
ENVIRONMENTAL ASSESSMENT



*Relocation of Battlefield Park Tour Road
and Parking Area at Fort Morton Interpretive Site
and other Park Road Rehabilitations*

PETERSBURG NATIONAL BATTLEFIELD



National Park Service

*Prepared in cooperation with the
U.S. Department of Transportation
Federal Highway Administration
Eastern Federal Lands Highway Division*

August 2007

Prepared pursuant to the Council on Environmental Quality's regulations for implementing the National Environmental Policy Act (43 CFR 1500), 42 U.S.C. 4332(2)(C), and National Park Service Director's Order #12: Conservation Planning, Environmental Impact Analysis, and Decision Making (May 2001) (DO-12).

ABSTRACT

At Petersburg National Battlefield in the City of Petersburg, Virginia, the National Park Service (NPS) proposes to relocate a portion of the Battlefield Park Tour Road (NPS Route 500) and the parking area at Fort Morton interpretive site out of the viewshed between The Crater and Fort Morton. The action is needed in order to afford the visiting public an uninterrupted experience of the historic battle and engagement that took place here during the Civil War and restore the historic vista surrounding The Crater and its view toward Fort Morton. The action also addresses improvement to road conditions on other roads in the Battlefield and pedestrian trail improvements. This Environmental Assessment (EA) prepared in cooperation with the Federal Highway Administration, Eastern Federal Lands Highway Division, examines in detail the No Build Alternative and two Build Alternatives to determine the effect on the human environment.

Three Alternatives are considered in the EA. In the No Build Alternative, the Battlefield Park Tour Road would not change the current roadway conditions and the road would continue to divide the historic battlefield. The Build Alternatives are for relocating a portion of Battlefield Park Tour Road and the parking area at Fort Morton interpretive site. Also included in the Build Alternatives are minor rehabilitations to various roadways, miscellaneous pavement marking repairs, and pedestrian trail constructions.

The No Build Alternative would have no impact on vegetation or wildlife and wildlife habitat within the park. No archeological resources or historic resources would be disturbed or lost under the No Build Alternative because there would be no ground disturbing or construction activities. However the view of the historic battlefield between The Crater and Fort Morton would continue to be impeded by Park Tour Road and the Fort Morton parking area. Roadway deficiencies in other areas of the park would not be corrected, thus minor adverse impacts to visitor use and experience and visitor conflicts and safety would occur as roadway conditions continued to deteriorate. No impairment to any park resource or value would occur with the No Build Alternative.

The Preferred Alternative or Alternative 1 provides the opportunity for enhanced experience with an improved viewshed and roadway conditions. Alternative 1 would have negligible long-term impacts to vegetation and wildlife habitat due to the removal of trees within the project area. The tree removal would be minimized to only those necessary to complete the project. Alternative 1 would have minor short-term adverse visitor use impacts during the relocation of the walking trail. Alternative 1 is not anticipated to affect the park's archaeological and historic resources, nor impair the integrity and interpretive qualities of the sensitive sites. Temporary impacts to visitor use and experience would occur during construction at the proposed sites. No impairment to park resources or values would occur under Alternative 1.

Alternative 2 provides the opportunity for enhanced experience with an improved viewshed and roadway conditions. Alternative 2 would have minor long-term impacts to vegetation and wildlife habitat due to the removal of trees within the project area. The tree removal would be limited to the trees necessary to complete the project, and it would require more than the amount for Alternative 1. Alternative 2 is not anticipated to affect the park's archaeological and historic resources, nor impair the integrity and interpretive qualities of the sensitive sites. Temporary impacts to visitor use and experience would occur during construction at the proposed sites. No

impairment to any park resource or value would occur under Alternative 2.

Public Comment

This environmental assessment will be on public review from August 20, 2007 through September 21, 2007. If you wish to comment on the environmental assessment, you may mail comments to the name and address below. Before including your address, phone number, e-mail address, or other personal identifying information in your comment, you should be aware that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

Superintendent
Petersburg National Battlefield
1539 Hickory Hill Road
Petersburg, Virginia 23803

An electronic version of this document can be found on the National Park Services Planning Environment and Public Comment (PEPC) website at <http://parkplanning.nps.gov>. This site provides access to current plans, environmental impact analyses, and related documents on public review. Users of the site are encouraged to submit comments on this document while it is available for public review. This document is located under the Northeast Region, Petersburg National Battlefield.

TABLE OF CONTENTS

1.	Introduction/ Purpose & Need	1
1.1	Introduction.....	1
1.2	Purpose and Need for Proposed Action.....	1
1.3	Significance of the Park.....	5
1.4	Related Projects and Plans.....	7
1.5	Scoping.....	9
1.6	Impact Topics.....	9
2.	Description of Alternatives	15
2.1	No Build Alternative.....	15
2.2	Build Alternatives.....	15
2.3	Alternatives Considered But Dismissed.....	19
2.4	Environmentally Preferred Alternative.....	19
3.	Affected Environment and Environmental Consequences	20
3.1	Viewsheds.....	23
3.2	Battlefield Landscape.....	26
3.3	Archeological Resources.....	30
3.4	Vegetation.....	32
3.5	Wildlife and Wildlife Habitat.....	36
3.6	Visitor Use and Experience.....	39
3.7	Conclusions.....	42
4.	Public Involvement and Coordination	45
4.1	Permits/Coordination.....	45
4.2	Environmental Commitments.....	47
4.3	Public Notice/Public Scoping.....	47
4.4	List of Preparers/Reviewers.....	48
5.	References	49
	Appendix A - Documentation of Interagency Correspondence	50

1 INTRODUCTION/PURPOSE AND NEED

1.1 INTRODUCTION

In 1969, the United States Congress passed the National Environmental Policy Act (NEPA) (42 U.S.C. 4321 et seq.) to establish a national policy on the environment. NEPA also established the Council on Environmental Quality (CEQ) as an agency of the Executive Office of the President. In enacting NEPA, Congress recognized that nearly all federal activities affect the environment in some way. Section 102 of NEPA mandates that before federal agencies make decisions, they must consider the effects of their actions on the quality of the human environment.

The CEQ regulations developed the Environmental Assessment (EA) to be used when there is not enough information to decide whether a proposed action may have significant impacts. If an EA concludes that a federal action will result in significant impacts, an EIS must be prepared. Otherwise, it results in a Finding of No Significant Impact (FONSI). Preparation of an EA is also used to aid in an agency's compliance with Section 102(2)E of NEPA, which requires an agency to "study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources."

The EA is being jointly prepared to comply with NEPA for the proposed federal action by Federal Highway Administration and National Park Service. The Department of the Interior produced its NEPA regulations as Part 516 of its departmental manual (DM), and the National Park Service (NPS) implementing regulations for NEPA are contained in Director's Order #12, *Conservation Planning, Environmental Impact Analysis, and Decision-Making*, and accompanying Handbook (May 2001). Director's Order 12 and Handbook never conflict with the CEQ regulations, although the NPS has added some requirements that go beyond those imposed by CEQ to help facilitate the requirements of the law that established the NPS (the Organic Act) and other laws and policies that guide our actions. This document has been completed under the guidance of the DO-12 Handbook. The Federal Highway Administration's NEPA regulations are part of 23 CFR 771. The FHWA Tech Advisory T6640.8A was written in 1987 to provide guidance on environmental documents.

1.2 PURPOSE AND NEED FOR THE PROPOSED ACTION

Purpose of the Proposed Action

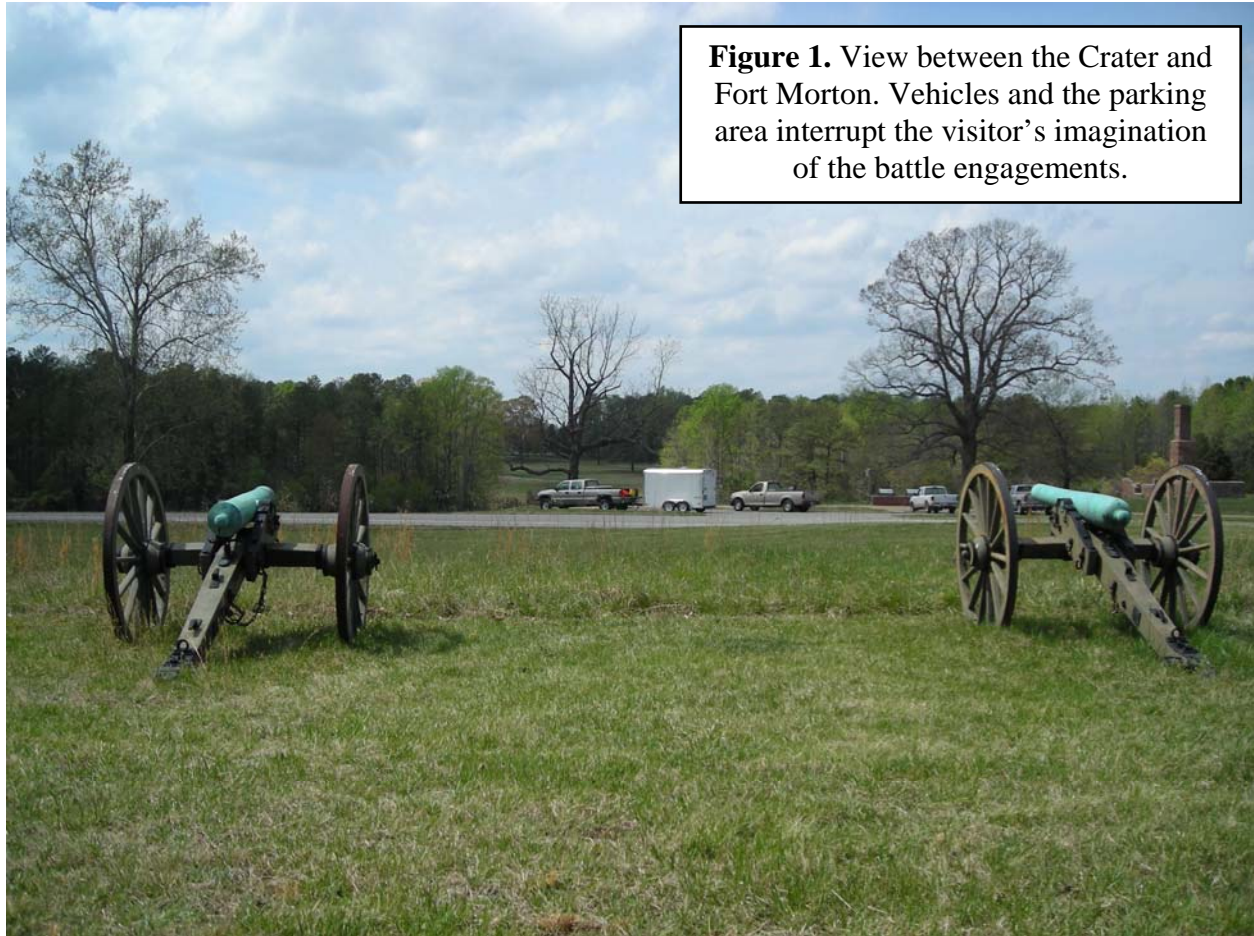
The purpose of the project is to restore the historic battlefield viewshed between the Crater and Fort Morton, to improve road conditions of the Horse Trail Spur Road and Loop, to provide visitor access at the Hickory Hill Road Visitor Access Roads and Trailhead Parking Lot, (on the site of the former Hickory Hill Mobile Home Park), improve bridge conditions of the Park Tour Road over the Norfolk - Southern Railroad and State Route 36, and improve pavement markings on other sections of the Park Tour Road. The project purpose includes improvements to pedestrian accommodations from Hickory Hill Road Visitor Trailhead Parking Lot to the Park Trail System.

Need for the Proposed Action

The most famous Civil War battle feature and Park visitor attraction at Petersburg National Battlefield is the “Crater” and the battle events that took place between this Confederate position, also known as Elliott’s Salient, and the occupying Union Forces at Fort Morton. Both sites are located on knolls with a large ravine and open field between them. A very popular battle scene interpretation by NPS interpretive rangers tells the story of the attempt by Union forces to breach the Confederate stronghold in Lee’s line at the Crater by tunneling under the Confederates and detonating a massive explosion. Included in the battle description is the bombardment between the Confederate Forces at the Crater and Union Forces occupying Fort Morton.

The portion of the Battlefield Park Tour Road and parking area located near the Fort Morton interpretive site are currently impeding the view of the historic battlefield between The Crater and Fort Morton. Often times, the Park visitor’s imagination of the battle scene, as told by the NPS rangers, is disrupted by vehicles traveling on the Battlefield Park Tour Road and parking at the Fort Morton interpretive site parking lot, both of which are in direct view between The Crater and Fort Morton (Figure 1). The elimination of the existing parking lot and a section of the park Tour Road will enhance the integrity of the battlefield landscape by removing modern intrusions and allowing the visitor a better understanding of the battle and the siege. The Crater battlefield is one of the most visited locations in the park and restoring this vista, part of which has already occurred in the first phase of highway improvements, will enhance the historic scene of the battle by more accurately reflecting the 1864-65 cultural landscape.

Additionally, visitors used to be able to access the park trail system from a parking lot on Hickory Hill Road within the boundary of Fort Lee. These visitors were generally local, recreational users of the park trail system, rather than visitors who make contact through the Visitor Center and the Park Tour Road. After the events of September 11, 2001, Fort Lee imposed stricter security measures which denied casual users access to the parking lot. The park wants to provide access to these users by rehabilitating the Horse Trailer Spur Road and Loop and the former Hickory Hill Mobile Park access roads and by turning the site of the former Hickory Hill Mobile Home Park (acquired by the park in 2001) into a visitor access trailhead. The service roads are deteriorating with signs of severe distress, patches, and rutting. The project would also include a new pedestrian trail from the new Hickory Hill Road Visitor Access Trailhead Parking Lot connecting to the park’s existing trail system (Figure 2). The Park Tour Road Bridges over Norfolk - Southern Railroad and State Route 36 need maintenance and repairs.



Project Objectives

The following objectives should be met in order for the project to be successful:

- Restore the historic battlefield viewshed and improve visitor experience at the Crater and Fort Morton
- Improve the condition of the Horse Trail Spur Road and Loop, the Hickory Hill Road access roads and Visitor Trailhead parking lot, the Park Tour Road Bridges over the Norfolk - Southern Railroad and State Route 36, and pavement markings on other sections of the Park Tour Road.
- Improve pedestrian accommodations from Hickory Hill Road Trailhead Visitor Parking Lot to the park's existing trail system.



Figure 2

Location of the Park

This map illustrates the Petersburg National Battlefield, highlighting various tour routes and historical features. Key elements include:

- Tour Routes:**
 - Blue line:** Battlefield and Siege Line tour routes.
 - Red line:** Defense Line tour route (optional).
 - Gray line:** Other historic fortifications.
 - Black line:** Historic railroad.
- Landmarks and Fortifications:**
 - Petersburg National Battlefield Visitor Center:** Located near the top center.
 - Fort Lee Main Gate:** A prominent feature in the upper right.
 - Fort Lee Military Reservation:** Situated to the east of the main battlefield area.
 - Fort Lee Cemetery:** Located near the bottom center.
 - Fort Lee Main Gate:** A prominent feature in the upper right.
 - Fort Lee Military Reservation:** Situated to the east of the main battlefield area.
 - Fort Lee Cemetery:** Located near the bottom center.
- Geographical Features:**
 - Appomattox River:** Flows through the northern part of the battlefield.
 - James River:** Flows through the eastern part of the battlefield.
- Other Features:**
 - Gray lines:** Indicate other historic fortifications, including Confederate and Federal lines.
 - Black lines:** Represent historic railroads.

The map also includes a legend in the bottom right corner, providing symbols for tour stops, battle lines, and fortifications. A scale bar at the bottom left indicates distances in miles and kilometers.



Description of the Park

In 1926, President Calvin Coolidge authorized the establishment of Petersburg National Military Park (now Petersburg National Battlefield) for the purpose of commemorating the campaign, siege, and defense of the City of Petersburg during the Civil War. Additionally, it provided preservation of the historical earthworks, forts, and other shelters and defenses used by the Union and Confederate Armies during the ten-month siege of the city. Initially, the battlefield was managed by the War Department, but it was transferred to the National Park Service (NPS) in 1933. There have been several major additions to the National Battlefield since the NPS took over management, including the Crater Battlefield areas in 1936, the City Point Unit in 1978, and the Five Forks Unit in 1989. The Civilian Conservation Corps completed many of the early visitor-oriented improvements in the 1930s including a road that ran north-south to the east of Fort Morton and linked the park road to Route 460. Later, the “Mission 66 Development Program” added improvements like the driving Park Tour road, the visitor center, and the bridge over Virginia Route 36. Currently, Petersburg National Battlefield covers 2659 acres divided among four units. The units are: Grant’s Headquarters at City Point, the Eastern Front Battlefield, the Western Front Battlefield, and the Five Forks Battlefield. The proposed alternatives discussed in this EA are all located within the Eastern Front Battlefield.

During the Civil War, the Crater was the site of a major battle and spectacular mine explosion that occurred on July 30, 1864. In late June, the Union forces had begun digging a tunnel that was ultimately to extend beneath the Confederate line at Elliot’s Salient (the Crater). The Union plan was to explode a large charge of powder and blow a gap in the defenses, through which their forces were to attack while the Confederates were still dazed and confused by the shock of the explosion. When complete on July 23, the tunnel was 586 feet in length. Rumors of the tunnel reached the Confederates soon after the Union mining operations began, and on July 1, countermines were started in an effort to locate the Union tunnel. About 4:45 am on July 30, a tremendous explosion shook the earth east of the city: the mine packed with 8,000 pounds of powder had exploded, making a crater nearly 170 feet in length, 60 feet wide and about 30 feet deep. Two hundred and seventy-eight Confederates were casualties of the explosion. By 2 pm, after three counter-attacks by Confederate troops, the broken line was restored. Union casualties were estimated at slightly more than 4,000, which included 2,000 captured, while the Confederate casualties were estimated at around 1,500.

Prior to the acquisition of the Crater property by the National Park Service in July of 1936, the Crater area was maintained as a private historical attraction and later as a golf course. The Federal lines opposing the Confederate line at Elliot’s Salient, including Union Fort Morton, were located on the farm of William Taylor. After the war, Taylor somehow managed to flatten the imposing earthworks. In recent years, geophysical exploration and archeological testing have revealed that the lower levels of the fort and associated trenches still exist below the present surface.

After the NPS took over the Crater property, the agency developed various alternatives for automobile circulation through the battlefield that were part of the larger Park Tour road system serving the entire park. The first of these was an improvement of the original driveway by the Civilian Conservation Corps in 1939. During the 1940’s various plans to link the Crater property to the Park Tour Road were developed - only to be limited by the lack of funds due to changing

national priorities resulting from the Second World War. Until the 1960's, automobile and pedestrian circulation at the Crater remained essentially as they had been since the late 1930's. During the 1960's and 1970's, the National Park Service developed the network of roads and trails between Fort Morton and the Crater property that serves visitors today.

The present Park Tour Road does not fully support recent park goals as laid out in the 2004 General Management Plan {GMP}. Its placement at the present location was driven by a desire to present the interpretation of the Crater chronologically – to introduce visitors first to the Union mine and its reconstructed entrance, and then to its effects, the explosion and destruction of Elliot's Salient and the resultant "Crater". While the interpretive sequence is rational, it does intrude on the visitor's appreciation of the battlefield landscape. The modern intrusion became apparent in 1978 when the Youth Conservation Corps reestablished a portion of the historic vista between the site of Fort Morton and the former Elliot's Salient. When the overgrowth was eventually cleared from the stream valley of Poor Creek, the parking lots at the Crater and near the Taylor House ruins and Fort Morton (Tour Stop 7) were found to loom in the middle ground of this important view. The Crater parking lot was removed and parking re-sited in 2001 but the tour road and Taylor House parking lot remain.

Project Background

The Park Tour Road (Route 500) is a one-way, one-lane roadway of 11-foot lane width with a contiguous eight-foot wide bike lane and two-foot aggregate topsoil shoulders. The posted speed limit is 25 MPH with a current Average Daily Traffic of 115. The current Tour Stop 7 parking lot is in fair condition, with an area of 8,200 square feet and containing 10 car and three bus spaces.

The Horse Trailer Spur Road is 850 feet in length. The Horse Trailer Spur Loop is 2,700 feet in length. The Hickory Hill Road Trailhead Visitor Access Road is 370 feet in length. All are currently in poor condition. The proposed Hickory Hill Road Visitor Trailhead Access Parking Lot is approximately 0.5 acre and will be built on the highly disturbed site of a former mobile home park.

The Park Tour Road over Norfolk - Southern Railroad is a prestressed concrete bridge 100 feet in length with a curb-to-curb width of 20 feet. The Park Tour Road over State Route 36 is a prestressed concrete bridge 171 feet in length with a curb-to-curb width of 29 feet.

1.4 RELATED PROJECTS AND PLANS

Roadway Rehabilitation/Construction on Park Tour Road

The National Park Service currently has plans to begin construction on the northern section of Park Tour Road beginning in late 2007. This project will include:

- Asphalt rehabilitation of 2.4 miles of Park Tour Road from the Norfolk - Southern Railroad Bridge to State Route 36 Bridge, with various areas of full-depth spot reconstruction; resurfacing of parking areas; drainage improvements/erosion control where needed; removal of trees causing roadway cracking; replacement of all bollards

and pavement markings.

- Construction of a new entrance road to the maintenance area, 50 ft north of existing driveway. Will require relocation of a culvert and removal of old driveway, which will be revegetated. New parking will be added in the grassy area between Building 9 and the entrance road.
- Reconstruction of headwall and riprap basin in Poor Creek on the Park Tour Road between Park Tour Stops 7 and 8 due to current failure.
- Stream stabilization and underdrain system installation for historic berm on Taylor Creek due to severe bank erosion.

The General Management Plan for the Park

The NPS manages all park units in accordance with the mandate of its 1916 Organic Act and other legislation to conserve resources unimpaired for the enjoyment of future generations. To help implement this mandate, the National Parks and Recreation Act of 1978 (Public Law 95-625) and NPS Management Policies (NPS 2001) require each National Park to have a broad-scale general management plan (GMP) to address problems and opportunities.

The primary goal of the 2004 General Management Plan is to employ the cultural landscape as the mechanism by which the Civil War stories are told. A boundary expansion of 7,238 acres preserves nationally significant battlefields, protects existing park resources and creates opportunities for visitors to access these significant Civil War landscapes and resources. The interpretive program is dynamic and interactive, conveying a more comprehensive Civil War story by making full use of battlefield resources. The visitor experience is much more compelling, as they are immersed in the landscape upon which battles were fought. Efforts by which NPS and others are protecting battlefields and other Civil War-related resources are emphasized. Visitors can begin and be fully oriented at any of the five park units. At each unit, a full and comprehensive interpretive program is available, with each unit's story explained within the campaign. New programs and expanded facilities are developed at Grant's Headquarters at City Point, the Home Front in Old Town Petersburg, Poplar Grove National Cemetery and Five Forks Battlefield. Partnerships with localities and organizations that promote battlefield preservation and further Civil War education and interpretation are pursued. Both action alternatives support this plan by restoring the historical viewshed of the Crater Battlefield site, thus enhancing the cultural landscape and improving the visitor experience.

Fire Management Plan

Management policies require that all NPS areas, with vegetation capable of sustaining fire, develop a Fire Management Plan (DOI 1998). The plan outlines actions that will suppress undesirable fires, effectively control prescribed fires, protect and manage resources with wildland fire, protect firefighters and the public, and protect property. The primary goal of this plan is to protect the cultural landscape and resources by suppressing all unscheduled ignitions, ensuring smoke production does not violate state and federal standards, minimizing smoke impacts to park neighbors, assessing and reducing hazardous fuels that pose potential threats to

resources to be protected, and cooperating with partners and other interested parties on fire management issues.

1.5 SCOPING

Scoping this project began during the development of the park GMP, beginning in 2001. Internal scoping and public scoping identified the need to rehabilitate battlefield landscapes. The need for additional access for local recreational users was also identified. The first Phase of the battlefield rehabilitation was completed in 2001 when modern intrusions were removed from the Crater area to improve that portion of the viewshed. Internal scoping by Petersburg National Battlefield staff, NPS Northeast region staff and FHWA staff developed the details of the specific road enhancements through meetings and field visits. The staff of the Virginia State Historic Preservation Office at the Virginia Department of Historic Resources were consulted during site visits and scoping meetings. No specific public scoping had been completed for this project besides the public review of the GMP.

1.6 IMPACT TOPICS

As a result of scoping, specific impact topics were developed to address potential natural, cultural, and social impacts that might result from the proposed rehabilitation and new construction. These include those identified above and address federal laws, regulations and orders, *Petersburg National Battlefield* management documents, and NPS knowledge of limited or potential impacts to resources. A brief rationale for the selection of each impact topic follows:

Impact Topics Requiring Further Analysis

Viewsheds

Part of the NPS mission, as outlined in the *NPS Management Policies 2006*, the agency works to understand, maintain, restore, and protect the inherent integrity of the natural resources, processes, systems, and values of the parks. Scenic views and visual resources are considered important characteristics that are individual to each park unit. The Fort Morton interpretive site parking area and the Park Tour Road are located in the historically significant viewshed between The Crater and Fort Morton. The associated construction activities would have a short-term, adverse impact on the visual resources of the Park during the construction period because of the addition of construction equipment and personnel. The proposed improvements would result in no long-term adverse changes to visual resources; this impact topic is central to the proposed project and will be addressed further.

Archeological Resources

The National Historic Preservation Act of 1966, NEPA, the 1916 NPS Organic Act, NPS Management Policies 2006, and NPS-28 require Federal agencies to consider the effects of their proposed actions on cultural resources. Certain important research questions about human history can only be answered by the actual physical material of cultural resources. Archeological resources have the potential to answer, in whole or in part, such research questions. An

archeological site(s) can be eligible to be listed in the National Register of Historic Places if the site(s) has yielded, or may be likely to yield, information important in prehistory or history. An archeological site(s) can be nominated to the National Register in one of three historic contexts or levels of significance: local, state, or national (see National Register Bulletin #15, How to Apply the National Register Criteria for Evaluation). For purposes of analyzing impacts to archeological resources, thresholds of change for the intensity of an impact are based upon the potential of the site(s) to yield information important in prehistory or history, as well as the probable historic context of the affected site(s). The construction of either build alternative and other ground-disturbing aspects of the project may impact archeological resources; therefore this impact topic requires further analysis.

Cultural Landscapes

The National Historic Preservation Act of 1966, NEPA, the 1916 NPS Organic Act, NPS Management Policies 2006, and NPS-28 require Federal agencies to consider the effects of their proposed actions on cultural resources. Cultural landscapes are the result of the long interaction between people and the land, the influence of human beliefs and actions over time upon the natural landscape. Shaped through time by historical land-use and management practices, as well as politics and property laws, levels of technology, and economic conditions, cultural landscapes provide a living record of an area's past, and a visual chronicle of its history. The dynamic nature of modern human life, however, contributes to the continual reshaping of cultural landscapes; making them a good source of information about specific times and places, but at the same time rendering their long-term preservation a challenge.

In order for a cultural landscape to be listed in the National Register, it must possess significance (the meaning or value ascribed to the landscape) and have integrity of those features necessary to convey its significance. The character defining features of a cultural landscape include spatial organization and land patterns; topography; vegetation; circulation patterns; water features; and structures/buildings, site furnishings and objects (see The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes, 1996). The construction of either build alternative may impact the cultural landscape; therefore this impact topic requires further analysis. Because of the specific type of cultural landscape of the project area, the impact category will be called Battlefield Landscape.

Vegetation

NEPA requires an examination of impacts on the components of affected ecosystems. NPS policy requires the protection of the natural abundance and diversity of all the Park's naturally occurring communities. Removal of trees and addition of fill material would be required for the creation of the new road and parking area; therefore, the impacts to vegetation will be addressed for each alternative.

Wildlife and Wildlife Habitat

The NPS Organic Act, which directs parks to conserve wildlife unimpaired for future generations, is interpreted by the agency to mean that native animal life should be protected and perpetuated as part of the Park's natural ecosystem. Removal of vegetation and the construction

of a build alternative could affect the Park's wildlife; therefore this impact topic will be addressed further.

Visitor Use and Experience

NPS Management Policies 2006 state that the enjoyment of park resources and values by the people of the United States is part of the fundamental purpose of all parks that the NPS is committed to providing appropriate, high-quality opportunities for visitors to enjoy the parks. Disruptions to traffic patterns and the walking trail during the construction activities could occur. The duration of these impacts are anticipated to be two construction seasons or less. Since the proposed action has the potential to impact visitor use and operations during construction, this topic will be discussed further.

Impact Topics Dismissed from Further Analysis

Historic and Prehistoric Structures/Buildings

The National Historic Preservation Act of 1966, NEPA, the 1916 NPS Organic Act, NPS Management Policies 2006, and NPS-28 require Federal agencies to consider the effects of their proposed actions on cultural resources. In order for a structure or building to be listed in the National Register of Historic Places, it must be associated with an important historic context, i.e. possess significance – the meaning or value ascribed to the structure or building, and have integrity of those features necessary to convey its significance, i.e. location, design, setting, workmanship, materials, feeling, and association (see National Register Bulletin #15, How to Apply the National Register Criteria for Evaluation). No Register eligible structures are in the project area, and impact topic does not require further analysis.

Museum Collections

The National Historic Preservation Act of 1966, NEPA, the 1916 NPS Organic Act, NPS Management Policies 2006, and NPS-28 require Federal agencies to consider the effects of their proposed actions on cultural resources. Museum collections (historic artifacts, natural specimens, and archival and manuscript material) may be threatened by fire, theft, vandalism, natural disasters, and careless acts. The preservation of museum collections is an ongoing process of preventative conservation, supplemented by conservation treatment when necessary. The primary goal is preservation of artifacts in as stable condition as possible to prevent damage and minimize deterioration. No already-curated museum collections are present in the project area; therefore this impact topic does not require further discussion. There are likely to be artifacts remaining underneath the new roads, parking areas and trails where they will remain undisturbed.

Wetlands

Executive Order 11990 (Protection of Wetlands) requires an examination of impacts to wetlands. National Wetland Inventory Maps identified wetlands within the Park; however they showed no wetlands in the project area. Absence was confirmed through discussion with Park environmental staff. Therefore the impact topic does not require further discussion and was

removed from further consideration.

Environmental Justice

Executive Order 12898: Federal Actions to Address Environmental Justice in Minority and Low Income Populations forbids Federal agencies from disproportionately affecting minority and/or low-income communities. The project area and related project impacts will be within the boundaries of the Park, and no adjacent property owners would be directly impacted. Any indirect construction related impacts would be short-term and negligible. Any impacts of the project would affect the park visitors equally. The impacts would not disproportionately affect low-income or minority individuals or populations. Therefore environmental justice does not require further discussion.

Special Status Species

Section 7 of the Endangered Species Act directs all Federal agencies to use their authority in furtherance of the purposes of the Act by carrying out programs for the conservation of threatened and endangered species. Federal agencies are required to consult with the U.S. Fish and Wildlife Service (FWS) to ensure that any actions authorized, funded, and/or carried out by the agency do not jeopardize the continued existence of any listed species or critical habitat. In cooperation with the NPS, the Eastern Federal Lands Highway Division initiated correspondence with the FWS on August 8, 2006 per Section 7 of the Endangered Species Act (ESA). The FWS replied in a phone conversation that based on the proposed plans to rehabilitate and reconstruct a site within the Park, the project is “not likely to adversely affect” federally listed or proposed species or adversely modify critical habitat, therefore this topic was dismissed from further analysis.

Floodplains

Development within floodplains and floodways is regulated by federal and state laws to reduce the risk of property damage and loss of life due to flooding, as well as to preserve the natural benefits floodplain areas have on the environment. Executive Order 11988: Floodplain Management requires all federal agencies to avoid construction within 100-year floodplains unless no other practical alternative exists. Through the consultation of Federal Emergency Management Agency maps and site visits to the project, it was determined that there were no floodplains within the project area, therefore floodplain impacts were dismissed from further analysis.

Socioeconomic Environment

Socioeconomic impacts have the potential to create a change to the demographics, housing, employment, and economy of an area. The proposed action would neither change local and regional land use nor appreciably impact local businesses or other agencies. The proposed alternative would create negligible beneficial short-term impacts on the local economy from construction employees using local commercial establishments; however the long-term effects would be negligible. Therefore this topic was dismissed from further analysis.

Water Quality/Hydrology

NPS Management Policies 2006 require protection of water quality consistent with the Clean Water Act. The proposed action may create negligible temporary impacts by the removal of vegetation and exposure of bare soil during construction. The change in total impervious surfaces is minimal due to the seeding of the original alignment and has a negligible long term impact. All potential Best Management Practices (BMPs), erosion control measures, and activities as necessary to prevent degradation of water quality would be used. Therefore this impact topic does not require further analysis.

Air Quality

The 1963 Clean Air Act, as amended (42 USC 7401 et seq.), requires Federal land managers to protect park air quality, while the 1988 *NPS Management Policies* address the need to analyze air quality during park planning. The act requires that air quality not exceed National Ambient Air Quality Standards for carbon monoxide, suspended particulate matter, nitrogen oxides, ozone and lead. Section 118 of the act requires the park to meet all federal, state, and local air quality standards. The park is located in a highly industrialized area with high air pollution, primarily sulfates, nitrates, chlorides, and iron. The Virginia Department of Air Pollution Control classifies the park as a non-attainment area for ozone, and as a Class II area for all other major pollutants. Industrial plants in nearby Hopewell that manufacture and use chemicals in industrial processing are a major source of pollutants.

The construction of a build alternative would have a short-term negligible adverse impact because of hauling material, operating equipment, and other construction activities that could result in temporarily increased vehicle exhaust and emissions. However, hydrocarbons, nitrates, and sulfur dioxide emissions, as well as any airborne particulates created by fugitive dust plumes, would be rapidly dissipated by air drainage because air stagnation is rare at the project site. After construction is completed, the air quality would return to pre-construction conditions. No long term adverse impacts are anticipated, as implementation of the project would not increase visitation to the park. Therefore, air quality was dismissed as an impact topic.

Sound Environment/Soundscape

The *NPS Management Policies 2006* state that the NPS will strive to protect the natural quiet and natural sounds associated with the physical and biological resources of the park. The soundscape of the park is comprised of the natural sound conditions that exist in the absence of any human-produced noises. This is the basis for determining the "affected environment" and impacts on the park soundscape. The proposed action is not anticipated to produce inappropriate noise levels, or impact visitor experience for which the park was established and planned. Any impacts to the park's soundscape would be temporary and would occur only during construction periods. Therefore this impact topic was dismissed from further analysis.

Geology and Soils

The park is situated in the piedmont physiographic province of the eastern United States. Generally, Petersburg National Battlefield occupies a gently rolling countryside. The

predominant soil type in the Main Unit is Emporia and Norfolk sandy loam. Most of the land is well drained. Average frost penetration is three inches. The soils are stable and capable of supporting roadways, facilities, historical earthworks, and trails. Short-term construction-related impacts of soil erosion and potential soil loss would be minimized through the application of best management practices for controlling drainage and erosion at the site. Since the new roadway will be constructed entirely on fill material, no permanent adverse impacts to geology and soils will occur. Therefore, this topic was dismissed from further analysis.

Ethnographic Resources

Ethnographic resources are objects and places, including sites, structures, landscapes, and natural resources, with traditional cultural meaning and value to associated peoples. Research and consultation with associated people identifies and explains the places and things they find culturally meaningful. Ethnographic resources eligible for the National Register of Historic Places are called traditional cultural properties. There are no known ethnographic resources within the Park that would be affected by the proposed action based on current information at the park; therefore this topic was dismissed from further analysis.

Park Operations

Routine maintenance activities for the Park include maintenance of the trails, mowing, and possibly prescribed fires. Most construction of the new road can be done outside of existing traffic, and construction traffic will not be required to use the Park Tour Road until after the realignment is constructed and the obliteration of the relocated portion of the Park Tour Road begins. Because park operations would be negligibly affected by road reconstruction and improvement activities, this topic was dismissed from further analysis.

Prime and Unique Farmlands

Prime and unique farmlands are protected under the Farmland Protection Policy Act (7 U.S.C. 4201 et seq.) which states that Federal agency programs must assess the effects of their actions on farmland soils classified by the U.S. Department of Agriculture's (USDA) Natural Resource Conservation Service (NRCS) as prime or unique. Prime farmland is defined in the Act as "land that has the best combination of physical and chemical characteristics for producing food, feed, fiber, forage, oilseed, and other agricultural crops with minimum inputs of fuel, fertilizer, pesticides, and labor, and without intolerable soil erosion," while unique farmlands are lands "other than prime farmland that is used for the production of specific high-value food and fiber crops." None of the mapped soil types in the project area are classified as prime or unique farmlands; therefore this impact topic was dismissed from further analysis.

Visitor Conflicts and Safety

The *NPS Management Policies 2006* state that the NPS will seek to provide a safe and healthful environment for visitors and employees. Since construction will take place away from the current Park Tour Road, negligible effects to visitor conflicts and safety are expected. Thus, this topic was dismissed from further analysis.

2 DESCRIPTION OF ALTERNATIVES

The following are descriptions of the proposed alternatives to improve the viewshed between the Crater and Fort Morton; improving the roadway condition of the Horse Trail Spur Road and Loop, the Hickory Hill Road access roads and Visitor Trailhead Parking Area; improve the bridge conditions of the Park Tour Road over the Norfolk - Southern Railroad and State Route 36; improve pedestrian accommodations from Hickory Hill Road Trailhead Visitor Parking Lot to the park's existing trail system; and pavement markings on other sections of the Park Tour Road within the Petersburg National Battlefield in Prince George County, Virginia.

2.1 NO BUILD ALTERNATIVE

The No Build Alternative would retain the existing Park Tour Road in its current location where it bisects the land between the Union and Confederate lines in the vicinity of the Crater and Fort Morton. Additionally, the No Build Alternative would continue the current visitor access situation on Hickory Hill Road. Recreational users formerly gained access to foot and equestrian trails on this side of the park from a parking lot located on Fort Lee. After 9-11-2001, access between the fort and the park was curtailed due to security concerns. Equestrians are now using deteriorating driveways that once served a former trailer park to gain access to the park trail system. Currently there is no parking lot dedicated to foot trail users on this side of the park.

2.2 BUILD ALTERNATIVES

There are two build alternatives being considered for the road relocation (see Figure 4), each of which follows a slightly different alignment. Both involve relocating a portion of the Park Tour Road and the parking area at Fort Morton out of the historic battlefield viewshed to offer the visitor to the park an uninterrupted experience, but each follows a slightly different alignment. The proposed improvements for both alternatives consist of four construction activities: rehabilitation of pavement, obliteration of pavement, and new construction. Culvert work would also be included.

Both alternatives involve relocation of the Fort Morton interpretive site parking area (Tour Stop 7) along the realigned road at a location out of the viewshed. The 1,800-foot bypassed portion of Park Tour Road and the 8,200 square foot old Fort Morton parking area would be obliterated (1.6 acres total) and contoured to blend in with the existing terrain. The relocated parking lot would have a similar geometric configuration to the existing parking area for the Crater interpretive site (Park Tour Stop 8), with eight passenger vehicle spaces, two handicap spaces, two bus parking spaces, and an approximate area of 6,400 square feet. Both Build Alternatives provide a new Fort Morton/Stop 7 Visitor Parking Lot.

Additional Actions for Either Build Alternative

Additional actions included in either Build Alternatives would consist of rehabilitation/reconstruction of the Horse Trail Spur Road from Hickory Hill Road (Route 109) past the Park Headquarters and parking area to Horse Trail Spur Loop, the loop portion of the Horse Trail Spur Road past the Ranger Station back to Hickory Hill Road, and upgrading the former Hickory Hill Mobile Park access road and parking area into a new Hickory Hill Road Visitor Access

Road and Visitor Trailhead Parking Lot (see Figure 2). Also, minor rehabilitation to the Park Tour Road Bridges over Norfolk - Southern Railroad and State Route 36, repair of failing roadway striping and markings, and the placement of additional bike-lane symbols on Park Tour Road would occur. A pedestrian trail from Hickory Hill Road Visitor Trailhead Parking Lot connecting to the park trail system is included, as is a pedestrian trail from the new Fort Morton/Stop 7 Visitor Parking Lot to Fort Morton. Hickory Hill Road Visitor Trailhead Parking Lot is going to be used as a construction staging area for the project.

Alternative 1 (Preferred Alternative)

Alternative 1 would exit Park Tour Road near Battery XIV and then follow an abandoned Park Tour Road alignment (from a part of the road in use from the 1930s through the 1960s) for approximately 900 feet when it would then follow a new alignment for a short distance and meet up with the a portion of the Baxter Trace Road presently used as a walking trail. It would follow the historic Baxter Trace Road for approximately 500 feet until rejoining the present Park Tour Road (Route 500) just before the Norfolk - Southern overpass (see Figure 4) with a trail approximately 2450 feet long. The Tour Road roadway width would be 19 feet (11 feet for vehicle lane and eight feet for bike lane). The Park is planning on replacing the walking trail to the north and parallel to the previous trail. The total area of land needed for the new alignment would be approximately 2.3 acres, including 0.5 acres in a currently wooded area. The roadway would be constructed on fill material with minimal surface disturbance. Some trees will need to be cleared from the road sides and from the entirely new road segment, but many of these have already fallen as a result of beetle infestations and recent storms.

Alternative 2

Alternative 2 would follow the same former section of the Park Tour Road as Alternative 1, but just prior to reaching the portion of Baxter Trace Road now used as a walking trail, the road would curve sharply right and then parallel the Baxter Trace Road/walking trail, closer to Fort Morton than Alternative 1, before reconnecting with Park Tour Road. The Park Tour Road roadway width would be 19 feet (11 feet for vehicle lane and eight feet for bike lane). Paralleling the walking road would require removal of more trees than Alternative 1 but the historic Baxter Trace Road/walking trail would remain undisturbed. The total area of land needed for the new alignment would be approximately 2.2 acres, including 0.7 acres in a currently wooded area. In order to preserve underlying archeological resources, the roadway would be constructed on fill material with minimal disturbance to the ground below it. Compared to Alternative 1, this option would require more trees to be cut because Alternative 1 takes advantage of the Baxter Trace Road and Alternative 2 does not.

Mitigation Measures to the Environmental Consequences

Archeological

- A qualified archeologist would monitor the ground disturbing activities such as vegetation removal.
- Fill material would be borrowed from locations with no significant cultural resources.

Vegetation

- Replanting of vegetation on the obliterated section of the Park Tour Road and Fort Morton parking area.

Water Quality

- Best Management Practices for erosion control measures, and activities as necessary

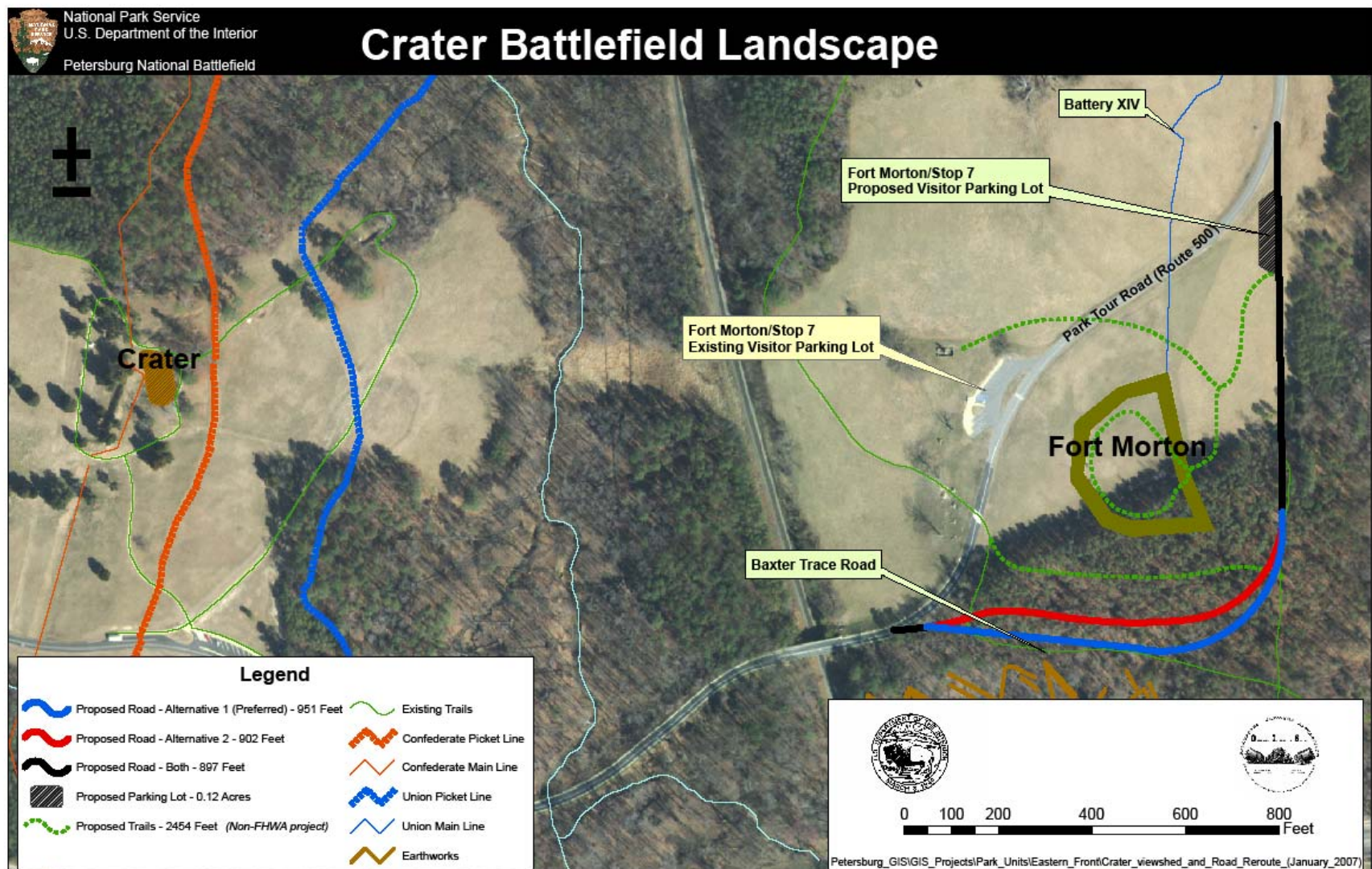


Figure 4

2.3 ALTERNATIVES CONSIDERED BUT DISMISSED

As mentioned previously, alternatives should be “reasonable.” Unreasonable alternatives should be eliminated before impact analysis begins and were not carried forward for analysis in this EA. Justification for eliminating these options from further analysis was based on factors outlined in DO-12:

- the alternative’s lack of technical feasibility;
- inability to meet the project’s purpose and need;
- duplication with other less environmentally damaging or less expensive alternatives;
- conflict with an up-to-date park plan, statement of purpose and significance, or other policy;
- severe environmental impact; or, as a secondary, supporting reason, economic infeasibility.

Most of the project is limited to existing facilities in the Battlefield; therefore there were not additional alternatives that would meet those objectives. Several configurations were studied for the relocation of Park Tour Road out of the viewshed. One option followed the same alignment as mentioned in Alternative 1, but without construction of the roadway entirely on fill material. This was dismissed due to possible adverse impacts on archaeological and cultural resources as a result of substantial ground disturbance.

2.4 ENVIRONMENTALLY PREFERRED ALTERNATIVE

The NPS is required to identify the environmentally preferred alternative in its NEPA documents for public review and comment. The NPS, in accordance with the Department of the Interior policies contained in the Departmental Manual (516 DM 4.10) and the Council on Environmental Quality’s (CEQ) *NEPA’s Forty Most Asked Questions*, defines the environmentally preferred alternative (or alternatives) as the alternative that best promotes the national environmental policy expressed in NEPA (Section 101(b) (516 DM 4.10). In their *Forty Most Asked Questions*, CEQ further clarifies the identification of the environmentally preferred alternative, stating “Ordinarily, this means the alternative that causes the least damage to the biological and physical environment; it also means the alternative which best protects, preserves, and enhances historic, cultural, and natural resources” (Q6a).

Alternative 1 is the environmentally preferred alternative because it would provide visitors with an uninterrupted experience of the historic battle and engagement and improve road conditions with minimal impacts to environmental and cultural resources. Alternative 1 addresses the viewshed issues and has a less impact on the natural environment and archeological resources than Alternative 2 because fewer trees would be removed. The No Build Alternative is not the environmentally preferred alternative because it continues to allow a moderate adverse impact to the significant battlefield landscape between the Confederate lines in the vicinity of the Crater and the Union lines around Fort Morton.

3 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

For each impact topic identified in Section 2.1, a process for impact assessment was developed based on the directives of Section 4.5(g) of the DO-12 Handbook. National park system units are directed to assess the extent of impacts on park resources as defined by the context, duration, and intensity of the effect. While measurement by quantitative means is useful, it is even more crucial for the public and decision-makers to understand the implications of those impacts in the short and long term, cumulatively, and within context, based on an understanding and interpretation by resource professionals and specialists. With interpretation, one can ascertain whether the impact intensity to a park resource is “minor” compared to “major” and what criteria were used to base that conclusion.

Methodology

To determine impacts, methodologies were identified to measure the change in park resources that would occur with the implementation of each alternative. Thresholds were established for each impact topic to help understand the severity and magnitude of changes in resource conditions, both adverse and beneficial, of the various alternatives.

Potential impacts are described in terms of type (Are the effects beneficial or adverse?), context (Are the effects site-specific, local, or even regional?), duration (Are the effects short-term, lasting during construction, or long-term, lasting permanently?), and intensity (Are the effects negligible, minor, moderate, or major?). Because definitions of intensity (negligible, minor, moderate, or major) vary by impact topic, intensity definitions are provided separately for each impact topic analyzed in this document.

Each alternative is compared to a baseline to determine the context, duration, and intensity of resource impacts. For purposes of impact analysis, the baseline is the continuation of current management (the No Build Alternative) projected over the next 10 years. In the absence of quantitative data, best professional judgment was used to determine impacts. In general, the thresholds used come from existing literature, federal and state standards, and consultation with subject matter experts and appropriate agencies.

Cumulative Impacts

The CEQ regulations (40 CFR 1508.7) require the assessment of “cumulative impacts” which are defined as:

The impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions.

In January 1997, the CEQ published a handbook entitled Considering Cumulative Effects Under the National Environmental Policy Act (see <http://ceq.eh.doe.gov/nepa/ccenepa/ccenepa.htm>). The introduction to the handbook opens with, “Evidence is increasing that the most devastating

environmental effects may result not from the direct effects of a particular action, but from the combination of individually minor effects of multiple actions over time.”

Cumulative impacts are considered for all alternatives, including the no-build alternative. They were determined by looking at each resource (impact topic), determining which past, present, and future actions would impact the resource for the determined spatial and temporal boundaries, and then combining the impacts of the alternative being considered with other past, present, and reasonably foreseeable future actions. Therefore, it was necessary to identify other ongoing or reasonably foreseeable future projects at Petersburg National Battlefield and, if applicable, the surrounding region.

Past Actions:

The Civil War Battles and Siege surrounding Petersburg
Alternate Uses (Private Historical Park, Golf Course and Mobile Home Park)
Establishment by Congress
Listing on the National Register
Mission 66 Development Program

Present and Future Actions at Petersburg National Battlefield:

Present and reasonably foreseeable future actions in the area are completed in accordance with Petersburg National Battlefield General Management Plan (GMP). In 2004, the Park prepared the GMP for the future of the park and issued a Final Environmental Impact Statement for the preferred action. The selected alternative uses the cultural landscape as the mechanism by which Civil War stories are told. A boundary expansion of 7,238 acres preserves nationally significant battlefields, protects existing park resources and creates opportunities for visitors to access these significant Civil War landscapes and resources.

The interpretive program is dynamic and interactive, conveying a more comprehensive Civil War story by making full use of battlefield resources. The visitor experience is much more compelling, as visitors are immersed in the landscape upon which battles were fought. Efforts by which NPS and others are protecting battlefields and other Civil War-related resources are emphasized. Visitors can begin and be fully oriented at any of the five park units. At each unit, a full and comprehensive interpretive program is available, with each unit's story explained within the campaign. New programs and expanded facilities are developed at Grant's Headquarters at City Point, Eastern Front, Home Front in Old Town Petersburg, Western Front Battlefield (including Poplar Grove National Cemetery), and Five Forks Battlefield. Partnerships with localities and organizations that promote battlefield preservation and further Civil War education and interpretation are pursued.

Present and Future Actions outside of the Petersburg National Battlefield:

The resource categories included for further evaluation in the EA (Viewsheds, Battlefield Landscape, Archeological Resources, Vegetation, Wildlife and Wildlife Habitat, and Visitor Use and Experience) have a cumulative analysis spatial boundary that is limited to within the Petersburg National Battlefield. No actions outside of the Battlefield are considered for cumulative impact analysis.

Impairment

The NPS *Management Policies* (NPS 2006a) require an analysis of potential effects to determine whether or not actions would impair park resources. The fundamental purpose of the National Park System, as established by the Organic Act and reaffirmed by the General Authorities Act, as amended, begins with a mandate to conserve park resources and values. NPS managers must always seek ways to avoid, or to minimize to the greatest degree practicable, adversely impacting park resources and values. However, the laws do give the National Park Service the management discretion to allow impacts to park resources and values when necessary and appropriate to fulfill the purposes of a park, as long as the impact does not constitute impairment of the affected resources and values. Although Congress has given the NPS the management discretion to allow certain impacts within a park system unit, that discretion is limited by the statutory requirement that the agency 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.

An impact to any park resource or value may constitute an impairment, but an impact would be more likely to constitute an impairment to the extent that it has a major or severe adverse effect upon a resource or value whose conservation is:

- necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park;
- key to the natural or cultural integrity of the park; or
- identified as a goal in the park's general management plan or other relevant NPS planning documents.

Impairment may result from NPS activities in managing the park, visitor activities, or activities undertaken by concessionaires, contractors, and others operating in the park. The following process was used to determine whether the alternatives had the potential to impair park resources and values:

1. The National Battlefield's enabling legislation, the General Management Plan, and other relevant background were reviewed with regard to the National Battlefield's purpose and significance, resource values, and resource management goals or desired future conditions.
2. Thresholds were established for each resource of concern to determine the context, intensity and duration of impacts, as defined above.
3. An analysis was conducted to determine if the magnitude of impact reached the level of "impairment," as defined by NPS Management Policies (NPS 2006a).

A determination of impairment is provided in the Conclusion section of each impact analysis for each impact topic under each alternative.

3.1 VIEWSHEDS

Affected Environment

Vegetation was cleared and vistas were opened during the mid-1970's. The most important vista from the perspective of interpretation, as well as scale, was the clearing of the area between the Confederate position at the Crater and the Union position at Fort Morton. Currently, this historically significant viewshed between The Crater and Fort Morton is fractured by the visual intrusion of the Fort Morton/Tour Stop 7 interpretive site parking area and the Park Tour Road. This vehicular traffic and parking disrupts the visitor's interpretation of the major Civil War battle that took place between these two strongholds on July 30, 1864.

Methodology

The impact intensity of a development on a viewshed depends on the type of development, its location, and what mitigation is applied. For example, a development in the foreground of a viewshed has a much larger impact than the same development located three miles distance. Mitigation could involve unobtrusive design or colors. All three factors are evaluated together to determine the level of impact a proposed development would have.

For the purposes of this analysis, a *viewshed* is defined as the landscape seen from key observation points. The *foreground* is defined as that part of the viewshed from the observation point to the first horizon/line of sight (e.g. a ridge top) or a line two miles away, whichever is closer. *Middle ground* is defined as that part of the viewshed two to five miles from the observation point. The *background* is everything more than five miles from the observation point.

Assessments of potential impacts to viewsheds were based on comparisons between the No Build Alternative and the Build Alternatives. The construction of a Build Alternative would be less than two years.

Definition of Intensity Levels:

Negligible	Minor	Moderate	Major
The action would not detract from existing cultural views; proposed development in the foreground, middle ground, or background would be essentially unnoticeable.	The action would be noticeable to some observers but would not detract from cultural views. There could be small changes to existing form, line, texture, or color in the background.	The action would be noticeable to most observers and may detract from cultural views in a limited portion of a viewshed. There could be modest changes to existing form, line, texture, or color in the middle ground or background.	The action would be immediately noticeable and would detract from the cultural setting in a majority of a viewshed. It would result in large changes to existing form, line, texture, or color in the foreground, middle ground, or background. Or portions of the natural viewscape would be obstructed.

Definition of Duration:

Short-term: Occurs only during the construction period.

Long-term: Occurs even after the construction period.

Cumulative Impacts

The spatial boundary for the cumulative impacts assessment has been defined as the limits of the viewshed between the Crater and Fort Morton. The temporal boundary for the cumulative impacts assessment has been defined as the day of the Battle, July 30, 1864, through 10 years in the future.

Past actions that would have contributed to cumulative impacts include:

The Civil War Battle at Petersburg

Alternate uses of the site, including as a private historical park and golf course

Establishment by Congress

Listing on the National Register

The Mission 66 Development Program, including construction of the Park Tour Road

Crater Tour Road, Parking Lot and Trail realignment in 2001

Present and future actions that would contribute to cumulative impacts include:

Petersburg National Battlefield General Management Plan, 2004; Resource Protection

Roadway Rehabilitation/Construction on the north section of the Park Tour Road, 2007

The cumulative actions have a long-term minor beneficial impact to viewsheds. The preservation of battlefield sites and maintenance of vegetation in the Park allows for viewsheds to remain similar in appearance to the Civil War era; however the Park Tour road intrudes on park visitor's view of the historic vista.

Environmental Consequences

No Build Alternative:

The No Build Alternative would result in continued long-term moderate impact to the foreground viewshed between the Crater and Fort Morton. The park visitor's interpretation of the battle scene would continue to be disrupted by vehicles traveling on the Park Tour Road and parking their vehicles at the Fort Morton interpretive site parking lot, both of which are in direct view when looking from the Crater towards Fort Morton and vice versa.

Conclusions: There would be a long-term moderate adverse impact as the viewshed would continue to be impeded by the intrusion of the modern road and vehicles traveling on the road. The impacts of No Build Alternative combined with the cumulative impacts would have long-term moderate adverse impact to viewsheds. The viewshed would not be impaired as a result of this alternative.

Alternative 1:

The associated construction activities would have a short-term, adverse impact on the visual resources of the Park during the construction period because of the presence of construction equipment and personnel. A viewshed analysis of the Alternative 1 was completed using the line of sight of a person of approximately 6 feet in height. By moving the Fort Morton parking area and the roadway, Alternative 1 would hide almost all vehicles and the pavement from the viewshed. Alternative 1 would also place the relocated Tour Road further from Fort Morton on its south side than Alternative 2. This increased distance would better reduce or eliminate vehicle sightings and noise from the visitor vantage point within Fort Morton. The construction of the trails will be outside of the viewshed in the wooded portion of the park. The removal of the parking area and roadway from the view between Fort Morton and the Crater would have a major long-term beneficial impact to viewsheds. The additional work (roadway rehabilitation and trail and parking area construction as described in Section 2.2) would have minor short term adverse impacts during construction, and negligible long term impacts.

Conclusions: Alternative 1 would result in minor short-term adverse impacts on the viewshed during the construction period, but no long-term adverse effects are expected. Major beneficial long-term impacts on the viewshed would result from the removal of current obstructions. The impacts of Alternative 1 combined with the cumulative impacts would have a long-term major beneficial impact to the viewshed. The viewshed would not be impaired as a result of this alternative.

Alternative 2:

The associated construction activities would have a short-term, adverse impact on the visual resources of the Park during the construction period because of the presence of construction equipment and personnel. A viewshed analysis of the Alternative 2 was completed using the line of sight of a person of approximately 6 feet in height. By moving the Fort Morton parking area and the roadway, Alternative 2 would hide almost all vehicles and the pavement from the viewshed. The removal of the parking area and roadway from the view between Fort Morton and the Crater would have a moderate long-term beneficial impact to viewsheds. Alternative 2 would not be as beneficial as Alternative 1 in terms of the visitor experience within Fort Morton since it is closer to the fort and might allow more vehicle sightings and greater noise. The additional work (roadway rehabilitation and trail and parking area construction as described in Section 2.2) would have minor short term adverse impacts during construction, and negligible long term impacts.

Conclusions: Alternative 2 would result in minor short-term adverse impacts on the viewshed during the construction period, but no long-term adverse effects are expected. Moderate beneficial long-term impacts on the viewshed would result from the removal of current obstructions. Impacts of Alternative 2 combined with the cumulative impacts would have a long-term major beneficial impact to the viewshed. The viewshed would not be impaired as a result of this alternative.

3.2 BATTLEFIELD LANDSCAPE

Affected Environment

Petersburg National Battlefield was established specifically to preserve the historic properties and interpret the historical events that occurred in 1864 and 1865 during the last year of the Civil War and as such is considered a congressionally designated National Register District. The Eastern Front Battlefield unit where this project will take place retains its integrity of location, setting, feeling and association. Many contributing elements of the 1864-1865 period of significance still exist and are preserved within the park boundary. A multiple property National Register nomination is being developed to update the roster of contributing historic properties, including landscape elements such as topography and the rural landscape surrounding the besieged town of Petersburg, structures such as earthworks, and archeological features such as camps. One element that has changed since the period of significance the park was established to preserve and interpret is the vegetation patterns which have evolved into wooded cover in areas that were once agricultural fields or cleared fields of fire (see Draft Cultural Landscape report for the Crater Battlefield). As stated in National Register Bulletin #40, “The covering of formerly open fields with trees is a natural and reversible alteration to the landscape”. Petersburg National Battlefield is a “cultural” park where the natural resources support the cultural resources. Its value lies in its earthworks nicely preserved since the days of the Civil War and historic sites where exciting stories await telling – places including both Fort Morton and the Crater. These values collectively make up the significant battlefield landscape of the Park.

The earlier park-era circulation features such as the 1930s road bed that will be re-used in this project are not historically significant or National Register eligible. A portion of the roadbed of the Baxter Trace Road is to be used to reroute the park tour road. Although this road was in existence before the war, it did not play a significant role in the siege or battles around Petersburg. It does not contribute to the cultural landscape because its setting is so altered: it is now an open cut through forest when it once ran through open fields. Although the forestation could be reversed, as noted above, its significance is not such that the park plans to interpret this feature.

The existing pedestrian interpretive trails serving the Fort Morton/Crater area were developed during the 1960s, 1970s and 2000s and are not in themselves historically significant. Thus, impacts to the walking trail will be discussed in the “Visitor Use and Experience” section below.

The improvements for visitor access and parking off Hickory Hill Road make use of previously disturbed areas and support access to the park recreation trail system rather than to interpretive trails.

Regulations

The National Historic Preservation Act, as amended in 1992 (16 USC 470 et seq.) and the NPS *Cultural Resource Management Guidelines* (NPS 1997) and *Policies* (Director’s Order 28) require the consideration of impacts on cultural resources listed on or eligible for listing on the National Register of Historic Places. The NPS Organic Act denotes a responsibility to conserve the natural and historic objects within parks unimpaired for the enjoyment of future generations.

Methodology

Cultural landscapes are the result of the long interaction between people and the land, the influence of human beliefs and actions over time upon the natural landscape. Shaped through time by historical land-use and management practices, as well as politics and property laws, levels of technology, and economic conditions, cultural landscapes provide a living record of an area's past, a visual chronicle of its history. The dynamic nature of modern human life, however, contributes to the continual reshaping of cultural landscapes, making them a good source of information about specific times and places, but at the same time rendering their long-term preservation a challenge. Petersburg National Battlefield is a specific category of cultural landscape, as its name implies. It preserves military features that were constructed on the underlying cultural landscape in a short period of time and then preserved into the future as a result of their importance and massive scale.

In order for a cultural landscape to be listed in the National Register, it must possess significance (the meaning or value ascribed to the landscape) *and* have integrity of those features necessary to convey its significance. The character defining features of a cultural landscape include spatial organization and land patterns; topography; vegetation; circulation patterns; water features; and structures/buildings, site furnishings and objects (see *The Secretary of the Interior's Standards for the Treatment of Historic Properties With Guidelines for the Treatment of Cultural Landscapes*, 1996). Battlefield landscapes have specific guidance provided in National Register Bulletin #40, *Guidelines for Identifying, Evaluating and Registering America's Historic Battlefields*.

Definition of Intensity Levels:

Negligible	Minor	Moderate	Major
Impact(s) is at the lowest levels of detection with neither adverse nor beneficial consequences. The determination of effect for §106 would be <i>no adverse effect</i> .	Alteration of a pattern(s) or feature(s) of the landscape would not diminish the overall integrity of the landscape. The determination of effect for §106 would be <i>no adverse effect</i> .	Alteration of a pattern(s) or feature(s) of the landscape would diminish the overall integrity of the landscape. The determination of effect for §106 would be <i>adverse effect</i> . A memorandum of agreement is executed among the National Park Service and applicable state or tribal historic preservation officer and, if necessary, the Advisory Council on Historic Preservation in accordance with 36 CFR 800.6(b). Measures identified in the MOA to minimize or mitigate adverse impacts reduce the intensity of impact under NEPA from major to moderate.	Alteration of a pattern(s) or feature(s) of the landscape would diminish the overall integrity of the landscape. The determination of effect for §106 would be <i>adverse effect</i> . Measures to minimize or mitigate adverse impacts cannot be agreed upon and the National Park Service and applicable state or tribal historic preservation officer and/or Advisory Council are unable to negotiate and execute a memorandum of agreement in accordance with 36 CFR 800.6(b).

Definition of Duration:

Short Term: Effects lasting less than two years

Long Term: Effects lasting longer than two years

Cumulative Impacts

The spatial boundary for the cumulative impacts assessment has been defined as the limits of the Petersburg National Battlefield main unit on the Eastern Front. The temporal boundary for the cumulative impacts assessment has been defined as the day of the Battle, July 30, 1864, through 10 years in the future.

Past actions that would have contributed to cumulative impacts include:

The Civil War Battle at Petersburg

Alternate uses of the site, including as a private historical park and golf course

Establishment by Congress

Listing on the National Register

The Mission 66 Development Program, including construction of the Battlefield Park Tour Road
2001 Road Project

Present and future actions that would contribute to cumulative impacts include:

Petersburg National Battlefield General Management Plan, 2004

Roadway Rehabilitation/Construction on the north section of the Park Tour Road, 2007

The cumulative actions have a long-term moderate beneficial impact to cultural landscapes. The preservation of the battlefield site and viewsheds, as well as properties along the ingress and egress route of the armies allows for the area to remain similar in appearance to the Civil War era.

Environmental Consequences

No Build Alternative:

The No Build Alternative would result in the continuation of the modern intrusion to the partially restored historic battlefield landscape between the Crater and Fort Morton as the battlefield site would continue to be bisected by vehicle traffic and parking. No disruption of the natural landscape surrounding the walking trail would occur due to this alternative.

Conclusions: The No Build Alternative would result in a moderate long-term adverse impact to the cultural landscape at the Crater/Fort Morton area since the view of the historic battlefield between the Crater and Fort Morton would continue to be impeded by Park Tour Road and the Fort Morton parking area. The impacts of the No Build Alternative combined with the cumulative impacts would have a long-term moderate adverse impact. The cultural landscape would not be impaired as a result of this alternative.

Alternative 1:

The associated construction activities would have a short-term, minor adverse impact on the cultural landscape during the construction period because of the addition of construction equipment and personnel. The re-routing of the Park Tour road would allow the vista between Fort Morton and the Crater to be viewed by the park visitor without the intrusion of the modern road and vehicles traveling on the road and have a long term, beneficial positive impact on a significant battlefield viewshed. A parking lot near the site of Fort Morton would also be removed with similar results. Construction of the roadway along an original road trace would alter the feature in a way that would be reversible if new information came to light about the significance of the roadbed. The construction of the trails will fit discreetly within a wooded portion of the park, and will not adversely affect the landscape. The additional work (roadway rehabilitation and trail and parking area construction as described in Section 2.2) would have negligible long term impacts since the work is outside of the cultural landscape. Overall, Alternative 1 would have a long-term moderate beneficial impact to the cultural landscape.

Conclusions: Alternative 1 would result in minor short-term adverse impacts on the cultural landscape during the construction period, but no long-term adverse effects are expected. Major beneficial long-term impacts on the cultural landscape would result from the removal of current obstructions. The impacts of Alternative 1 combined with the cumulative impacts would have a long-term major beneficial impact to the cultural landscape. The cultural landscape would not be impaired as a result of this alternative.

Alternative 2:

The associated construction activities would have a short-term, minor adverse impact on the visual resources of the Park during the construction period because of the presence of construction equipment and personnel. The re-routing of the Park Tour road would allow the vista between Fort Morton and the Crater to be viewed by the park visitor without the intrusion of the modern road and vehicles traveling on the road and have a long term, beneficial positive impact on a significant battlefield viewshed. The parking lot near the ruins of Fort Morton would also be removed with similar results. The construction of the trails will fit discreetly within a wooded portion of the park, and will not adversely affect the landscape. However, this alternative is not as beneficial as is Alternative 1 because it puts vehicles closer to the fort where they are more likely to be visible or audible to the visitor standing within the fort. The additional work (roadway rehabilitation and trail and parking area construction as described in Section 2.2) would have negligible long term impacts since the work is outside of the cultural landscape. Overall, Alternative 2 would have a long-term moderate beneficial impact to the cultural landscape.

Conclusions: Alternative 2 would result in minor short-term adverse impacts on the cultural landscape during the construction period, but no long-term adverse effects are expected. Major beneficial long-term impacts on the cultural landscape would result from the removal of current obstructions. The impacts of Alternative 2 combined with the cumulative impacts would have a long-term major beneficial impact to the cultural landscape. The cultural landscape would not be impaired as a result of this alternative.

3.3 ARCHEOLOGICAL RESOURCES

Affected Environment

The Michler map, drawn up in the immediate aftermath of the war for the Official Record, makes clear that the 1930s park road crossed the zigzag trench to the rear of Fort Morton. Work by Bruce Bevan and the National Park Service Archeology Program, shows that the lower levels of the fort and associated trenches still exist underground, although no surface indications are left on the property formerly owned by William Taylor. Both alternatives will definitely cross the main Union trench and associated branch trenches. Many other War features were associated with the trenches, including bombproofs, entanglements, and soldier's huts. The locations of these features were not always mapped on the official maps. The siege of Petersburg was a ten month long event and military features were constantly evolving. Features from earlier stages in the evolution of the Union works may not be represented in the Michler map but may be found through geophysical and archeological exploration.

Methodology

Certain important research questions about human history can only be answered by the actual physical material of cultural resources. Archeological resources have the potential to answer, in whole or in part, such research questions. An archeological site(s) can be eligible to be listed in the National Register of Historic Places if the site(s) has yielded, or may be likely to yield, information important in prehistory or history. An archeological site(s) can be nominated to the National Register in one of three historic contexts or levels of significance: local, state, or national (see National Register Bulletin #15, *How to Apply the National Register Criteria for Evaluation*). For purposes of analyzing impacts to archeological resources, thresholds of change for the intensity of an impact are based upon the potential of the site(s) to yield information important in prehistory or history, as well as the probable historic context of the affected site(s).

Definition of Intensity Levels:

Negligible	Minor	Moderate	Major
Impact is at the lowest levels of detection - barely measurable with no perceptible consequences to archeological resources. For purposes of Section 106, the determination of effect would be <i>no adverse effect</i> .	Disturbance of a site(s) results in little, if any, loss of significance or integrity and the National Register eligibility of the site(s) is unaffected. For purposes of Section 106, the determination of effect would be <i>no adverse effect</i> .	Disturbance of a site(s) does not diminish the significance or integrity of the site(s) to the extent that its National Register eligibility is jeopardized. For purposes of Section 106, the determination of effect would be <i>adverse effect</i> .	Disturbance of a site(s) diminishes the significance and integrity of the site(s) to the extent that it is no longer eligible to be listed in the National Register. For purposes of Section 106, the determination of effect would be <i>adverse effect</i> .

Definition of Duration:

Any effect on archeological resources is considered long-term.

Cumulative Impacts

The spatial boundary for the cumulative impacts assessment has been defined as the limits of the Petersburg National Battlefield main unit on the Eastern Front. The temporal boundary for the cumulative impacts assessment has been defined as the day of the Battle, July 30, 1864, through 10 years in the future.

Past actions that would have contributed to cumulative impacts include:

The Civil War Battle at Petersburg

Alternate uses of the site, including as a private historical park and golf course

The Mission 66 Development Program, including construction of the Battlefield Park Tour Road

Present and future actions that would contribute to cumulative impacts include:

Petersburg National Battlefield General Management Plan, 2004

Roadway Rehabilitation/Construction on the north section of the Park Tour Road, 2007

The cumulative impacts would have a long-term minor beneficial impact on archeological resources by ensuring that the resources are protected for the future, incurring as little disturbance as possible as is needed to ensure that the public has safe and ample access to enjoy the cultural elements of the Park.

Environmental Consequences

No Build Alternative:

The No Build Alternative would have no effect on archeological resources since no land disturbance would take place.

Conclusions: No impairment to archeological resources would occur as a result of the No Build Alternative.

Archeological Resource Protection Measures – Applicable to Both Build Alternatives

- A qualified archeologist would monitor the minor ground disturbing activities such as vegetation removal, expected as a result of this project.
- Fill material would be borrowed from locations with no significant cultural resources outside of the Park.

Alternative 1:

Historic maps, other records, historic photographs, and recent geophysical and archeological work make it clear that the road reroute, under both alternatives, will unavoidably cross significant archeological resources. Alternative 1 follows the former Park Tour Road (which has already impacted these features) then connects to an historic trace road, the Baxter Road, for about 500 feet and runs closer to the zigzag trench but further from Fort Morton. The Baxter Road was likely to have been a property line, or have delineated the edge of a field, because surface indications of earthworks are obliterated north of the road, but still stand to the south.

Due to the nature of the topography and the use of already cleared roadways, only negligible excavation would be necessary to construct the roadway; therefore impacts to archeological resources would be minimal and mostly confined to the short stretch of new road way between the old Park Tour Road and the Baxter Road Trace where a few trees would need to be removed. The additional work (roadway rehabilitation and trail and parking area construction as described in Section 2.2) would have negligible long term impacts because the construction of the trails and road resurfacing will be limited to the surface with no excavations required. Long-term minor adverse impacts would result from the Alternative 1 as vegetation would need to be cleared to construct the roadway and possible drainage features. Vegetation removal would be extremely limited and less than Alternative 2.

Conclusions: Alternative 1 would have a long-term negligible adverse impact to archeological resources. The roadway would be constructed primarily on fill material, and a portion of the alignment follows an existing road trace. The impacts of Alternative 1 combined with the cumulative impacts would have a long-term neutral impact to archeological resources. Archeological resources would not be impaired as a result of this alternative.

Alternative 2:

Historic maps, other records, historic photographs, and recent geophysical and archeological work make it clear that the road reroute, under both alternatives, will unavoidably cross significant archeological resources. Alternative 2 is slightly shorter but would require the removal of more trees than Alternative 1. It would be cut through forested terrain between Fort Morton and the extant earthworks, once a zigzag trench, to the south of the fort leading to the railroad cut and eventually to the picket line. Long-term negligible adverse impacts would result from the Alternative 2 as vegetation would need to be cleared to construct the roadway and possible drainage features. Alternative 2 would have more impact on subsurface archeological resources than Alternative 1, since it would follow an existing, somewhat cleared road trace. The additional work (roadway rehabilitation and trail and parking area construction as described in Section 2.2) would have negligible long term impacts because the construction of the trails and road resurfacing will be limited to the surface with no excavations required. The construction of the trails and road resurfacing will be limited to the surface with no excavations required.

Conclusions: Alternative 2 would have a long-term minor adverse impact to archeological resources. The roadway would be constructed primarily of fill material; however more vegetation would be cleared as the alignment cuts through forested terrain. The impacts of Alternative 2 combined with the cumulative impacts would have a long-term neutral impact. Archeological resources would not be impaired as a result of this alternative.

3.4 VEGETATION

Affected Environment

Petersburg National Battlefield consists of a number of different habitat types. These habitats include upland coastal plain, piedmont forest, old field, managed field, marsh, and riverine

vegetation. This diversity of habitats allows for a large, varied plant population. To date, 170 species of vascular plants have been documented within the park.

Petersburg National Battlefield's vegetation makeup is continually changing due to pests, extreme weather, and invasive exotics. Today, the park's units are more wooded than they were during the siege of Petersburg in 1865 and in 1926 when the park was established. Forests make up almost ninety percent of the park, ranging from pine to mixed pine/hardwood in composition. The dominant tree species include Yellow Poplar, Sweet Gum, White Oak, and Loblolly Pine.

Other than National Park Service development to accommodate visitors, the Crater Battlefield is not a designed landscape and does not feature a complicated palette of vegetation. Specimen plantings do not have a role in defining the character of the landscape. In the case of the Crater itself, an informal grove of trees has been allowed to develop, and marks the site from a distance and gives the site an appropriate memorial, funereal quality. The location of Fort Morton is indicated by an outline of oyster shells and unmowed high grass in the area where the fort walls once stood. A display of five cannon also marks the site.

Regulations and Policies

NPS Management Policies (NPS 2001a; Section 4.4.2.1) provides guidance on the removal of plants from parks. It states that when the NPS allows the removal of plants for any authorized action, the NPS will seek to "ensure that such removals will not cause unacceptable impacts on native resources, natural processes, or other park resources." Additionally, the NPS "will manage such removals to prevent them from interfering broadly with: natural habitats, natural abundances, and natural distributions of native species and natural processes; rare, threatened, and endangered plant or animal species or their critical habitats; scientific study, interpretation, environmental education, appreciation of wildlife, or other public benefits; opportunities to restore depressed populations of native species; or breeding or spawning grounds of native species."

Methodology

Available information on vegetation and vegetative communities potentially impacted by the proposed alternatives was compiled by talking to the National Battlefield natural resource staff and consulting resource management documents. To the extent possible, location of sensitive vegetation species, populations, and communities were identified and avoided. Predictions about short-term and long-term impacts to vegetation were based on previous experience of projects of similar scope and vegetative characteristics. Analyses of the potential intensity of impacts on vegetation were derived from the available information on the Park and the professional judgment of the Park Staff. The construction of a build alternative would most likely be two years or less, therefore the duration of the short term duration is two years.

Definition of Intensity Levels:

Negligible	Minor	Moderate	Major
No native vegetation would be affected or some individual native plants could be affected as a result of the alternative, but there would be no effect on native species populations. The effects would be on a small scale and no sensitive vegetation communities would be affected.	The alternative would affect some individual native plants and would also affect a relatively minor portion of that species' population. Mitigation to offset adverse effects, including special measures to avoid affecting sensitive vegetation communities, could be required and would be effective.	The alternative would affect some individual native plants and would also affect a sizeable segment of the species' population and over a relatively large area. Mitigation to offset adverse effects could be extensive, but would likely be successful. Some sensitive vegetation communities could also be affected.	The alternative would have a considerable effect on native plant populations, including sensitive vegetation communities, and affect a relatively large area in and out of the park. Mitigation measures to offset the adverse effects would be required, extensive, and success of the mitigation measures would not be guaranteed.

Definition of Duration:

Short-term: Effects lasting less than 2 years

Long-term: Effects lasting longer than 2 years

Cumulative Impacts

The spatial boundary for the cumulative impacts assessment has been defined as the limits of the Petersburg National Battlefield Eastern Front Battlefield. The temporal boundary for the cumulative impacts assessment has been defined as the day of the Battle, July 30, 1864, through 10 years in the future.

Past actions that would have contributed to cumulative impacts include:

The Civil War Battle at Petersburg

Alternate uses of the site, including as a private historical park and golf course

Establishment by Congress

Listing on the National Register

The Mission 66 Development Program, including construction of the Battlefield Park Tour Road

Present and future actions that would contribute to cumulative impacts include:

Petersburg National Battlefield General Management Plan, 2004

Roadway Rehabilitation/Construction on the north section of the Park Tour Road, 2007

The cumulative actions have a minor long-term adverse impact to vegetation. The preservation and interpretation of the battlefield sites and viewsheds requires vegetation maintenance to afford visitors an accurate and unobstructed view of the historic area. Some of the large trees in the Park represent a blow-down risk to earthworks and impede viewsheds, thus may need to be removed. Since the purpose of the Park is to preserve and interpret the Civil War battlefield, these are the primary goals when determining vegetation management practices.

Environmental Consequences

No Build Alternative:

The No Build Alternative would not impact vegetation since no land disturbance would take place.

Conclusions: Vegetation would not be impaired as a result of the No Build Alternative.

Alternative 1:

Since the part of the current walking trail would be used as the site for the new road alignment, Alternative 1 would result in 0.5 acres of wooded vegetation removal. Construction of the road on fill material to preserve the historical earthworks requires grading of the slopes down to ground level, thus impacting a wider area of vegetation. Since the purpose of the Park is to preserve the cultural resources from the Civil War era, this takes precedence over the preservation of vegetation. Vegetation removal would be minimized. The additional work (roadway rehabilitation and trail and parking area construction as described in Section 2.2) would have negligible long term impacts because the trails will be constructed in a way as to have minimal tree impacts. The trail pathway is narrow (5 feet), and the trail path doesn't require a direct path so it can meander to avoid quality vegetation. The roadway and parking reconstruction will have negligible impact.

The 1,800-foot bypassed portion of Park Tour Road and the 8,200 square foot old Fort Morton parking area, totaling approximately 1.7 acres, would be obliterated. Once the pavement is removed and the contour of the battlefield is returned to its original grade, a grass cover on the surface would be necessary to help prevent erosion. Additionally, the grass cover would enable visitors to better visualize the contours and features associated with the surface. Grass selection will be representative of the grass already established on both sides of the tour road and in the fields. Therefore, Alternative 1 would have a long-term minor adverse impact on vegetation.

Conclusions: Alternative 1 would have a long term minor adverse impact on vegetation in the area because it would be constructed for the most part on an old road trace and former park tour road but would require some tree removal. The loss of vegetation would be mitigated through the replanting of vegetation on the obliterated section of the Park Tour Road and Fort Morton parking area. Although the obliterated area would not be replanted as forest due to preservation of the viewshed, the vegetative cover would offset the addition of impervious surface as a result of the construction of either of the build alternatives. Vegetation would not be impaired as a result of this Alternative.

Alternative 2:

Although vegetation removal would be minimized as much as possible, Alternative 2 would result in approximately 0.7 acres of wooded vegetation removal. Construction of the road on fill material to preserve the historical earthworks requires grading of the slopes down to ground level, thus impacting a wider area of vegetation. Since the purpose of the Park is to preserve the cultural resources from the Civil War era, this takes precedence over the preservation of

vegetation. The vegetation affected is relatively common in the park and the overall area and many of the trees in the impact area have fallen as a result of beetle infestations and recent storms. The additional work (roadway rehabilitation and trail and parking area construction as described in Section 2.2) would have negligible long term impacts because the trails will be constructed in a way as to have minimal tree impacts. The trails will be constructed in a way as to have minimal tree impacts because the pathway is narrow (5 feet). The trail path doesn't require a direct path so it can meander to avoid quality vegetation.

The 1,800-foot bypassed portion of Park Tour Road and the 8,200 square foot old Fort Morton parking area, totaling approximately 1.7 acres, would be obliterated. Once the pavement is removed and the contour of the battlefield is returned to its original grade, a grass cover on the surface would be necessary to help prevent erosion. Additionally, the grass cover would enable visitors to better visualize the contours and features associated with the surface. Grass selection will be representative of the grass already established on both sides of the tour road and in the fields. Therefore, Alternative 2 would have a long-term minor adverse impact on vegetation.

Conclusions: Alternative 2 would have a long term minor adverse impact on vegetation since it would be constructed in a section of previously undeveloped forest. The loss of vegetation would be mitigated through the replanting of vegetation on the obliterated section of the Park Tour Road and Fort Morton parking area. Although the obliterated area would not be replanted as forest due to preservation of the viewshed, the vegetative cover would offset the addition of impervious surface as a result of the construction of either of the build alternatives. Vegetation would not be impaired as a result of this Alternative.

3.5 WILDLIFE AND WILDLIFE HABITAT

Affected Environment

Wildlife is abundant at the Battlefield, and, in certain cases, very visible throughout the Park. To date, the Park has inventoried 20 species of mammals, 22 species of fish, 20 species of amphibians, 27 species of reptiles, and 142 species of birds. Deer, rabbit, skunk, groundhog, opossum, and raccoon are some of the most commonly seen species in the park. A variety of avian species, including cardinal, mockingbird, eagle, osprey, and hawk, frequent the Park during different times of the year. Many species of fish, reptiles, amphibians, and small mammals have also been documented within the boundaries of Petersburg National Battlefield. These include a large community of Spade-footed toads and the Northern copperhead (the Park's only known venomous snake), and the White-footed mouse. The Eastern box turtle and the Eastern worm snake also have very large populations within the Park.

Methodology

Available information on wildlife and wildlife habitat communities potentially impacted by the proposed alternatives was compiled by talking to park natural resource staff, consulting resource management documents, and correspondence with various resource agencies. The location of sensitive wildlife or wildlife habitat have been avoided. Predictions about short-term and long-term impacts to wildlife and wildlife habitat were based on previous experience of projects of similar scope and vegetative characteristics. Analyses of the potential intensity of impacts on

wildlife or wildlife habitat were derived from the available information on the Park and the professional judgment of the Park Staff. The construction of a build alternative would most likely be two years or less, therefore the duration of the short term duration is two years.

Definition of Intensity Levels:

Negligible	Minor	Moderate	Major
Wildlife and their habitats would not be affected or the effects would be at or below the level of detection and would not be measurable or of perceptible consequence to wildlife populations	Effects on wildlife or habitats would be measurable or perceptible, but localized within a small area. While the mortality of individual animals might occur, the viability of wildlife populations would not be affected and the community, if left alone, would recover.	A change in wildlife populations or habitats would occur over a relatively large area. The change would be readily measurable in terms of abundance, distribution, quantity, or quality of population. Mitigation measures would be necessary to offset adverse effects, and would likely be successful.	Effects on wildlife populations or habitats would be readily apparent, and would substantially change wildlife populations over a large area in and out of the national park. Extensive mitigation would be needed to offset adverse effects, and the success of mitigation measures could not be assured.

Definition of Duration:

Short-term: Effects lasting less than 2 years

Long-term: Effects lasting longer than 2 years

Cumulative Impacts

The spatial boundary for the cumulative impacts assessment has been defined as the limits of the Petersburg National Battlefield main unit on the Eastern Front. The temporal boundary for the cumulative impacts assessment has been defined as the day of the Battle, July 30, 1864, through 10 years in the future.

Past actions that would have contributed to cumulative impacts include:

The Civil War Battle at Petersburg

Alternate uses of the site, including as a private historical park and golf course

Establishment by Congress

Listing on the National Register

The Mission 66 Development Program, including construction of the Battlefield Park Tour Road

Present and future actions that would contribute to cumulative impacts include:

Petersburg National Battlefield General Management Plan, 2004

Roadway Rehabilitation/Construction on the north section of the Park Tour Road, 2007

The cumulative actions have a long-term minor adverse impact to wildlife and wildlife habitat. The preservation of the battlefield sites and viewsheds requires vegetation maintenance to afford visitors an accurate and unobstructed view of the historic area. Some of the large trees in the Park represent a blow-down risk to earthworks and impede viewsheds, thus may need to be removed. These vegetation maintenance actions may negatively impact wildlife and wildlife

habitat in the area. Since the purpose of the Park is to preserve the cultural resources from the Civil War era, that is the primary goal when determining how to manage wildlife and wildlife habitat at the site.

Environmental Consequences

No Build Alternative:

The No Build Alternative would not impact wildlife or wildlife habitat since no land disturbance would take place.

Conclusions: Neither wildlife nor wildlife habitat would be impaired as a result of the No Build Alternative.

Alternative 1:

The removal of wildlife habitat would be minimized as much as possible by Alternative 1, but it would result in approximately 0.5 acres of wooded vegetation removal. The trails will be constructed in a way as to have minimal tree impacts because the pathway is narrow (5 feet). The trail path doesn't require a direct path so it can meander to avoid impact on wildlife habitat. Alternative 1 would have minimal affect on the wildlife and its habitat. The additional work (roadway rehabilitation and trail and parking area construction as described in Section 2.2) would have negligible long term impacts because the trails will be constructed in a way as to have minimal habitat impact and the roadway and parking construction will have negligible impact.

The 1,800-foot bypassed portion of Park Tour Road and the 8,200 square foot old Fort Morton parking area, totaling approximately 1.7 acres, would be obliterated and replanted with grass. This would create new habitat for wildlife species, such as the White-footed mouse and various varieties of snakes that reside in grassy habitats and are found commonly throughout the Park. Therefore, Alternative 1 would have a long-term negligible adverse effect on wildlife and wildlife habitat.

Conclusions: Alternative 1 would have a long-term negligible adverse impact on wildlife and wildlife habitat due to the use of the current walking trail. New grassy habitat would be developed on the 1.7-acre obliterated section of pavement, which would be beneficial to wildlife that utilizes that habitat. The impacts of Alternative 1 combined with the cumulative impacts would have a long-term minor adverse impact to wildlife and wildlife habitat. Wildlife and wildlife habitat would not be impaired as a result of this alternative.

Alternative 2:

Although removal of wildlife habitat would be minimized as much as possible, Alternative 2 would result in approximately 0.7 acres of wooded vegetation removal. The trails will be constructed in a way as to have minimal tree impacts because the pathway is narrow (5 feet). The trail path doesn't require a direct path so it can meander to avoid impact to wildlife habitat. The additional work (roadway rehabilitation and trail and parking area construction as described

in Section 2.2) would have negligible long term impacts because the trails will be constructed in a way as to have minimal habitat impact and the roadway and parking construction will have negligible impact.

The 1,800-foot bypassed portion of Park Tour Road and the 8,200 square foot old Fort Morton parking area, totaling approximately 1.7 acres, would be obliterated and replanted with grass. This would create new habitat for wildlife species, such as the White-footed mouse and various varieties of snakes that reside in grassy habitats and are found commonly throughout the Park. Therefore, Alternative 2 would have a long-term negligible adverse effect on wildlife and wildlife habitat.

Conclusions: Alternative 2 would have a long-term negligible adverse impact on wildlife and wildlife habitat in the area since it would be constructed in a previously undeveloped forested area. The impacts of Alternative 2 combined with the cumulative impacts would have a long-term minor adverse impact to wildlife and wildlife habitat. Wildlife and wildlife habitat would not be impaired as a result of this alternative.

3.6 VISITOR USE AND EXPERIENCE

Affected Environment

Visitation at Petersburg National Battlefield has averaged 400,000 visitors per year over the last several years. The majority of the Battlefield's visitation occurs between the months of April and October with peak visitation between May and August. Many of the visitors tour the Park in private vehicles or by tour bus. Most Park visitors traveling in private vehicles utilize the auto tour developed by the Park. Visitors also tour the Park on foot or on bicycles. The Park encourages and supports a quiet reflective visitor experience while at Petersburg National Battlefield.

Regulations and Policies

Enjoyment of park resources and values is part of the fundamental purpose of all parks. The NPS Management Policies (NPS 2001a) provides the basic service-wide policies on visitor use and recreation activities (Section 8.2.2).

Methodology

NPS *Management Policies 2001* state that the enjoyment of park resources and values by the people of the United States is part of the fundamental purpose of all parks and that the National Park Service is committed to providing appropriate, high-quality opportunities for visitors to enjoy the parks. Part of the purpose of Petersburg National Battlefield is to offer opportunities for recreation, education, inspiration, and enjoyment. Consequently, one of the park's management goals is to ensure that visitors safely enjoy and are satisfied with the availability, accessibility, diversity, and quality of park facilities, services, and appropriate recreational opportunities.

Public input and observation of visitation patterns combined with assessment of what is available to visitors under current management were used to estimate the effects of the actions in the

various alternatives in this document. The impact on the ability of the visitor to experience a full range of Petersburg National Battlefield resources was analyzed by examining resources and objectives presented in the Petersburg National Battlefield significance statement. The potential for change in visitor use and experience proposed by the alternatives was evaluated by identifying projected increases or decreases in the ability of visitors to imagine and interpret the battle scenes and other visitor uses, and determining whether or how these projected changes would affect the desired visitor experience and to what degree and for how long.

Definition of Intensity Levels:

Negligible	Minor	Moderate	Major
Changes in visitor use and/or experience would be below or at the level of detection. The visitor would not likely be aware of the effects associated with the alternative.	Changes in visitor use and/or experience would be detectable, although the changes would be slight. The visitor would be aware of the effects associated with the alternative, but the effects would be slight.	Changes in visitor use and/or experience would be readily apparent. The visitor would be aware of the effects associated with the alternative and would likely be able to express an opinion about the changes.	Changes in visitor use and/or experience would be readily apparent and severely adverse. The visitor would be aware of the effects associated with the alternative and would likely express a strong opinion about the changes.

Definition of Duration:

Short-term: Occurs only during the construction period.

Long-term: Occurs after the construction period.

Cumulative Impacts

The spatial boundary for the cumulative impacts assessment has been defined as the limits of the Petersburg National Battlefield main unit on the Eastern Front. The temporal boundary for the cumulative impacts assessment has been defined as the day the Park was established in July of 1936 through 10 years in the future.

Past actions that would have contributed to cumulative impacts include:

Establishment by Congress

Listing on the National Register

The Mission 66 Development Program, including construction of the Battlefield Park Tour Road

Present and future actions that would contribute to cumulative impacts include:

Petersburg National Battlefield General Management Plan, 2004

Roadway Rehabilitation/Construction on the north section of the Park Tour Road, 2007

The cumulative actions would have a long-term moderate beneficial impact on visitor use and experience. Under the 2004 General Management Plan, a boundary expansion of 7,238 acres will preserve nationally significant battlefields, protect existing park resources and create opportunities for visitors to access these significant Civil War landscapes and resources. The interpretive program will be more dynamic and interactive, conveying a more comprehensive Civil War story by making full use of battlefield resources. The visitor experience will be much

more compelling, as visitors are immersed in the landscape upon which battles were fought. Past, current and future preservation and enhancement of the historical sites has a beneficial effect upon the visitor experience.

Environmental Consequences

No Build Alternative:

The No Build Alternative would result in no changes to visitor use and experience. The Park Tour Road and parking area at Fort Morton/Tour Stop 7 would continue to impede the view and battle scene interpretation at the Crater area. The walking trail would remain undisturbed in its current location. The roadways in need of repair would continue to deteriorate.

Conclusions: Visitor use and experience would continue to be inhibited as a result of the No Build Alternative due to the impeded viewshed between the Crater and Fort Morton and the continued deterioration of other roadways in the Park. The No Build Alternative would result in a long-term minor adverse impact on visitor use and experience. Visitor use and experience would not be impaired as a result of this alternative.

Alternative 1:

Alternative 1 would result in a long-term moderate beneficial impact on visitor use and experience. Relocation of the road and parking area would improve the ability of visitors to interpret the battle scene at the Crater and Fort Morton area. Since this alignment would be located on a portion of the current walking trail, the trail would need to be relocated; causing a short-term minor adverse impact to walking visitors during construction improvements made to the other roads in the Park would improve safety and driving conditions for visitors. Accessibility to the Battlefield will remain similar to the No Build Alternative.

Temporary negligible impacts to visitor use and experience may occur during construction at these proposed sites, but most construction of the new road can be done outside of existing traffic, and construction traffic will not be required to use the Park Tour Road until after the realignment is constructed and the obliteration of the original alignment of the Park Tour Road begins. The additional work (roadway rehabilitation and trail and parking area construction as described in Section 2.2) would have minor short term adverse impacts during construction, and moderate long term beneficial impacts. Temporary construction impacts to visitor use are anticipated during the resurfacing portion of the project, but the park area affected isn't the primary attraction for the visitors and will be a short duration. The construction of the new trail from Hickory Hill Road Visitor Trailhead Parking lot to the park trail system is a moderate beneficial impact to walking visitors.

Conclusions: Alternative 1 would result in a short-term negligible adverse impact and a long-term moderate beneficial impact on visitor use and experience. Alternative 1 would result in a short-term minor adverse impact due to relocation of the walking trail. The impacts of Alternative 1 combined with the cumulative impacts would have a long-term moderate beneficial impact to visitor use and experience. Visitor use and experience would not be impaired as a result of this alternative.

Alternative 2:

Alternative 2 would result in a long-term moderate beneficial impact on visitor use and experience. Relocation of the road and parking area would improve the ability of visitors to interpret the battle scene at the Crater and Fort Morton area. Since this alignment runs parallel to the walking trail, the trail would remain in place for visitor use. Accessibility to the Battlefield will remain similar to the No Build Alternative. Improvements made to the other roads in the Park would improve safety and driving conditions for visitors.

Temporary negligible impacts to visitor use and experience may occur during construction at these proposed sites, but most construction of the new road can be done outside of existing traffic, and construction traffic will not be required to use the Park Tour Road until after the realignment is constructed and the obliteration of the relocated portion of the Park Tour Road begins. The additional work (roadway rehabilitation and trail and parking area construction as described in Section 2.2) would have minor short term adverse impacts during construction, and moderate long term beneficial impacts. Temporary construction impacts to visitor use are anticipated during the resurfacing portion of the project, but the park area affected isn't the primary attraction for the visitors and will be a short duration. The construction of the new trail from Hickory Hill Road Visitor Trailhead Parking lot to the park trail system is a moderate beneficial impact to walking visitors.

Conclusions: Alternative 2 would result in a short-term negligible adverse impact and a long-term moderate beneficial impact on visitor use and experience. The impacts of Alternative 2 combined with the cumulative impacts would have a long-term moderate beneficial impact to visitor use and experience. Visitor use and experience would not be impaired as a result of this alternative.

3.7 CONCLUSIONS

No Build Alternative

The No Build Alternative would have no impact on vegetation or wildlife and wildlife habitat within the park. No archeological resources or historic resources would be disturbed or lost under the No Build Alternative because there would be no ground disturbing or construction activities. However the view of the historic battlefield between the Crater and Fort Morton would continue to be impeded by Park Tour Road and the Fort Morton parking area. Roadway deficiencies in other areas of the park would not be corrected, thus moderate adverse impacts to visitor use and experience and visitor conflicts and safety would occur as roadway conditions continued to deteriorate. No impairment to any park resource or value would occur with the No Build Alternative. Visitors have to cross the park tour road from the parking lot to go into Fort Morton, which is a safety concern.

Alternative 1

Alternative 1 would have negligible long-term impacts to vegetation and wildlife habitat due to the unavoidable removal of trees within the project area. The removal of trees would be minimized to only those necessary to complete the project. Alternative 1 would have minor

short-term adverse visitor use impacts during the relocation of the walking trail. Alternative 1 is not anticipated to affect the Park's archaeological and historic resources, nor impair the integrity and interpretive qualities of the sensitive sites. During the minor earth disturbing activities associated with vegetation removal, monitoring for archeological resources would be done by a qualified NPS archeologist.

Alternative 1 provides the opportunity for enhanced experience with an improved viewshed and safer roads. Additionally, the visitor would not have to cross the road to visit Fort Morton. Temporary impacts to visitor use and experience would occur during construction at the proposed sites. No impairment to any park resource or value would occur under Alternative 1.

Alternative 2

Alternative 2 would have negligible long-term impacts to vegetation and wildlife habitat due to the unavoidable removal of trees within the project area. The removal of trees would be minimized to only those necessary to complete the project but would be more than the amount required for Alternative 1. Alternative 2 is not anticipated to affect the park's archaeological and historic resources, nor impair the integrity and interpretive qualities of the sensitive sites. During the minor earth disturbing activities associated with vegetation removal, monitoring for archeological resources would be done by a qualified NPS archeologist

Alternative 2 provides the opportunity for enhanced experience with an improved viewshed and safer roads. Temporary impacts to visitor use and experience would occur during construction at the proposed sites. No impairment to any park resource or value would occur under Alternative 2.

Table 3.6 Summary of Environmental Consequences/Impact Comparison Matrix

Factor	No Build Alternative	Alternative 1	Alternative 2
Viewsheds	Long-term moderate adverse impact as the viewshed between the Crater and Fort Morton would continue to be impeded by vehicle traffic.	Minor short-term adverse impacts on the viewshed during the construction period, long-term major beneficial impact as the viewshed would be cleared.	Minor short-term adverse impacts on the viewshed during the construction period, long-term major beneficial impact as the viewshed would be cleared.
Battlefield Landscape	Long-term moderate adverse impact as the cultural landscape would continue to be impacted.	Short-term minor adverse impacts, long-term major beneficial impacts.	Short-term minor adverse impacts, long-term major beneficial impacts.
Archeological Resources	No change from the existing conditions.	Long-term negligible adverse impact.	Long-term minor adverse impact.
Vegetation	No change from the existing conditions.	Long-term minor adverse impact due to removal of 0.5 wooded acres; 1.7 acres of grassy vegetation would be restored on obliterated section	Long-term minor adverse impact due to removal of 0.7 wooded acres; 1.7 acres of grassy vegetation would be restored on obliterated section
Wildlife and Wildlife Habitat	No change from the existing conditions.	Long-term negligible adverse impact due to removal of 0.5 acres of habitat; 1.7 acres of grassy habitat would be restored on obliterated section	Long-term negligible adverse impact due to removal of 0.7 acres of habitat; 1.7 acres of grassy habitat would be restored on obliterated section
Visitor Use and Experience	Long-term minor adverse impact as the viewshed continues to be impacted, visitors have to cross the tour road and roadways deteriorate.	Long-term moderate beneficial impact due to corrected viewshed and improved road conditions; Short-term negligible adverse impact during construction due to construction activities	Long-term moderate beneficial impact due to corrected viewshed and improved road conditions; Short-term negligible adverse impact during construction due to construction activities

4 PUBLIC INVOLVEMENT AND COORDINATION

As required by NPS policies and planning documents, it is the Park's objective to work with state, federal, and local governmental and private organizations to ensure that the Park and its programs are coordinated with theirs, and are supportive of their objectives, as far as proper management of the Park permits, and that their programs are similarly supportive of Park programs.

Consultation and coordination have occurred with agencies for the development of the alternatives and preparation of the EA. The following people, organizations, and agencies were contacted for information, which assisted in identifying important issues, developing alternatives, and analyzing impacts:

Consulted Party	Consultation Results
U. S. Fish and Wildlife Service	Phone response to early coordination letter which indicated the project is "not likely to adversely affect" federally listed or proposed species or adversely modify critical habitat.
Virginia State Historic Preservation Office	SHPO has been briefed on the project and reviewed the Cultural Resource Identification Studies. SHPO concurred that 'no additional identification efforts are warranted'. No Adverse Affect on historic resources is anticipated by the undertaking.

4.1 Permits/Coordination

The Clean Water Act (CWA) of 1972 was created to restore and maintain waters of the United States. Several sections of the CWA are applicable to activities in or near waters of the United States, including both navigable waters and adjacent wetlands. Section 404 of the CWA, which is administered by the U.S. Army Corps of Engineers, regulates the discharge of dredged or fill material. The actions proposed are not anticipated to impact waters of the United States, and therefore not anticipated to be subject to U.S. Army Corps of Engineers review under the 404 regulatory program. Section 401 of the CWA, administered by the Virginia Department of Environmental Quality through the Virginia Wetland Protection Permit (Virginia Code 62.1-44.15), must certify that proposed activities that would result in discharges to surface water are consistent with the CWA. Section 402 of the CWA, National Pollutant Discharge Elimination System (NPDES), is administered by Virginia Department of Conservation and Recreation, as authorized by the Environmental Protection Agency. Stormwater discharges from construction activities that disturb a total of one or more acres of land require a NPDES permit.

Coastal Zone Management Act of 1972

Congress enacted the Coastal Zone Management Act to "preserve, protect, develop and, where possible, to restore and enhance the resources of the nation's coastal zone for this and succeeding generations."

The Coastal Zone Management Act (CZMA) of 1972 gives states with federally approved coastal programs the lead in coordinating and strengthening coastal zone management activities of all levels of government. Specifically, the CZMA gives state coastal programs the ability to require federal agencies to carry out their activities within the coastal zone in ways that are consistent with the state coastal program's policies. Federal consistency is the review of federal projects for consistency with state coastal policies.

Federal consistency applies to any activity that is in, or affects land use, water use or any natural resource in the coastal zone, if the activity is conducted by or on behalf of a federal government agency, requires a federal license or permit, receives federal funding, or is a plan for exploration, development or production from any area leased under the Outer Continental Shelf Lands Act. The Virginia Coastal Resources Management Program was established in 1986 to protect and manage an area known as Virginia's "coastal zone." This zone encompasses 29 counties, 17 cities and 42 incorporated towns in "Tidewater Virginia," including Prince George County, and therefore is required for this project.

Coastal Zone Management Act Consistency Determination

This document provides the Commonwealth of Virginia with the National Park Service's, in cooperation with the Federal Highway Administration, Consistency Determination under the Coastal Zone Management Act, sections 307(c)(1) [or (2)] and 15 CFR Part 930, sub-part C, for the Reconstruction and Improvement of Various Roadways and Parking Areas in Petersburg National Battlefield. This activity includes the work detailed in section 2.2 of the document.

The NPS has determined that the proposed build alternative affects the land or water uses or natural resources of Virginia as detailed in sections 1.5 and 4.1.

The Virginia Coastal Resources Management Program contains the following enforceable policies:

- Fisheries Management
- Subaqueous Lands Management
- Wetlands Management
- Dunes Management
- Non-point Source Pollution Control
- Point Source Pollution Control
- Shoreline Sanitation
- Air Pollution Control
- Coastal Lands Management

Based upon the following information, data, and analysis, the NPS finds that the proposed build alternative is consistent to the maximum extent practicable with the enforceable policies of the Virginia Coastal Resources Management Program. Compliance with Section 401 and Section 402, the use of best management practices, and the implementation of an erosion and sediment control plan during construction will address impacts to Non-point Source Pollution Control and Point Source Pollution Control. The remainder of the enforceable policies would not be impacted as the proposed action is located in an upland area, does not impact waters of the

United States, involves no septic installation and does not provide additional capacity for increased traffic.

Pursuant to 15 CFR Section 930.41, the Virginia Coastal Resources Management Program has 60 days from the receipt of this letter in which to concur with or object to this Consistency Determination, or to request and extension under 15 CFR Section 930.41(b). Virginia's concurrence will be presumed if its response is not received by the NPS on the 60th day from receipt of this determination. The State's response should be sent to FHWA and a copy sent to the NPS at the addresses below.

Mr. Kevin S. Rose
Eastern Federal Lands Highway Division
Federal Highway Administration
21400 Ridgetop Circle
Sterling, VA 20166

Superintendent
Petersburg National Battlefield
1539 Hickory Hill Road
Petersburg, Virginia 23803

4.2 Environmental Commitments

Archeological

- A qualified archeologist would monitor the ground disturbing activities such as vegetation removal.
- Fill material would be borrowed from locations with no significant cultural resources.

Vegetation

- Replanting of vegetation on the obliterated section of the Park Tour Road and Fort Morton parking area.

Water Quality

- Best Management Practices for erosion control measures and activities as necessary to prevent degradation of water quality

4.3 Public Notice/Public Scoping

In order to give the public and all interested parties a chance to review the EA, it will be noticed for public comment for a minimum of 30 days through local newspapers and on the internet. During this 30-day period, the EA will be available for review at the Eastern Front Visitor Center of the Petersburg National Battlefield and park headquarters, which is located at 1539 Hickory Hill Road, Petersburg, VA 23803-4721 and at six local libraries (A. P. Hill Branch, Rodof Sholom Branch, and William R. McKenney Libraries in Petersburg and Appomattox Regional Library in Hopewell, Colonial Heights Public Library in Colonial Heights, and Fort Lee Library in Fort Lee). Copies of the EA will also be sent to applicable Federal, State, and local agencies for their review and comment.

An electronic version of this document can be found on the National Park Services Planning Environment and Public Comment (PEPC) website at <http://parkplanning.nps.gov>. This site provides access to current plans, environmental impact analyses, and related documents on public review. Users of the site are encouraged to submit comments on this document while it is

available for public review. This document is located under the Northeast Region, Petersburg National Battlefield. An electronic version can also be found at <http://www.efl.fhwa.dot.gov/planning/nepa/index.htm>.

4.4 List of Preparers/Reviewers

The following individuals contributed to the development of this document:

Federal Highway Administration

Kevin S. Rose, Environmental Compliance Specialist

Kris Riesenberg, Environmental Protection Specialist

Tom Shifflett, Project Manager

National Park Service, Petersburg National Battlefield

Bob Kirby, Superintendent

Dave Shockley, Chief, Resource Management

Julia Steele, Cultural Resources Manager/Archeologist

Chris Calkins, Chief of Interpretation/Historian

National Park Service, Denver Service Center

Kristine Franzmann, Project Manager

5 REFERENCES

Conservation Planning, Environmental Impact Analysis, and Decision Making. Director's Order #12 and Handbook. National Park Service, 2001.

Cultural Resources Report for the Federal Left Flank and Fish Hook Siegeworks. Petersburg National Battlefield. NPS, 2002.

Design Scoping Report, Project Number PRA-PETE 500(3) for Petersburg National Battlefield. Federal Highway Administration, Eastern Federal Lands Highway Division. Sterling, Virginia, May 2006.

Earthworks Management at Petersburg National Battlefield. NPS. 2000.

Federal Consistency Reviews. Virginia Department of Environmental Quality.
<http://www.deq.state.va.us/eir/federal.html>.

Petersburg National Battlefield, General Management Plan and Environmental Impact Statement, NPS, 2004.

Petersburg National Battlefield, National Park Service. <http://www.nps.gov/pete/>

Richmond Projects, Virginia Department of Transportation.
<http://www.virginiadot.org/projects/district-projects.asp?ID=4>

The Road Inventory of Petersburg National Battlefield PETE-4770. Federal Highway Administration, Eastern Federal Lands Highway Division. Sterling, Virginia, April 2002.

US Historical Archive. <http://www.ushistoricalarchive.com/civilwar/va2/index.html>

Virginia's Erosion and Sediment Control Program, Virginia Department of Conservation and Recreation. http://www.dcr.virginia.gov/soil_&_water/e&s.shtml

Wallace, L. and M. Conway. *A History of Petersburg National Battlefield.* 1983.

APPENDIX A: Interagency Correspondence



COMMONWEALTH of VIRGINIA

L. Preston Bryan, Jr.
Secretary of Natural Resources

Department of Historic Resources
2801 Kensington Avenue, Richmond, Virginia 23221

Kathleen S. Kilpatrick
Director

Tel: (804) 367-2323
Fax: (804) 367-2391
TDD: (804) 367-2386
www.dhr.virginia.gov

June 1, 2007

Julia Steele, Ph.D., Cultural Resource Manager
United States Department of Interior
National Park Service
Petersburg National Battlefield
1539 Hickory Hill Road
Petersburg, Virginia 23903-4721

Re: Park Tour Road Reroute
Petersburg National Battlefield
DHR File No. 2006-1339

Dear Dr. Steele:

Thank you for requesting our comments on the document entitled, *Petersburg National Battlefield, Park Tour Road Reroute, Cultural Resources Identification Studies*. Based upon the documentation provided, we concur with your determination that no further identification efforts are warranted in connection with this project. We look forward to receiving the draft Environmental Assessment once it is available.

We have also received a copy of the draft document entitled *Cultural Landscape Report for the Crater Battlefield* prepared by the Olmstead Center for Landscape Preservation in 2000. The report is consistent with the guidance provided in the federal standards entitled *Archaeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines (48 FR 44742, September 29, 1983)*. More detailed comments will follow under separate cover.

If you have any questions concerning our comments, please do not hesitate to contact me at (804) 367-2323, ext. 112; fax (804) 367-2391; e-mail ethel.eaton@dhr.virginia.gov.

Sincerely,

Ethel R. Eaton, Ph.D., Manager
Office of Review and Compliance

Administrative Services
10 Commerce Avenue
Petersburg, VA 23805
Tel: (804) 893-1624
Fax: (804) 892-8156

Capital Region Office
2801 Kensington Ave.
Richmond, VA 23221
Tel: (804) 367-2392
Fax: (804) 367-2391

Tidewater Region Office
54415 Old Courthouse Way, 2nd Floor
Newport News, VA 23608
Tel: (757) 895-2807
Fax: (757) 896-2508

Roanoke Region Office
1630 Peters Ave., SE
Roanoke, VA 24013
Tel: (540) 857-7585
Fax: (540) 857-7580

Northern Region Office
3337 Main Street
PO Box 319
Stephens City, VA 22655
Tel: (540) 868-7031
Fax: (540) 868-7032