Trail construction and landscaping would help stabilize soils along the road shoulder, but could contribute to erosion of the terraced shoulder.

Parking Lot Alternative A (Across from HQ/VC)

Adverse impacts to soils would be moderate. Construction of the parking lot would require grading for construction. Because this area is a landscaped field within the Park boundary, soils in this area are likely more representative of natural soils. Parking lot construction and landscaping would help to stabilize soils in the long term. Impervious materials used to construct the parking lot would help to stabilize soils, preventing loss of soils from construction, use, or erosion. Drainage structures would be a design component to channel storm water and prevent erosion of soils adjacent to the parking lot. On-site soils would be used to the extent possible during construction to minimize off-site disposal, or introduction of new fill material.

Parking Lot Alternative B (Activity Field 2)

Adverse impacts to soils would be moderate. Construction of the parking lot would require grading for construction. Because this area is a landscaped field within the Park boundary, soils in this area are likely more representative of natural soils. Parking lot construction and landscaping would help to stabilize soils. Impervious materials used to construct the parking lot would help to stabilize soils, preventing loss of soils from construction, use, or erosion. Drainage structures would be a design component to channel storm water and prevent erosion of soils adjacent to the parking lot. Storm water would be channeled away from the parking lot and toward existing storm water conveyances. On-site soils would be used to the extent possible during construction to minimize off-site disposal, or introduction of new fill material. The existing dirt Park road connecting Old 41 Highway to Activity Field 2 would be improved and paved to accommodate vehicle and pedestrian traffic. These improvements may require grading for construction.

Parking Lot Alternative D (CSX) - Environmentally Preferred Alternative / NPS Preferred Alternative

Adverse impacts to soils would be moderate. Construction of the parking lot would require grading for construction. Parking lot construction and landscaping would help to stabilize soils. Impervious materials used to construct the parking lot would help to stabilize soils, preventing loss of soils from construction, use, or erosion. Drainage structures would be a design component to channel storm water and prevent erosion of soils adjacent to the parking lot. Storm water would be channeled away from the parking lot and toward the CSX rail road, following the natural contours of the area. On-site soils would be used to the extent possible during construction to minimize off-site disposal, or introduction of new fill material.

Conclusion

Trail construction would occur largely within disturbed road shoulders consisting of fill material. However, Trail Alternative 5 would contribute to erosion of the terraced shoulder adjacent to the road shoulder and effect soils in the area. Trail Alternative 4 is the environmentally preferred alternative.

All of the proposed parking lot alternatives would result in moderate impacts to soils because of grading activities required for construction. However Parking Lot Alternatives A (Across for HQ/VC) and B (Activity Field 2) would occur in existing natural areas within the Park. Parking Lot Alternative D (CSX) is the environmentally preferred alternative.

The implementation of any of the alternatives would not impair soil resources or values that are:

- 1) Necessary to fulfill specific purposes identified in the enabling legislation of the Park,
- 2) Key to the natural or cultural integrity of the Park or opportunities for enjoyment of the Park, and
- 3) Identified as a goal in the Park's General Management Plan or other NPS planning documents.

6.3.7 *Transportation*

Affected Environment

The transportation network in and around the Park consists of roads used by area residents and commuters for connectivity to major highways, as well as visitors to the Park. The two primary roads in the vicinity of the proposed project are Old 41 Highway, which runs approximately east to west, and Stilesboro Road, which runs approximately north to south. These roads intersect at a signalized intersection northwest of the Visitor Center. These roads are maintained by Cobb County, and are permitted through the Park in agreements between the NPS and Cobb County. The proposed trail and parking lot projects would not directly alter or realign these two roads, but their implementation would affect traffic volumes and transportation patterns.

No Action Alternative

Adverse impacts from the No Action Alternative would be moderate. If the trail were not constructed, an alternative to driving to the Park would not be provided, especially when considered in context of connectivity of this trail with the Cobb County trail system, which provide access to the Park for a broader area of Cobb County. Without additional

parking, visitors would continue to compete for the limited parking spaces in the area. With anticipated increase in attendance to the Park, use of existing parking would continue to contribute to safety concerns.

Trail Alternative 4 - Environmentally Preferred Alternative / NPS Preferred Alternative

Beneficial impacts to transportation from Trail Alternative 4 would be moderate. The trail would provide an alternative to visitor traffic. Visitors would be able to access the trail away from the congested intersection of Old 41 Highway and Stilesboro Road. When the trail is connected to other trails within the Cobb County trail system, the trail would provide an alternative to driving to the Park to a larger geographic area.

Trail Alternative 5

Beneficial impacts to transportation from Trail Alternative 5 would be moderate. The trail would provide an alternative to vehicular traffic. Visitors would be able to access the trail away from the congested intersection of Old 41 Highway and Stilesboro Road. When the trail is connected to other trails within the Cobb County trail system, the trail would provide an alternative to driving to the Park to a larger geographic area.

Parking Lot Alternative A (Across from HQ/VC)

Parking Lot Alternative A (Across from HQ/VC) would have moderate adverse impacts to transportation. Its location adjacent to the Visitor Center parking lot would contribute to congestion in the area, as well as to traffic using the Mountain Road to the top of Kennesaw Mountain. Access to the parking lot would draw additional traffic to heavily traveled Stilesboro Road.

Parking Lot Alternative B (Activity Field 2)

Parking Lot Alternative B (Activity Field 2) would have moderate beneficial impacts to transportation. Access to the parking lot would be from an existing dirt Park road that connects Old 41 Highway and Activity Field 2. This access would remove traffic from the heavily traveled intersection of Stilesboro Road and Old 41 Highway. There would be no access from this parking lot to Stilesboro Road.

Parking Lot Alternative D (CSX) - Environmentally Preferred Alternative / NPS Preferred Alternative

Parking Lot Alternative D (CSX) would have moderate beneficial impacts to transportation. Its distance from the intersection of Old 41 Highway and Stilesboro Road would reduce visitor traffic volumes from this busy intersection and the Visitor Center parking lot.

Conclusion

The proposed trail alternatives would have beneficial moderate impacts to transportation. The trails would provide an alternative to access Park facilities and reduce vehicle travel to other areas of the Park. Trail Alternative 4 is the environmentally preferred alternative.

Although Parking Lot Alternative B (Activity Field 2) would have beneficial impacts due to access from the parking lot distant from congested areas of the Park, Parking Lot Alternative D (CSX) is the environmentally preferred alternative because it would construct the parking lot in an area that is not currently within the Park and would remove traffic away from congested areas of the Park. Parking Lot Alternative A (Across for HQ/VC) would contribute to congestion in areas already used or that experience heavy traffic volumes.

The implementation of any of the alternatives would not impair traffic resources or values that are:

- 1) Necessary to fulfill specific purposes identified in the enabling legislation of the Park,
- 2) Key to the natural or cultural integrity of the Park or opportunities for enjoyment of the Park, and
- 3) Identified as a goal in the Park's General Management Plan or other NPS planning documents.

6.3.8 Vegetation

Affected Environment

Areas considered for trail alternatives largely consist of graded bare areas used for parking, devoid of vegetation. There are a few areas of road shoulder not used for parking that consist of various grass species. Vegetative areas adjacent to the trail alternatives consist of a mixed hardwood/pine forest. The canopy is dominated by species that included loblolly pine (*Pinus taeda*), tulip poplar (*Liriodendron tulipifera*), eastern sycamore (*Platanus occidentalis*), red maple (*Acer rubrum*), and sweetgum (*Liquidambar styraciflua*). The sub-canopy is dominated by Chinese privet (*Ligustrum sinense*), flowering dogwood (*Cornus florida*), Japanese honeysuckle (*Lonicera japonica*), and saplings of the previously mentioned hardwoods. The forest floor is dominated by Christmas fern (*Polystichum acrostichoides*), cat greenbrier (*Smilax glauca*), poison ivy (*Toxicodendron radicans*), blackberry (*Rubus* sp.), and muscadine (*Vitis rotundifolia*).

Parking lot areas consist primarily of mowed, grassed fields or sub-canopy and forest floor species including fescue (*Festuca spp.*), Bermuda (*Cynodon dactylon*), common plantain (*Plantago major*), wild onion (*Allium spp.*), red clover (*Trifolium pretense*), dandelion (*Taraxacum officinale*), kudzu (*Pueraria montana*), dog fennel (*Eupatorium capillifolium*), blackberry, Chinese privet, and Japanese honeysuckle.

The latest listing of state and federally protected species for Cobb County generated by the US Fish and Wildlife Service includes the following species:

Bay Star-vine – State Threatened
Georgia Aster – Federal Candidate
Indian Olive – State Threatened
Michaux's Sumac – Federally Endangered
Open-ground whitlow grass – State Endangered
White Fringeless Orchid – Federal Candidate

None of these species were observed within the areas considered for trail or parking lot alternatives. Marginal habitat was present for Bay Star-vine, Georgia Aster, and Indian Olive. Field surveys were conducted in April 2008, during the flowering period for Bay Star-vine and Indian Olive. These species are easiest to identify during their flowering period. No Bay Star-vine or Indian Olive were observed during this period. Marginal habitat for Georgia Aster was present within Parking Lot Alternatives A (Across for HQ/VC) and B (Activity Field 2). However, these areas have been graded and cleared for their current uses. There are no known occurrences of Georgia Aster within these parking lot alternatives.

The Georgia Department of Natural Resources (GA DNR) Natural Heritage Program was contacted in 2002 when the project was first initiated for known occurrences of state and federally listed species within a three mile radius of the project area. The closest listed species were two miles from the project area. Another request was submitted in 2008 for an updated list of known species occurrence. According to the latest response from the GA DNR Natural Heritage Program there are no occurrences for listed species within the alternatives.

No Action Alternative

The No Action Alternative would have no impact to vegetation in the proposed areas.

Trail Alternative 4 - Environmentally Preferred Alternative / NPS Preferred Alternative

Adverse impacts to vegetation would be moderate. There is no vegetation within the disturbed road shoulder currently used for parking. The typical section of the trail would consist of new curb and gutter, grassed strip, the paved trail, and a grassed shoulder and/or drainage swales. The total width of this typical section would be a maximum of approximately 20 feet from the existing edge of the road pavement. Construction of the trail may encroach into the hardwood/pine forested areas adjacent to the road shoulder, although the typical section will be modified to result in the least impacts to

vegetation. Trees removed would consist of hardwood saplings and pine trees. No hardwood trees greater than 6 inches diameter at breast height (6" dbh) would be removed.

Trail Alternative 5

Adverse impacts to vegetation would be moderate. There is no vegetation within the disturbed road shoulder currently used for parking. The typical section of the trail would consist of new curb and gutter, grassed strip, the paved trail, and a grassed shoulder and/or drainage swales. The total width of this typical section would be a maximum of approximately 20 feet from the existing edge of the road pavement. Construction of the trail may encroach into the hardwood/pine forested areas adjacent to the road shoulder, although the typical section will be modified to result in the least impacts to vegetation. Trees removed would consist of hardwood saplings and pine trees. No hardwood trees greater than 6 inches dbh would be removed.

Parking Lot Alternative A (Across from HQ/VC)

Adverse impacts to vegetation would be moderate. Construction of the parking lot would require clearing of this area. The grasses that make up this mowed field would be removed for construction. The grasses do not represent state or federally protected species. However, construction of the parking lot would eliminate a natural feature within the Park, and replace it with a man-made impervious structure.

Parking Lot Alternative B (Activity Field 2)

Adverse impacts to vegetation would be moderate. Construction of the parking lot would require clearing of this area of Activity Field 2. The grasses that make up this mowed field would be removed for construction. The grasses do not represent state or federally protected species. However, construction of the parking lot would eliminate a natural feature within the Park currently available for visitor use, and replace it with a man-made impervious structure.

Parking Lot Alternative D (CSX) - Environmentally Preferred Alternative / NPS Preferred Alternative

Adverse impacts to vegetation would be moderate. Construction of the parking lot would require clearing of the area. However, plant species identified on this property included primarily invasive plant species including kudzu, Chinese privet, and Japanese honeysuckle. There are some trees at the periphery of the property, but the majority are pine trees or hardwood saplings.

Conclusion

The proposed trail alternatives would result in adverse, moderate effects to vegetation. The majority of the trail would be constructed within the previously disturbed road shoulder used for parking. The impacts are due to minor encroachments into the adjacent hardwood/pine forest that would require some clearing of ground vegetation and trees smaller than 6" dbh. Trail Alternative 5 would require removal of an area of mowed grass shoulder. Trail Alternative 4 is in an area that is either used for parking or is a graded road shoulder. Trail Alternative 4 is the environmentally preferred alternative.

Construction of the parking lots would result in moderate adverse effects to vegetation due to clearing required for construction. Parking Lot Alternatives A (Across for HQ/VC) and B (Activity Field 2) would remove natural areas within the Park. Parking Lot Alternative B (Activity Field 2) would also eliminate a portion of a recreational field. Parking Lot Alternative D (CSX) would require clearing for construction, but the area consists primarily of invasive plant species. This area is not currently included within the Park boundary. Parking Lot Alternative D (CSX) is the environmentally preferred alternative.

The implementation of any of the alternatives would not impair vegetative resources or values that are:

- 1) Necessary to fulfill specific purposes identified in the enabling legislation of the Park,
- 2) Key to the natural or cultural integrity of the Park or opportunities for enjoyment of the Park, and
- 3) Identified as a goal in the Park's General Management Plan or other NPS planning documents.

6.3.9 Visitor Safety

Affected Environment

Designated parking is provided for visitors throughout the Park. In the areas for the proposed trail and parking lot, parking is permitted along the unpaved shoulder of Old 41 Highway and at a paved parking lot at the Visitors Center. The safety of visitors parking along Old 41 Highway and walking to the Visitor Center and adjacent facilities is a concern of the Park. Up to 750 cars per day park along the Old 41 Highway shoulder. While many of the cars are parked at an angle to the extremely busy roadway, others park parallel to the road. Visitors walking to or from their vehicles or loading and unloading their vehicles are within feet of the traffic that rarely is under the 35 mph posted speed limit. A large number of commercial operations with heavy trucks, construction equipment, and tractor trailers use Old 41 Highway to access area business. The high speed and quantity of traffic, the narrow to non-existent shoulders for pedestrian use, and the heavy trucks create a hazardous situation leading into the primary asset area of the Park – Kennesaw Mountain and the Visitor Center. Most visitors walk along the dirt shoulder toward the Visitor Center. However on days where attendance is high and the parking area is at capacity, visitors often walk on or dangerously close to Old 41 Highway.

No Action Alternative

Adverse impacts to safety would be moderate. There would be no alternative to the unsafe roadside parking on Old 41 Highway, and no safe pedestrian alternative to walking along or adjacent to the road.

Trail Alternative 4 - Environmentally Preferred Alternative / NPS Preferred Alternative

Beneficial impacts to visitor safety would be moderate. The trail would provide a safer alternative for pedestrians to walk to the Visitor Center and other Park facilities. The trail would be separated from the road by a two-foot curb and gutter and grass strip varying in width from two to five feet, creating a buffer between vehicles and pedestrians. The trail would also eliminate the dangerous road shoulder parking on the south side of Old 41 Highway. New curb and gutter would also be installed on the north side of Old 41 Highway, eliminating road shoulder parking on the north side of the road.

This alternative would also place the trail on the same side of the road and adjacent to the environmentally preferred parking lot alternative, Parking Lot Alternative D (CSX). The proximity of the trail to the parking lot would eliminate safety issues arising from having the trail and parking lot on opposite sides of Old 41 Highway. This parking lot would provide safe access to Activity Field 2 from an existing dirt road adjacent to this parking lot alternative.

Trail Alternative 5

Beneficial impacts to visitor safety would be moderate. The trail would provide a safer alternative for pedestrians to walk to the Visitor Center and other Park facilities. The trail would be separated from the road by a two-foot curb and gutter and grass strip varying in width from two to five feet, creating a buffer between vehicles and pedestrians. The trail would also eliminate the dangerous road shoulder parking on the north side of Old 41 Highway. New curb and gutter would also be installed on the south side of Old 41 Highway, eliminating road shoulder parking on the south side of the road.

Access to the trail under this alternative would require crossing Old 41 Highway. Parking Lot Alternative D (CSX) would require design of pedestrian tunnel under Old 41 Highway or modification of the proposed road bridge to allow pedestrians to pass under the bridge approaches. Additional design would be required to provide for safe pedestrian passage from the south side of the road to the trail on the north side.

Parking Lot Alternative A (Across from HQ/VC)

Adverse impacts to visitor safety would be moderate. Access to the proposed trail would be provided through existing trail and pedestrian crossings. This alternative would also consolidate parking in an area of high pedestrian use of the Visitor Center, hiking to Kennesaw Mountain, and observing living history exhibits that occur on the grounds adjacent to the Visitor Center.

Parking Lot Alternative B (Activity Field 2)

Beneficial impacts from Parking Lot Alternative B (Activity Field 2) would be moderate. Access to the proposed trail would use an existing dirt road to Old 41 Highway. If the trail were constructed on the north side of the road, design modifications or structures would be required to safely cross Old 41 Highway. Parking Lot Alternative B (Activity Field 2) would require visitors to use the dirt road northeast of Activity Field 2 to access Old 41 Highway. At this point design modification discussed above would be required to provide safe passage across Old 41 Highway.

Parking Lot Alternative D (CSX) - Environmentally Preferred Alternative / NPS Preferred Alternative

Beneficial impacts to visitor safety from this alternative would be moderate. As discussed above, this alternative is adjacent to the environmentally preferred trail alternative, and would provide safe access to the trail. This alternative would also provide for parking distant from the congested intersection of Stilesboro Road and Old 41 Highway and the Visitor Center, avoiding safety concerns associated with increased traffic.

Conclusion

Both of the trail alternatives would provide safe pedestrian access and eliminate the existing road shoulder parking. However, Trail Alternative 5 would require additional design features or modifications for access depending upon which parking lot alternative is chosen. Trail Alternative 4 would be adjacent to the environmentally preferred parking lot alternative, providing safe access between the trail and the parking lot. Trail Alternative 4 is the environmentally preferred alternative.

Parking Lot Alternative A (Across from HQ/VC) would be in an area already experiencing congestion due to heavy use. Parking Lot Alternative B (Activity Field 2) would provide safe access to the environmentally preferred trail alternative on an existing Park road. Parking Lot Alternative D (CSX) is the environmentally preferred alternative. Its location would be adjacent to the environmentally preferred trail alternative, providing safe access between the trail and parking area. It would also provide safe access to Activity Field 2 and because of its location would remove cars from the congested area around the Visitor Center.

The implementation of any of the alternatives would not impair visitor safety resources or values that are:

- 1) Necessary to fulfill specific purposes identified in the enabling legislation of the Park,
- 2) Key to the natural or cultural integrity of the Park or opportunities for enjoyment of the Park, and
- 3) Identified as a goal in the Park's General Management Plan or other NPS planning documents.

6.3.10 Visitor Use, Understanding, and Appreciation

Affected Environment

The majority of the 2,888 acres of the Park is undeveloped, and is one of the few remaining examples of rural Cobb County. The Park represents one of the largest undisturbed green spaces in the Atlanta Metro area. The Park is a popular outdoor recreation area for Cobb County and the Atlanta area. The Park maintains approximately 16 miles of hiking trails, with horseback riding allowed on some trails. Because of its location near residential areas, the Park's trail system is heavily used year around.

In addition to its recreational use, the Park is a memorial to the Atlanta Campaign of the Civil War. The Park is a memorial to those who fought in the battle, and serves an educational function for those interested in American history. The Visitor Center contains a museum with artifacts from the battle and information about the Civil War. Living history events, guided tours, monuments, and interpretive signs also provide educational opportunities for visitors who enjoy the historic perspective of the Park.

No Action Alternative

Impacts would be adverse and moderate. Additional recreational opportunities would not be available. Parking in proximity to Park facilities would continue to interfere with visitors experience to the Park.

Trail Alternative 4 - Environmentally Preferred Alternative / NPS Preferred Alternative

Impacts to Trail Alternative 4 would be beneficial and moderate. The trail would provide additional recreational opportunities within the Park. When connected to the Cobb County trail system outside the Park, the trail would provide opportunities to a larger geographic area of the county. Interpretive signs along the trail route would provide additional information about the natural and cultural features of the Park without directly impacting these resources.

Trail construction would occur in areas currently used for parking. To eliminate disruption in visitor use impacts to the existing limited parking capacity, additional parking areas would be constructed prior to beginning trail construction. Trail construction would not impact visitor use of Park facilities. Alternative routes to facilities would be designated that would avoid construction areas.

Trail Alternative 5

Impacts to Trail Alternative 5 would be beneficial and moderate. The trail would provide additional recreational opportunities within the Park. When connected to the Cobb County trail system outside the Park, the trail would provide opportunities to a larger geographic area of the county. Interpretive signs along the trail route would provide additional information about the natural and cultural features of the Park.

Trail construction would occur in areas currently used for parking. To eliminate disruption in visitor use impacts to the existing limited parking capacity, additional parking areas would be constructed prior to beginning trail construction. Trail construction would not impact visitor use of Park facilities. Alternative routes to facilities would be designated that would avoid construction areas.

Parking Lot Alternative A (Across from HQ/VC)

Impacts to visitor use and appreciation from Parking Lot Alternative A (Across from HQ/VC) would be adverse and moderate. Although the area is not available for visitor use, it does represent the natural scenery of the Park, which would be permanently changed with construction of the parking lot. The grassed field would be converted to a man-made hard surface. The location of the parking lot is in a high-visibility area adjacent to the Visitor Center where changes to the natural setting of the Park would be noticeable.

Construction of the parking lot would require access for equipment from the existing Visitor Center parking lot. There would be increased congestion during construction with the combination of visitor and construction traffic. The parking lot would be convenient to facilities in this area of the Park. The lot would be adjacent to the Visitor Center and access to the top of Kennesaw Mountain.

Parking Lot Alternative B (Activity Field 2)

Impacts to visitor use and appreciation from Parking Lot Alternative B (Activity Field 2) would be adverse and moderate. This alternative would convert a portion of the natural setting of a recreational area available for visitor use to a parking lot. The field is used for visitor recreation, and represents the natural scenery of the Park, which would be permanently changed with construction of the parking lot.

Parking Lot Alternative D (CSX) - Environmentally Preferred Alternative / NPS Preferred Alternative

Parking Lot Alternative D (CSX) would result in beneficial and moderate impacts to visitor use, understanding, and appreciation of the Park. This alternative is not currently located within the Park boundary, and is not an area used by visitors. After the parking lot is constructed, the property would be added to the Park, providing additional parking. There

would also be additional interpretive opportunities on the property that would be incorporated into development of the parking lot. The parking lot would provide convenient access to the environmentally preferred trail alternative and Activity Field 2.

Access for construction would be from Old 41 Highway, and not affect visitor use of existing facilities. The parking lot would be adjacent to the environmentally preferred trail alternative, and provide convenient access to Activity Field 2. This location would reduce congestion from the busy intersection of Old 41 Highway and Stilesboro Road, and at the Visitor Center.

Conclusion

Impacts to visitor use and appreciation from the proposed trail alternatives would be moderate and beneficial. Both alternatives would provide additional recreational opportunities for Park visitors and would add to the existing Park trail network. Trail Alternative 4 would be adjacent to the environmentally preferred Parking Lot Alternative A (Across from HQ/VC) and other existing Park facilities. Trail Alternative 4 is the environmentally preferred alternative. Construction phasing would ensure that trail construction would not adversely affect use of Park facilities.

Parking Lot Alternatives A (Across for HQ/VC) and B (Activity Field 2) would eliminate natural areas of the Park located in high visibility areas of the Park. In addition Parking Lot Alternative B (Activity Field 2) would eliminate a portion of a recreational areas used by visitors. Parking Lot Alternative D (CSX) is located outside the current Park boundary, and converting this area to a parking lot would not impact existing visitor use of the Park. This alternative is located adjacent to the environmentally preferred trail alternative, and would provide convenient access to the proposed trail and to Activity Field 2. Parking Lot Alternative D (CSX) is the environmentally preferred alternative.

In the short term, construction of Parking Lot Alternatives A (Across for HQ/VC) would affect congestion and visitor use due to the close proximity to the Visitor Center, and existing parking lot. Parking Lot Alternative A (Across from HQ/VC) would be convenient to facilities, but its location would prevent use of the area for other visitor activities. Parking Lot Alternative B (Activity Field 2) would convert a portion of Recreational Area #2 from recreational uses to a parking facility. The adverse impacts to park operations from Parking Lot Alternative B (Activity Field 2) would be moderate. This alternative would provide safe access to the environmentally preferred trail alternative from an existing dirt Park road from Old 41 Highway to the parking lot alternative. The road would be improved to accommodate vehicles and pedestrians. Parking Lot Alternative D (CSX) is the environmentally preferred alternative because the area is currently outside the Park boundary, the alternative would not affect visitor use of existing facilities, and the CSX property would benefit from the level of protection given by the NPS. It would reduce congestion from the intersection of Old 41 Highway and Stilesboro Road, and would provide convenient access to existing facilities and the environmentally preferred alternative for the multi-use trail.

The implementation of any of the alternatives would not impair visitor use, understanding, and appreciation resources or values that are:

- 1) Necessary to fulfill specific purposes identified in the enabling legislation of the Park,
- 2) Key to the natural or cultural integrity of the Park or opportunities for enjoyment of the Park, and
- 3) Identified as a goal in the Park's General Management Plan or other NPS planning documents.

6.3.11 Water Resources (Water Quality and Streams)

Affected Environment

The Park contains three perennial and numerous intermittent streams that are a part of the Noonday Creek drainage area. The permanent streams in the Park include Noonday Creek, Noses Creek, and John Ward Creek. None of these streams are within the project alternatives for the trail or parking lots. Streams identified within and adjacent to the project areas are identified as ephemeral drainages, conveying storm water during rain events, or intermittent streams. These streams are shown on Figure 9.

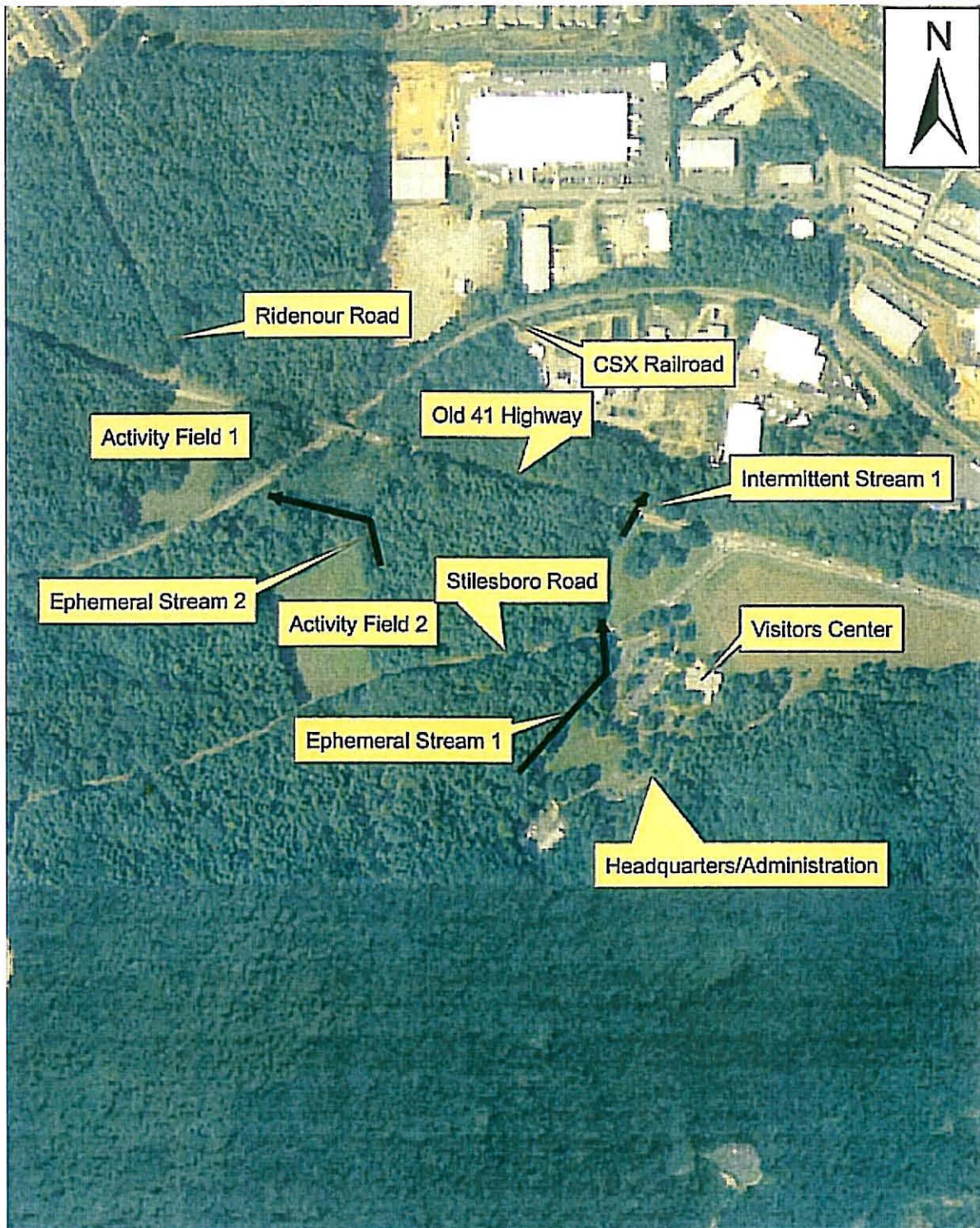


Figure 9
Stream Locations

No Action Alternative

There would be no impact to water quality of streams in the project area from construction activities because the trail and parking lot would not be constructed.

Trail Alternative 4 - Environmentally Preferred Alternative / NPS Preferred Alternative

Adverse impacts to streams from Trail Alternative 4 would be negligible. There is one intermittent stream in the project area. Intermittent Stream 1 is an unnamed tributary to Noonday Creek. It is approximately five to six feet wide with a water depth of up to six inches. This stream supports its designated use.

The stream flows under Old 41 Highway via a concrete pipe. The head wall and entrance to the pipe on the south side of Old 41 Highway is approximately 15 to 20 feet from the edge of pavement. Construction of the trail would occur within the road shoulder between the edge of pavement and the stream headwall.

Trail construction would not require placement of fill material, relocation, or culvert extension to the intermittent stream. There would be no impact to Intermittent Stream 1. Permitting under Section 404 of the Clean Water Act would not be required.

Temporary sedimentation may occur from construction activities. Erosion control devices and best management practices would be implemented during construction. Because the trail alignment is perpendicular to the intermittent stream, a stream buffer variance is not required.

Trail Alternative 5

Adverse impacts to streams from Trail Alternative 5 would be negligible. The stream identified under the discussion for Trail Alternative 4 is also located in the area of this alternative on the north side of Old 41 Highway.

The head wall and outflow from the pipe for the stream is approximately 15 to 20 feet from the edge of pavement. Construction of the trail would occur within the road shoulder between the edge of pavement and the headwalls to the streams.

Trail construction would not require placement of fill material, relocation, or culvert extension to the intermittent stream. There would be no impact to the Intermittent Stream 1. Permitting under Section 404 of the Clean Water Act would not be required.

Temporary sedimentation may occur from construction activities. Erosion control devices and best management practices would be implemented during construction. Because the trail alignment is perpendicular to the intermittent stream, a stream buffer variance is not required.

Parking Lot Alternative A (Across from HQ/VC)

Adverse impacts to streams from Parking Lot Alternative A (Across from HQ/VC) would be negligible. Ephemeral Stream 1 is located adjacent to the project area. Ephemeral Stream 1 is a fully functional drainage system, approximately two to eight feet wide. The ephemeral stream begins in the woods adjacent to the north end of the parking lot alternative. The stream direction is in a northeasterly direction and is conveyed under Stilesboro Road via a concrete pipe. The stream continues northeasterly outside the pipe and flows into Intermittent Stream 1.

Parking lot construction would not require filling or redirecting the ephemeral stream. Ephemeral Stream 1 does not significantly contribute chemically or biologically to a jurisdictional Water of the US, and is therefore not regulated by the US Army Corps of Engineers. Permitting under Section 404 of the Clean Water Act would not be required. Temporary sedimentation may occur from construction activities. Erosion control devices and best management practices would be implemented during construction. Stream buffers are not required for ephemeral drainages.

Parking Lot Alternative B (Activity Field 2)

Adverse impacts to streams from Parking Lot Alternative B (Activity Field 2) would be negligible. Ephemeral Stream 2 is located within the project area. Ephemeral Stream 2 is a somewhat impaired drainage system, with degradation including ditching and piping. Ephemeral Stream 2 is one to three feet wide. The ephemeral stream begins in the woods east of Activity Field 2 and flows northwesterly toward the CSX railroad.

Parking lot construction would not require filling or redirecting the ephemeral stream. Ephemeral Stream 2 does not significantly contribute chemically or biologically to a jurisdictional Water of the US, and is therefore not regulated by the US Army Corps of Engineers. Permitting under Section 404 of the Clean Water Act would not be required. Temporary sedimentation may occur from construction activities. Erosion control devices and best management practices would be implemented during construction. Stream buffers are not required for ephemeral drainages.

Parking Lot Alternative D (CSX) - Environmentally Preferred Alternative / NPS Preferred Alternative

Adverse impacts to streams from Parking Lot Alternative D (CSX) would be moderate. Ephemeral Stream 2 is located within the project area. Ephemeral Stream 2 is a somewhat impaired drainage system, with degradation including ditching and piping. Ephemeral Stream 2 is one to three feet wide. The ephemeral stream begins in the woods east of Activity Field 2 and continues northwesterly through Parking Lot Alternative D (CSX) to the CSX railroad.

Parking lot construction would require filling the ephemeral stream channel. However, the ephemeral stream does not significantly contribute chemically or biologically to a jurisdictional Water of the US, and is therefore not regulated by the US Army Corps of Engineers. Permitting under Section 404 of the Clean Water Act would not be required.

Conclusion

Impacts from both of the trail alternatives would be negligible. Trail construction would not require filling the stream or redirecting stream channel. The trail would be constructed within the road shoulder between the edge of pavement and headwalls of the piped stream. There would be no impact to the intermittent stream. No permits under Section 404 of the Clean Water Act are required. Sediment and erosion control procedures would be followed to prevent sedimentation into the streams. Trail Alternative 4 is the environmentally preferred trail alternative.

Ephemeral streams are located adjacent to Parking Lot Alternatives A (Across for HQ/VC) and B (Activity Field 2), and construction of the parking lots would not impact the streams. Sediment and erosion control procedures would be followed to prevent sedimentation into the streams. The ephemeral stream that crosses Parking Lot Alternative D (CSX) would be filled to construct the parking lot. However, the function of the ephemeral stream to convey storm water would not impact area drainage if it were filled. Parking lot construction would include drainage features. This ephemeral stream does not significantly contribute biologically or chemically to a Water of the US. Parking Lot Alternative D (CSX) is the environmentally preferred alternative.

The implementation of any of the alternatives would not impair streams or water quality resources or values that are:

- 1) Necessary to fulfill specific purposes identified in the enabling legislation of the Park,
- 2) Key to the natural or cultural integrity of the Park or opportunities for enjoyment of the Park, and
- 3) Identified as a goal in the Park's General Management Plan or other NPS planning documents.

6.3.12 Wildlife

Affected Environment

The size, location in a developed area of Atlanta, and largely undisturbed natural settings of the Park make it a suitable habitat for many terrestrial and aquatic species normally found in more rural areas of Georgia. Typical wildlife within the Park includes white tailed deer (*Odocoileus virginiana*), turkey (*Meleagris gallopavo*), opossum (*Didelphis marsupialis*), raccoon (*Procyon lotor*), eastern chipmunk (*Tamias striatus*), skunk (*Mephitis mephitis*), gray squirrel (*Sciurus carolinensis*), coyote (*Canis latrans*), red fox (*Vulpes vulpes*), eastern box turtle (*Terrapene carolina carolina*), green

anole (*Anolis carolinensis*), rat snake (*Elaphe spp.*), black racer (*Anolis carolinensis*), garden snake (*Thamnophis spp.*), morning dove (*Zenaida macroura*), chimney swift (*Chaetura pelagica*), downy woodpecker (*Picoides pubescens*), American Robin (*Turdus migratorius*), and Northern cardinal (*Cardinalis cardinalis*). The latest listing of state and federally protected species for Cobb County generated by the US Fish and Wildlife Service includes the following species:

Fish

Bluestripe Shiner – State Threatened

Cherokee Darter – Federally Threatened & State Threatened

Highshale Shiner – State Threatened

There was no suitable habitat for these species in the areas of the various trail and parking lot alternatives.

The bald eagle is also listed for Cobb County. However since the compilation of the list, the bald eagle has been delisted by the US Fish and Wildlife Service. Bald eagles are now protected under Bald and Golden Eagle Protection Act. There are no known nests in the Park, and the Park does not provide suitable foraging habitat. The closest verified nests are along Lake Allatoona, approximately five miles north of the Park.

The Georgia Department of Natural Resources (GA DNR) Natural Heritage Program was contacted in 2002 when the project was first initiated for known occurrences of state and federally listed species within a three mile radius of the project area. The closest listed species were two miles from the project area. Another request was submitted in 2008 for an updated list of known species occurrence. According to the latest response from the GA DNR Natural Heritage Program there are no known occurrences within the alternatives.

The Park represents a large undisturbed green space in metro Atlanta, and is therefore potential habitat for migratory bird species. The Park's volunteer naturalist was contacted regarding any known occurrences of migratory birds in the areas of the proposed trail and parking lot. He was not aware of any known occurrence of migratory birds in these areas. He did not consider construction of the trail and parking lot to be an adverse impact to migratory bird species that use the Park.

No Action Alternative

No impacts to wildlife from construction activities for the trail and parking lot would occur.

Trail Alternative 4 - Environmentally Preferred Alternative / NPS Preferred Alternative

Impacts to wildlife would be negligible. The trail would be constructed in an area already disturbed and used for roadside parking. The road shoulder is not considered important habitat for wildlife species found within the Park. Construction of the trail would not displace wildlife species, alter foraging areas, or impair pathways necessary for wildlife movement.

Trail Alternative 5

Impacts to wildlife would be negligible. The trail would be constructed in an area already disturbed and used for roadside parking. The road shoulder is not considered important habitat for wildlife species found within the Park. Construction of the trail would not displace wildlife species, alter foraging areas, or impair pathways necessary for wildlife movement.

Parking Lot Alternative A (Across from HQ/VC)

Adverse impacts to wildlife from Parking Lot Alternative A (Across from HQ/VC) would be moderate. This alternative is a grassed field providing foraging habitat for herbivores such as white-tailed deer. Although construction of the parking lot would remove this foraging habitat, there are adjacent areas that would provide suitable foraging habitat. Construction of the parking lot would alter foraging habits of some species, but these adjustments are not considered severe or unusual.

Parking Lot Alternative B (Activity Field 2)

Adverse impacts to wildlife from Parking Lot Alternative B (Activity Field 2) would be moderate. This alternative is a grassed field providing foraging habitat for herbivores such as white-tailed deer. Although construction of the parking lot would remove this foraging habitat, there are adjacent areas that would provide suitable foraging habitat. Construction of the parking lot would alter foraging habits of some species, but these adjustments are not considered severe or unusual.

Parking Lot Alternative D (CSX) - Environmentally Preferred Alternative / NPS Preferred Alternative

Adverse impacts to wildlife from Parking Lot Alternative D (CSX) would be moderate. The alternative consists primarily of ground cover, invasive plant species, and pine trees. The wooded areas adjacent to this alternative provide habitat for wildlife. The parking lot may displace some wildlife species, but the much larger, higher quality habitats within the Park would provide suitable alternative habitat.

Conclusion

Adverse impacts to wildlife from both trail alternatives would be negligible. The trails would be constructed in areas already disturbed, adjacent to a traveled roadway. The road shoulder is not important habitat for wildlife within the Park. Trail Alternative 4 is the environmentally preferred alternative.

Parking Lot Alternatives A (Across for HQ/VC) and B (Activity Field 2) are grassy fields that represents potential foraging habitat for some species. Although this habitat would be eliminated, there is suitable replacement habitat adjacent to these alternatives. Parking Lot Alternative D (CSX) would remove ground cover and some trees, but the surrounding mixed hardwood/pine forests provide higher quality habitat for wildlife that would be displaced. None of the parking lot alternatives represent large tracts of the total Park area. Because the area of Parking Lot Alternative D (CSX) is outside the existing Park boundary consists of largely invasive plant species, and higher quality habitat is adjacent to the area, this alternative is the environmentally preferred alternative.

The implementation of any of the alternatives would not impair wildlife resources or values that are:

- 1) Necessary to fulfill specific purposes identified in the enabling legislation of the Park,
- 2) Key to the natural or cultural integrity of the Park or opportunities for enjoyment of the Park, and
- 3) Identified as a goal in the Park's General Management Plan or other NPS planning documents.

6.4 Cumulative Impacts

The cumulative impacts analysis for the Noonday Creek Multi-Use Trail Phase II and additional parking lot discussed in this EA consider incremental impacts of the actions coupled with past, present, and reasonably foreseeable future actions on the environment. Cumulative impacts can vary by resource and alternative analyzed, and may often result in both negative and positive impacts when considered within both short and long term time frames. Table 6 summarizes the cumulative impacts for the impact topics and various alternatives.

Future impacts from construction of the trail and parking lot in relation to other projects and activities within the Park are difficult to anticipate. Unknown factors can occur which aren't accounted for at the present time. The type, number, and extent of every future project can not be predicted. However, there are several scheduled projects proposed in the near future. These projects include:

- The Alternate Transportation Study for Bus Shuttle Service to the top of Kennesaw Mountain (NPS on-going),
- The Alternate Transportation Study to address whole Park needs (NPS on-going),
- The Old 41 Highway bridge replacement over the CSX Railroad (Cobb County, scheduled for fall 2008),
- Intersection improvements to White Circle and US 41 (Cobb County, scheduled for fall 2008), and
- The General Trail Management Plan Environmental Assessment (NPS on-going).

These projects, along with other future projects will be assessed for their impacts to the natural and cultural environment of the Park in accordance with NEPA. Part of this assessment will be to determine their cumulative impacts with the proposed multi-use trail and parking lot.

Based on this EA, it is not anticipated that the proposed Noonday Creek Multi-Use Trail, Phase I or the proposed parking lot would have future cumulative adverse impacts to resources within the Park.

Table 6
Cumulative Impacts Summary

Impact Topic	Impacts from Past and Present Activities	Impacts from Proposed Actions (Trail Alternatives 4 and 5; Parking Lot Alternatives A, B, and D)	Cumulative Impacts from Proposed Action (Trail Alternatives 4 and 5; Parking Lot Alternatives A, B, and D)
Air Quality	Increasing attendance to the Park has resulted in increased vehicle trips and therefore emissions, adversely contributing to overall air quality in the Park and Cobb County.	Any alternatives that reduce vehicle trips is considered a beneficial impact to air quality. The trail will provide an alternative to driving to the Park, and additional parking lot will reduce the number of vehicle trips throughout the Park to locate parking opportunities.	Overall impacts to air quality may be minor and difficult to quantify, but any alternatives to driving are considered a benefit to air quality. Coupled with other alternative transportation measures for Cobb County, the options the proposed alternatives provide would result in beneficial impacts.
Archaeological Resources and Historic Structures	Prior to establishment of the Park and protection of its cultural and natural resources the area within the Park, including the earthworks and artifacts associated with the battle, were subject to amateur collectors and impacts from farming that occurred in the area. However, since the date the Park was established these cultural resources have been protected from these types of impacts.	Construction of the trails would occur primarily in areas of previous disturbance. There would be additional interpretive opportunities with access the trails provide. Parking lot construction would occur outside and inside the Park. Parking lot construction would not majorly impact cultural resources. Construction activities would be kept to a minimum to avoid disturbing cultural resources.	Trail and parking lot construction would be located as much as possible to in harmony with existing areas of the Park. Short term adverse impacts would result from construction activities, but long term beneficial impacts would result from additional interpretive opportunities for cultural resources afforded by access the actions provide.
Geology and Topography	Prior to establishment of the Park, the area was subject to impacts from farming that occurred in the area. After the Park's establishment impacts to geology and topography has been minimized and included only facilities necessary for conducting the Park's intended purpose. These actions have included construction of facilities and amenities for visitors, hiking trail construction, Visitor Center, and administrative facilities.	Construction of the trails and parking lot would require minor grading for construction. These actions are not considered severe to topography or geology.	The impervious surfaces created by trail and parking lot construction would have beneficial impacts by stabilizing topography, and preventing future erosion and degradation. Design of the structures would also include drainage features to provide effective storm water discharge. Beneficial cumulative impacts are considered to be moderate.
Park Operations	The location of the Park within an urban area of Atlanta has made the Park a popular destination for hikers, horseback riding, and visitors interested in Civil War and Atlanta history. The Park's popularity has always had an impact to Park staff and operating budgets by trying to accommodate and meet the needs of visitors.	Beneficial impacts to Park operations would be realized from the trail and parking lot construction. The trail will provide additional recreational opportunities, and the parking lot would provide more convenient parking. Adverse impacts would result due to activity required by Park staff to maintain these facilities in the future.	In the short term Cobb County would be responsible for maintenance of the parking lot. This responsibility would eventually be transferred to the Park, requiring adjustments to procedures for maintenance. Trail maintenance would be the responsibility of Cobb County.
Scenic and Aesthetic Value and Concerns	The Park is representative of the rural condition of Cobb County prior to recent development and growth of the area. Even today although surrounded and infiltrated with residential and commercial development, and with facilities added for Park amenities, the 2800 acres of the Park has remained largely unchanged.	Construction of the trails would be within disturbed road shoulders, having no impact to scenic and aesthetic features of the Park. Parking lot construction would occur in natural areas, having minor long term adverse impacts. However, the area impacted by the parking lots represents a minuscule area of the Park's 2,800 acres.	The trail and parking lot represent permanent impacts to the Park. Cumulative impacts in the long term are not considered to be adverse. Attendance is anticipated to increase whether the trail and parking lot are constructed. While additional recreational opportunities from the trail and convenience from additional parking may attract some visitor, they would address a growing concern that is anticipated regardless of their construction.

Impact Topic	Impacts from Past and Present Activities	Impacts from Proposed Actions (Trail Alternatives 4 and 5; Parking Lot Alternatives A, B, and D)	Cumulative Impacts from Proposed Action (Trail Alternatives 4 and 5; Parking Lot Alternatives A, B, and D)
Soils	Prior to establishment of the Park, soils were impacted from activities such as farming, and construction of the roads that traverse the Park. Improvements to the Park since its establishment to provide accommodations and services to visitors have resulted in minor impacts to soils.	Grading may be required for construction of the trail and parking lots. These adverse impacts are considered moderate. Construction of trails would occur in previously disturbed areas of road fill that do not represent natural soils. Parking lot construction would impact soils, but no additional fill is anticipated.	The trail and parking lot would have beneficial long term impacts by stabilizing soils due to the impervious surfaces. These surfaces would help prevent future erosion and degradation. Design of the structures would also include drainage features to provide effective storm water discharge.
Transportation	Some of the roads that traverse the Park were present before its establishment. However, given the rural nature of the area at the time, traffic volumes were small. With increased development of the area around the Park, and establishment of the Park itself, traffic volumes, and therefore efficient transportation concerns, increased.	Trail construction could provide beneficial impacts to the Park by providing an alternative to driving to the Park. The convenience and location of the additional parking lot would provide benefits by directing traffic to parking away from heavily congested and high-use areas of the Park.	The transportation network will continue to be stressed as Park visitors, local residents, commuters, and area businesses utilize the road network in the Park. However, the trail and parking lot construction are considered beneficial impacts by provide alternatives to driving. Beneficial cumulative impacts would be moderate.
Vegetation	The Park is representative of the rural nature of the Cobb County prior to growth and development. Prior to the Park's establishment the area was used for farming. Only minor impacts to vegetation have occurred since the Park's establishment to create and construct visitor amenities and facilities. But the vegetation of the Park is left undisturbed or incorporated into these facilities and improvements.	The trail would have negligible impacts to vegetation. The trail would be constructed in areas already disturbed and used for roadside parking. Parking lot construction would remove some grass areas, or areas of invasive plant species. Adverse impacts to vegetation from parking lot construction would be moderate.	After construction of the trail and parking lot, no further impact to vegetation is anticipated. There would be no cumulative adverse impacts to vegetation.
Visitor Safety	Visitor safety is a primary concern for Park staff, and amenities have been provided with regards to this concern. Lighted, accessible parking, foot trails, pedestrian crosswalks and signals, and Park Ranger presence are a few examples of practices implemented to ensure visitor safety.	The trail would provide a safe alternative for pedestrian traffic to access Park facilities. The trail location would eliminate unsafe roadside parking. Parking lot construction would provide for safe parking areas with convenient access to Park facilities.	Trail construction would eliminate the unsafe roadside parking and provide a better alternative for pedestrians to access the Visitor Center than walking along heavily traveled Old 41 Highway. The parking lot location would provide safer parking with convenient access to Park facilities. The parking lot location would be away from heavily congested areas. Beneficial cumulative impacts would be moderate.
Visitor Use, Understanding, and Appreciation	Park amenities and facilities have been designed and constructed to provide convenient access and useful, beneficial understanding of the historic, cultural, and natural landscapes of the Park. The improvements have been prepared in harmony with and incorporating the features for which the Park was created.	Trail construction would occur in previously disturbed areas of the road shoulder used for Parking. The trail would be incorporated into the existing trail system of the Park to benefit visitor use of existing Park facilities. The parking lot would provide convenient safe access to Park facilities. Additional interpretive opportunities would be available along the trail and parking lot to add to visitor experience to the Park.	Cumulative beneficial impacts would occur from improved recreational opportunities from the trail, safe, additional, convenient parking from the parking lot, and additional interpretive opportunities for the Park's natural, cultural, and historical aspects.
Water Resources (Water Quality and Streams)	Impacts to water resources in the Park have been minimized due to limited construction within the Park that contribute to erosion, sedimentation, or that would require redirecting stream channels. Some streams have been piped under roads, or to provide safe crossing. Prior to establishment of the Park, farming activities would have had more adverse impacts to streams that conditions that currently exist in the Park.	The trail would not directly impact streams in the Park. Construction activities often temporarily cause erosion and potential sedimentation. Sediment and erosion control measures would be implemented to prevent sedimentation to streams in the area. The parking lot would fill an ephemeral storm water drainage for construction. However this water is not under federal jurisdiction, and would not require permitting or mitigation from impacts. Design features of the parking lot would provide the storm water function provided by the ephemeral stream.	There would be no cumulative impacts to streams in the Park from the proposed actions. Design of the trail and parking lot would provide features for storm water discharge into either existing storm water drains, or into natural areas currently used as part of storm water discharge.

Impact Topic	Impacts from Past and Present Activities	Impacts from Proposed Actions (Trail Alternatives 4 and 5; Parking Lot Alternatives A, B, and D)	Cumulative Impacts from Proposed Action (Trail Alternatives 4 and 5; Parking Lot Alternatives A, B, and D)
Wildlife	Many wildlife species that inhabit rural areas of Georgia exist within the Park. Due to its natural undisturbed setting and large size (2880 acres) the Park provides suitable habitat to wildlife no longer present in other areas of Atlanta due to growth and development.	The trail would not impact important habitat for wildlife species in the Park. The trail would be constructed in a previously disturbed area. The adjacent wooded areas provide better and more suitable wildlife habitat. The parking lot may displace some wildlife species, but there is ample, adequate habitat adjacent to the parking lot area and throughout the Park. The areas to be converted to trail and parking lot represent a minute fraction of the total acreage within the Park.	Cumulative impacts to wildlife would be negligible. Any wildlife impacted by the trail or parking lot construction would find adequate, abundant habitat in adjoining areas. The trail and parking lot would be constructed in areas frequented by visitors, and therefore would not adversely impact wildlife's ability to adjust to the improvements.

7. Consultation and Coordination

7.1 List of Agencies and Organizations

Riana Ventura Bishop – Kennesaw Mountain National Battlefield Park
Lloyd Morris - Kennesaw Mountain National Battlefield Park
Brad Bennett - Kennesaw Mountain National Battlefield Park
Dan Brown - Kennesaw Mountain National Battlefield Park
Anita Barnett – Southeast Regional Office, National Park Service
Dr. Bennie Keel – Southeast Archaeological Center, National Park Service
Robin Goodloe – US Fish and Wildlife Service
Richard Clous – Historic Preservation Division, Georgia Department of Natural Resources
Katrina Morris – Georgia Department of Natural Resources, Wildlife Resource Division
James Hudgins – Cobb County Department of Transportation
Jane Strickland – Cobb County Department of Transportation
Michael Wright – Cobb County Department of Transportation

7.2 Preparers

Josh Earhart, Senior NEPA Specialist, Edwards-Pitman Environmental, Inc.
Jill Baur, NEPA Specialist, Edwards-Pitman Environmental, Inc.

7.3 List of Recipients

(EA to be distributed after approval of the document)