



Environmental Assessment

Access and Trailhead Improvements



Home of Franklin D. Roosevelt National Historic Site

April 2011

PROJECT SUMMARY

Introduction

The National Park Service is considering a project to improve visitor access at the Home of Franklin D. Roosevelt National Historic Site and Eleanor Roosevelt National Historic Site and to provide additional trailhead parking capacity at Roosevelt Farm Lane. The proposal includes the following major components:

- Construction of a 40-vehicle parking area;
- Installation of a traffic-actuated signalized intersection on Route 9, with pedestrian crosswalks;
- Relocation of the existing drive-in theater entrance to a new intersection directly opposite the Home and Library entrance;
- Construction of a spur trail to connect the new parking areas with Roosevelt Farm Lane;
- Construction of a sidewalk parallel to Route 9 inside the stone wall and tree row;
- Removal of the interim 6-space Roosevelt Farm Lane trailhead parking lot on Route 9 and relocation of existing trailhead kiosk;
- Traffic calming measures and crosswalk improvements on Route 9G crossing;
- Various landscape improvements, including stone walls, landscaping and site signage.

This document demonstrates compliance with both the *National Environmental Policy Act* of 1969, as amended, and Section 106 of the *National Historic Preservation Act* of 1966, as amended.

Purpose of and Need for Action

The purpose of the project is to provide visitors with enhanced access including parking availability and connectivity to the Roosevelt Estate, and restoration of the pastoral landscape of the area. In 2008, the National Park Service completed a rehabilitation of Roosevelt Farm Lane, which was part of the historic circulation system that connected Springwood, the estate's "Home Farm," and Eleanor Roosevelt's Val-Kill Cottage. However, Roosevelt Farm Lane does not currently accommodate sufficient public access due to limited parking capacity and lack of connectivity to the primary visitor areas in the park.

This action is needed to accommodate public access demands at Roosevelt Farm Lane, to provide increased trailhead parking along Route 9, to improve pedestrian and bicycle access, and to provide safer crossings on Route 9 and Route 9G. Additionally, the action would be beneficial should the proposed Hudson Valley Welcome Center be funded and built in the vicinity.

Overview of the Alternatives

Two alternatives are addressed in this environmental assessment:

- Alternative A: No Action
- Alternative B: Access and Trailhead Improvements

Summary of Impacts

Impacts of the proposed alternatives were assessed in accordance with the *National Environmental Policy Act*, the National Park Service Director's Order 12: Conservation Planning, Environmental Impact Analysis, and Decision-making, and the *National Historic Preservation Act*. Several impact topics were dismissed from further analysis because the proposed action would result in no impacts or negligible to minor and/or short-term impacts to those resources. No major impacts are anticipated as a result of this project.

How to Comment

Agencies and the public are encouraged to review and comment on the contents of this environmental assessment during a 30-day public review and comment period. We invite you to comment on this plan and you may do so by any one of several methods. The preferred method of providing comments is on the Planning, Environment, and Public Comment (PEPC) website: <http://parkplanning.nps.gov/HOFR>. You may also submit written comments to:

Sarah Olsen, Superintendent
Roosevelt-Vanderbilt National Historic Site
Attn: Access and Trailhead Improvements
4097 Albany Post Road
Hyde Park, New York 12538

Only written or PEPC comments will be accepted. Please submit your comments by May 11, 2011.

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CHAPTER 1: PURPOSE AND NEED

INTRODUCTION

The National Park Service (NPS) is considering a project to improve visitor access at the Home of Franklin D. Roosevelt (FDR) National Historic Site (NHS) and Eleanor Roosevelt NHS and to provide additional trailhead parking at Roosevelt Farm Lane. The Home of FDR NHS is located along the Hudson River within Hyde Park, New York, and is part of the larger Roosevelt-Vanderbilt NHS management unit. The location of the project area within the region is shown in figure 1. Project planning is managed by NPS in its role as administrator for the Hudson Valley Welcome Center project, a partnership project that included Roosevelt Farm Lane. Scenic Hudson, one of the project partners, currently owns the fee interest in the drive-in parcel where the project would be sited. The NPS would acquire an easement or other real property interests including the development rights prior to implementation of the project. Additional background on the Hudson Valley Welcome Center project is available under the “Scoping Process and Public Participation” section of this chapter.

The Home of FDR NHS preserves Franklin Delano Roosevelt’s Springwood mansion, most of the western Roosevelt Estate, FDR’s retreat “Top Cottage” and the graves of President and Mrs. Roosevelt. Within the NHS is the recently rehabilitated Roosevelt Farm Lane which was intended to provide visitors with an enhanced understanding of FDR’s forestry and agricultural activities and to expand the area’s recreational opportunities for the local residents and park visitors by adding an important segment to the existing Hyde Park Trail System (NPS 2007). Roosevelt Farm Lane now allows a pedestrian and bicycle connection between the Home of FDR and Eleanor Roosevelt’s Val-Kill home, and has been popular with visitors since it opened in 2008.

An environmental assessment (EA) analyzes the proposed action and alternatives and their impacts on the environment. This EA has been prepared in accordance with the *National Environmental Policy Act* (NEPA) of 1969, as amended, and implementing regulations; Title 40 of the Code of Federal Regulations (CFR), Parts 1500-1508; and NPS Director’s Order 12 and handbook, *Conservation Planning, Environmental Impact Analysis, and Decision-making* (NPS 2001). Compliance with Section 106 of the *National Historic Preservation Act* of 1966 (NHPA) has occurred in conjunction with the NEPA process.

PURPOSE OF AND NEED FOR ACTION

The purpose of the project is to provide visitors with enhanced access including trailhead parking availability and connectivity to the Roosevelt Estate, and restoration of the pastoral landscape of the area. In 2008, the NPS completed a rehabilitation of Roosevelt Farm Lane, which was part of the historic circulation system that connected Springwood, the estate’s “Home Farm,” and Eleanor Roosevelt’s Val-Kill Cottage. Roosevelt Farm Lane does not currently accommodate sufficient public access. The existing 6-car parking lot on Route 9 is frequently inadequate for the demand. In addition, although marked crosswalks exist on both Routes 9 and 9G, traffic conditions make it hazardous for pedestrians to cross either highway.

Therefore, the action is needed to accommodate public access demands at Roosevelt Farm Lane, to provide overflow parking for the Henry A. Wallace Visitor and Education Center, to provide increased trailhead parking along Route 9, to improve pedestrian and bicycle access, and to provide safer crossings on Route 9 and Route 9G. Additionally, the action would be beneficial should the proposed Hudson Valley Welcome Center be funded and built in the vicinity.

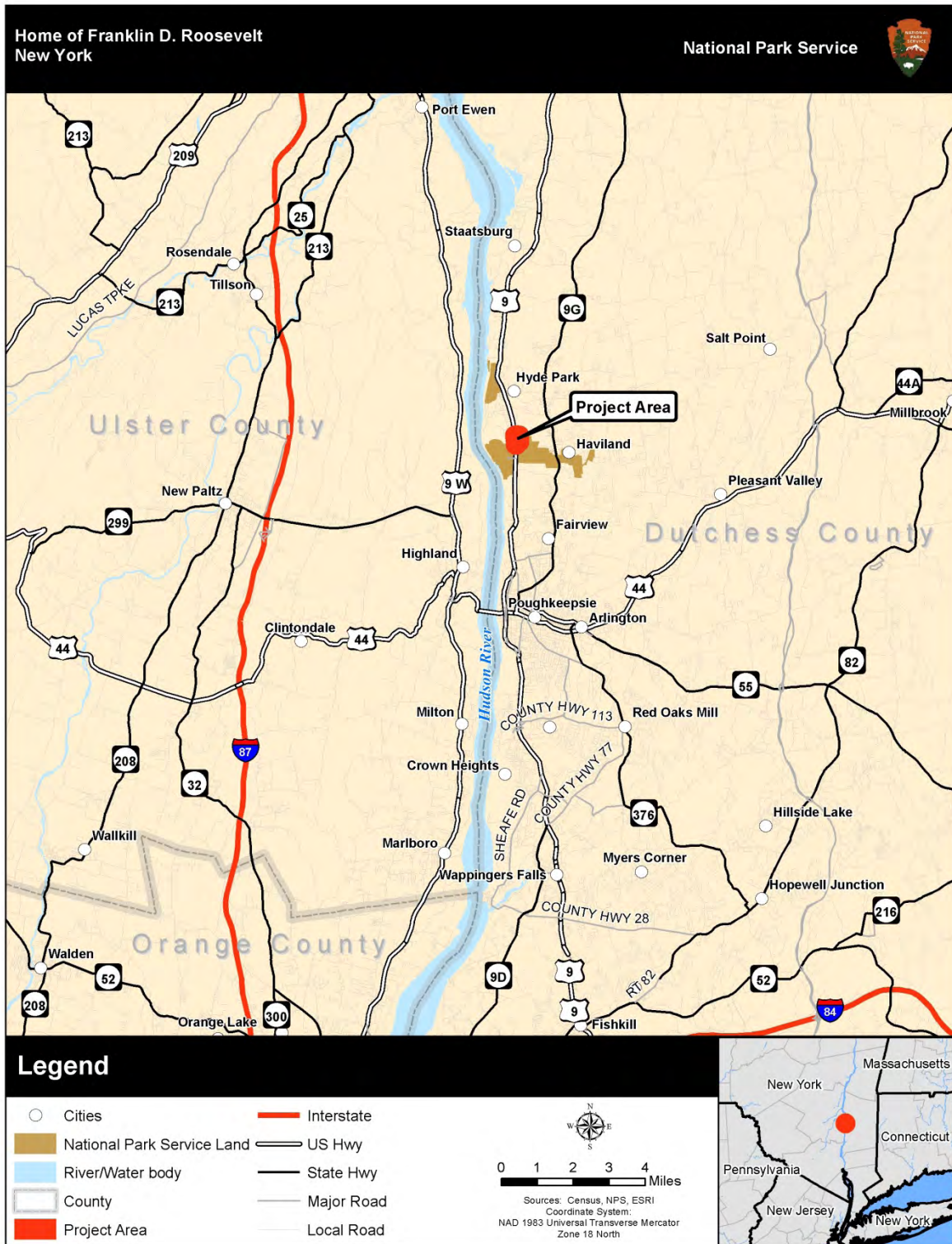


FIGURE 1: REGIONAL MAP

PROJECT BACKGROUND

Hyde Park contains numerous historic homes and picturesque landscapes. Most notable among them are the three NPS historic sites, collectively managed and known as the Roosevelt-Vanderbilt NHS, including the following:

- The Home of FDR NHS, which preserves FDR’s Springwood mansion, most of the western Roosevelt estate, the Top Cottage home built in anticipation of FDR’s retirement years, and the joint gravesites for Franklin D. Roosevelt, the only four-term president of the United States and a pivotal figure of the 20th Century, and his wife, Eleanor, a person of immense domestic and international influence in her own right.
- The Eleanor Roosevelt NHS, including her Val-Kill home, where she lived after the President’s death in 1945 and which commemorates the life and work of this outstanding woman in American history.
- The Vanderbilt Mansion NHS, which represents and illustrates the period of the Gilded Age in the economic, sociological, and cultural history of the United States.

The rehabilitation of Roosevelt Farm Lane began as part of a larger effort in 2000 when the Scenic Hudson Land Trust, Inc. purchased former Roosevelt estate lands across from the Home of FDR NHS to protect them from incompatible development. Community leaders, organizations, and local residents came together in a series of facilitated sessions to discuss how best to preserve and use these historic properties. The discussions led to a concept to develop a regional transportation and information center (provisionally called the “Hudson Valley Welcome Center”) and to rehabilitate a 1.6-mile historic farm route (“Roosevelt Farm Lane”) to accommodate pedestrians, bicyclists, and a seasonal shuttle (NPS 2007).

The completion of Roosevelt Farm Lane rehabilitation fulfilled the combined needs for a connecting corridor between the two Roosevelt historic sites and for permanent green / open space public access. Roosevelt Farm Lane provides public access for pedestrians and bicycles between the Home of FDR NHS and Eleanor Roosevelt NHS via a continuous route from Springwood to Val-Kill. Roosevelt Farm Lane is accessible all year for hiking and winter season cross-country skiing or snowshoeing activities. Bicycle use is permitted from March through November. The trail has been very popular with visitors, often exceeding the existing available trailhead parking area (NPS 2007).

PURPOSE AND SIGNIFICANCE OF THE PARK

The Home of FDR NHS was conveyed to the federal government by the President in 1943. The “Deed of Gift” required that, “...the property be maintained as a National Historic Site in a condition as nearly as possible approximating the condition of the residence and grounds prevailing at the expiration of the life estate of Franklin D. Roosevelt, as hereinafter reserved.” On January 15, 1944, the estate was designated a National Historic Site by Interior Secretary Harold Ickes (NPS 2005).

PURPOSE

The purpose of the site is to preserve and interpret the birthplace, lifelong home, and memorial gravesite of President Franklin D. Roosevelt, so that current and future generations can appreciate the life and legacy of the longest-serving U.S. president—a man who led the nation through the two great crises of the 20th Century, the Great Depression and World War II (NPS 2010h).

SIGNIFICANCE

The Home of FDR NHS, together with the adjoining FDR Presidential Library and Museum, is the best place to understand the influences that helped shape the personality, values, and world view of the U.S. President who, in a time of deep national crisis, redefined the role of the federal government to provide more security and opportunity for its citizens and who led the nation into an era of profoundly greater involvement in world affairs. The unparalleled assemblage of resources preserved here—the home and birthplace, gravesite, gardens, greenhouses, landscaped grounds, outbuildings, farmland, forests, farm roads, trails, views, furnishings and memorabilia, and the adjacent presidential library and its collections—offers unrivaled insight into the life and legacy of the 32nd U.S. President, who profoundly influenced the world in which we live (NPS 2010h).

RELATIONSHIP TO LAWS, EXECUTIVE ORDERS, POLICIES, AND OTHER PLANS

The NPS is governed by laws, regulations, and management plans before, during, and after any management action considered under any NEPA analysis. The following are those that are applicable to the proposed action.

APPLICABLE FEDERAL LAWS AND EXECUTIVE ORDERS

National Environmental Policy Act, 1969, as Amended

Passed by Congress in 1969, NEPA took effect on January 1, 1970. This legislation established U.S. environmental policies, including the goal of achieving productive harmony between human beings and the physical environment for present and future generations. It provided the tools to implement these goals by requiring that every federal agency prepare an in-depth study of the impacts of “major federal actions having a significant effect on the environment” and alternatives to those actions and required that each agency make that information an integral part of its decisions. NEPA also requires that agencies make a diligent effort to involve the interested members of the public before they make decisions that affect the environment.

NEPA is implemented through Council on Environmental Quality (CEQ) regulations (40 CFR 1500–1508) (CEQ 1978). The NPS has in turn adopted procedures to comply with the act and the CEQ regulations, as found in Director’s Order 12: Conservation Planning, Environmental Impact Analysis, and Decision-making (NPS 2001), and its accompanying handbook.

National Historic Preservation Act of 1966, as Amended through 2000 (16 U.S. Code [USC] 470)

The NHPA protects buildings, sites, districts, structures, and objects that have significant scientific, historic, or cultural value. The act established affirmative responsibilities of federal agencies to preserve historic and prehistoric resources. Effects on properties that are listed in or eligible for the National Register of Historic Places (NRHP or National Register) must be taken into account in planning and operations. Any property that may qualify for listing in the NRHP must not be inadvertently transferred, sold, demolished, substantially altered, or allowed to deteriorate. Section 106 requires of the NHPA federal agencies to take into account the effects of their undertakings on historic properties and afford the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment. The historic preservation review process mandated by Section 106 is outlined in regulations issued by ACHP. Revised regulations (Protection of Historic Properties (36 CFR 800)) became effective January 11, 2001.

Archeological Resources Protection Act

The *Archeological Resources Protection Act* was enacted in 1979. The act prohibits unauthorized excavation on federal and Indian lands, establishes standards for permissible excavation, prescribes civil and criminal penalties, requires agencies to identify archeological sites, and encourages cooperation between federal agencies and private individuals.

Historic Sites Act of 1935

This act declares as national policy the preservation for public use of historic sites, buildings, objects, and properties of national significance. It authorizes the Secretary of the Interior and NPS Director to restore, reconstruct, rehabilitate, preserve, and maintain historic or prehistoric sites, buildings, objects, and properties of national historical or archeological significance.

National Park Service Organic Act of 1916

By enacting the NPS *Organic Act* of 1916, Congress directed the U.S. Department of Interior and the NPS to manage units “to conserve the scenery and the natural and historic objects and wildlife therein and to provide for the enjoyment of the same in such a manner and by such a means as will leave them unimpaired for the enjoyment of future generations” (16 USC 1). Despite this mandate, the *Organic Act* and its amendments afford the NPS latitude when making resource decisions that balance resource preservation and visitor recreation.

Redwood National Park Act of 1978, As Amended

All national park system units are to be managed and protected as parks, whether established as a recreation area, historic site, or any other designation. This act states that the NPS must conduct its actions in a manner that would ensure no “derogation of the values and purposes for which these various areas have been established, except as may have been or shall be directly and specifically provided by Congress.”

National Parks Omnibus Management Act of 1998

The *National Parks Omnibus Management Act* (16 USC 5901 et seq.) underscores NEPA and is fundamental to NPS park management decisions. NEPA and the *National Parks Omnibus Management Act* provide direction for articulating and connecting the ultimate resource management decision to the analysis of impacts, using appropriate technical and scientific information. Both acts also recognize that such data may not be readily available and provide options for resource impact analysis should this be the case.

The *National Parks Omnibus Management Act* directs the NPS to obtain scientific and technical information for analysis. The NPS handbook for Director’s Order 12 states that if “such information cannot be obtained due to excessive cost or technical impossibility, the proposed alternative for decision would be modified to eliminate the action causing the unknown or uncertain impact, or other alternatives would be selected” (NPS 2001).

Endangered Species Act

The *Endangered Species Act* (ESA) was enacted in 1973 with the purpose to protect endangered and threatened species and to provide a means to conserve their ecosystems. The law is administered by the U.S. Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration,

National Marine Fisheries Service. Any federal agency action that may affect endangered, threatened, or proposed species must be evaluated in consultation with these two agencies. The federal agency involved must work to conserve listed species and make sure that their actions do not jeopardize the continued existence of a listed species. Development of a plan to modify a federal project is developed in conjunction with the USFWS and the National Marine Fisheries Service so minimal impact would occur to listed species and their habitat.

Clean Water Act; Section 404

Section 404 of the *Clean Water Act* regulates the placement of dredged and fill material into waters of the United States. The act authorizes the issuance of permits from the U.S. Army Corps of Engineers (USACE) for such discharges as long as the proposed activity complies with environmental requirements specified in Section 404(b)(1) of the act. To grant a permit, the USACE must weigh the need to protect aquatic resources against the benefits of the proposed development. The USACE policy requires applicants to avoid impacts to waters of the United States and wetlands to the extent practicable, then minimize the remaining impacts, and finally take measures to compensate for unavoidable impacts.

A Joint Federal/State Application for the alteration of any Floodplain, Waterway, Tidal or Nontidal Wetland in New York would be submitted and applicable permits obtained from the New York State Department of Environmental Conservation (NYSDEC) and the USACE prior to initiating work. All regulated activities within waters of the United States and waters of the State, including the 100-year floodplain and jurisdictional wetlands, would be conducted in accordance with permit conditions and Article 24 of the Environmental Conservation Law New York States regulating freshwater wetlands.

Americans with Disabilities Act and Architectural Barriers Act Guidelines

Pursuant to the *Americans with Disabilities Act* of 1990 (ADA) and the *Architectural Barriers Act* of 1968, all public buildings, structures, and facilities must comply with specific requirements related to architectural standards, policies, practices, and procedures that accommodate people with hearing, vision, or other disability, and other access requirements. Public facilities and places must remove barriers in existing buildings and landscapes, as necessary and where appropriate. The NPS must comply with *Architectural Barriers Act* Accessibility Standard as well as ADA standards for this project, as historic properties are not exempt from ADA requirements. To the greatest extent possible, historic buildings must be as accessible as non-historic buildings. However, it may not be possible for some historic properties to meet the general accessibility requirements. NPS Preservation Brief 32 addresses the complex issue of providing accessibility at historic properties and underscores the need to balance accessibility and historic preservation. The brief provides guidance on making historic properties accessible while preserving their historic character.

Executive Order 11990: Protection of Wetlands

This executive order directs the NPS to avoid to the extent possible the long- and short-term adverse impacts associated with the destruction or modification of wetlands and to avoid direct or indirect support of new construction in wetlands wherever there is a practicable alternative.

NATIONAL PARK SERVICE MANAGEMENT POLICIES AND DIRECTOR'S ORDERS

The *NPS Management Policies 2006* (NPS 2006) is the basic NPS-wide policy document, adherence to which is mandatory unless specifically waived or modified by the NPS Director or certain departmental officials, including the U.S. Secretary of Interior. Actions under this EA are in part guided by these management policies. Sections which are particularly relevant to this project are as follows.

Section 1.4: The Prohibition on Impairment of Park Resources and Values

By enacting the *NPS Organic Act* of 1916 (Organic Act), Congress directed the U.S. Department of Interior and the NPS to manage units “to conserve the scenery and the natural and historic objects and wildlife therein and to provide for the enjoyment of the same in such a manner and by such a means as will leave them unimpaired for the enjoyment of future generations” (16 USC § 1). Congress reiterated this mandate in the *Redwood National Park Expansion Act* of 1978 by stating that NPS must conduct its actions in a manner that will ensure no “derogation of the values and purposes for which these various areas have been established, except as may have been or shall be directly and specifically provided by Congress” (16 USC 1a-1).

NPS Management Policies 2006, Section 1.4.4, explains the prohibition on impairment of park resources and values:

While Congress has given the Service the management discretion to allow impacts within parks, that discretion is limited by the statutory requirement (generally enforceable by the federal courts) that the Park Service must leave park resources and values unimpaired unless a particular law directly and specifically provides otherwise. This, the cornerstone of the Organic Act, establishes the primary responsibility of the Nation Park Service. It ensures that park resources and values will continue to exist in a condition that will allow the American people to have present and future opportunities for enjoyment of them.

The NPS has discretion to allow impacts on park resources and values when necessary and appropriate to fulfill the purposes of a park (NPS 2006 sec. 1.4.3). However, the NPS cannot allow an adverse impact that would constitute impairment of the affected resources and values (NPS 2006 sec 1.4.3). An action constitutes an impairment when its impacts “...would harm the integrity of park resources or values, including the opportunities that otherwise would be present for the enjoyment of those resources or values” (NPS 2006 sec 1.4.5). To determine impairment, the NPS must evaluate “the particular resources and values that would be affected; the severity, duration, and timing of the impact; the direct and indirect effects of the impact; and the cumulative effects of the impact in question and other impacts” (NPS 2006 sec 1.4.5). A determination on impairment for the preferred alternative evaluated in this EA is provided in appendix B.

Section 5.3.1, Protection and Preservation of Cultural Resources

The NPS will endeavor to protect cultural resources against overuse, deterioration, environmental impacts, and other threats without compromising the integrity of cultural resources.

Section 5.3.5.4, Historic and Prehistoric Structures

The treatment of historic and prehistoric structures will be based on sound preservation practice to enable the long-term preservation of a structure’s historic features, materials, and qualities. There are three types of treatment for extant structures: preservation, rehabilitation, and restoration.

Section 8.2.5.1, Visitor Safety

The NPS strives to protect human life and provide for injury-free visits. As a result, the NPS will apply national safety codes and standards to prevent injuries or recognizable threats to visitor safety and will reduce or remove known hazards. Examples of visitor safeguards include the installation of artificial lighting or paved walking surfaces.

Section 9.1.2, Accessibility for Persons with Disabilities

The NPS will provide accessible facilities and resources in a manner that is consistent with preserving park resources and providing visitor safety and high-quality visitor experiences. The policy states that “in most instances, the degree of accessibility provided will be proportionately related to the degree of human-made modifications in the area surrounding the facility and the importance of the facility to people visiting or working in the park.”

Director’s Order 12: Conservation Planning, Environmental Impact Analysis, and Decision Making and Handbook

NPS Director’s Order 12 and its accompanying handbook (NPS 2001) lay the groundwork for how the NPS complies with NEPA. Director’s Order 12 and the handbook set forth a planning process for incorporating scientific and technical information and establishing a solid administrative record for NPS projects.

NPS Director’s Order 12 requires that impacts to park resources be analyzed in terms of their context, duration, and intensity. It is 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 understanding and interpretation by resource professionals and specialists. Director’s Order 12 also requires that an analysis of impairment to park resources and values be made as part of the NEPA document.

Director’s Order 28: Cultural Resource Management

Director’s Order 28 (NPS 1998b) calls for the NPS to protect and manage cultural resources in its custody through effective research, planning, and stewardship and in accordance with the policies and principles contained in the *NPS Management Policies 2006* (NPS 2006). This order also directs the NPS to comply with the substantive and procedural requirements described in the *Secretary of the Interior’s Standards and Guidelines for Archeology and Historic Preservation*, the *Secretary of the Interior’s Standards for the Treatment of Historic Properties with Guidelines for Treatment of Cultural Landscapes*, and the *Secretary of the Interior’s Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring and Reconstructing Historic Buildings*. Additionally, the NPS would comply with the 2008 NPS Programmatic Agreement with the ACHP and the National Conference of State Historic Preservation Officers (NPS 2008a). The accompanying handbook to this order addressed standards and requirements for research, planning, and stewardship of cultural resources as well as the management of archeological resources, cultural landscapes, historic and prehistoric structures, museum objects, and ethnographic resources.

Director’s Order 42: Accessibility for Visitors with Disabilities in National Park Service Programs and Services

Director’s Order 42 (NPS 2000) approaches the issue of accessibility in a comprehensive, organized way, rather than on a project-by-project basis. The primary goal of the program is to develop and coordinate a system-wide, comprehensive approach to achieving the highest level of accessibility that is reasonable, while ensuring consistency with the other legal mandates of conservation and protection of the resources that the NPS manages. Since 1980, the NPS has been working with accessibility coordinators in each regional office and in parks and program offices to (1) assess the level of accessibility of various parks; (2) identify the barriers to accessibility; (3) develop policies and guidelines regarding appropriate methods and techniques for improving access; and (4) provide technical assistance and in-service training on effective approaches and program implementation. The NPS employs the principles of universal design in providing facilities for everyone, rather than for only a portion of the population, including

those persons with invisible disabilities such as cardiac and respiratory problems; those who have temporary disabilities such as broken arms or legs; and parents with strollers and wheeled devices.

Natural Resources Management Reference Manual NPS-77

The purpose of this document is to provide guidance to park managers for all planned and ongoing natural resource management activities. Managers must follow all federal laws, regulations, and policies. This document provides the guidance for park management to design, implement, and evaluate a comprehensive natural resource management program (NPS 2004a).

PARK PLANS AND POLICIES

2010 General Management Plan

A General Management Plan provides park managers with the direction, goals, and objectives for making decisions on park operations. A General Management Plan was completed in 2010 for the Roosevelt-Vanderbilt NHS which will be used to guide and develop management actions. Any proposals in this EA must be consistent with the General Management Plan. The General Management Plan aims to rehabilitate the historic character of park resources which will focus on the landscape, rehabilitation of existing features, and reconstruction of missing landscape features (NPS 2010h). These goals are consistent with the restoration of the pastoral landscape elements contained within this EA.

SCOPING PROCESS AND PUBLIC PARTICIPATION

NEPA regulations require an “early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to a proposed action.” The visitor access improvements are one part of the Hudson Valley Welcome Center project which evolved over several years of collaborative planning by four project partners: the NPS, Scenic Hudson Land Trust, Town of Hyde Park, and the Hudson River Valley National Heritage Area. The development of project concepts and plans included the different aspects of the visitor access improvements and were the subject of 11 facilitated discussions that took place over 7 years (2002-2009) with a group of community leaders and involved stakeholders known as the Bellefield Group (Hayes 2010a).

ISSUES AND IMPACT TOPICS

Issues describe problems or concerns associated with current impacts from environmental conditions or current operations as well as problems that may arise from the implementation of any of the alternatives. Park staff identified potential issues associated with the proposed visitor access improvements during internal scoping. The issues and concerns identified during scoping were grouped into impact topics that are identified in the following section and are evaluated throughout this EA. More specifically, these topics are described in “Chapter 3: Affected Environment” and are analyzed by alternative in “Chapter 4: Environmental Consequences.”

IMPACT TOPICS ANALYZED IN THIS ENVIRONMENTAL ASSESSMENT

CULTURAL RESOURCES

The NHPA (16 USC 470 et seq.), NEPA, *Organic Act*, *NPS Management Policies 2006* (NPS 2006), Director’s Order 12: Conservation Planning, Environmental Impact Analysis, and Decision-making (NPS

2001), and NPS-28: Cultural Resources Management Guideline (NPS 1998b), require the consideration of impacts on any cultural resources that might be affected. The NHPA, in particular, requires the consideration of impacts on cultural resources either listed in, or eligible to be listed in, the NRHP. Cultural resources include archeological resources, cultural landscapes, historic structures and districts, ethnographic resources, and museum collections (prehistoric and historic objects, artifacts, works of art, archival documents, and natural history specimens). Impacts to archeological resources and historic districts and structures are the cultural resource topics analyzed as impact topics in this EA.

Archeological Resources

Ground disturbing activities from implementation of the proposed visitor access improvements and construction of the proposed parking lot and trail spur may impact archeological resources located within the project area. Therefore, this impact topic is analyzed in the EA.

Historic Districts and Structures

Elements of the proposed action include actions which aim to restore the pastoral landscape experienced during the period of significance, which could impact the Home of FDR historic district. As a result, impacts to historic districts and structures are analyzed in this EA.

VISITOR USE AND EXPERIENCE

The addition and improvement of visitor access to Roosevelt Farm Lane at the Home of FDR and Val-Kill would result in impacts on visitor use and experience. Current trailhead parking is limited and pedestrian connectivity between the NHSs is limited. The addition of parking, trail access, and an improved crossing with a signalized intersection would impact visitor accessibility and circulation through the Home of FDR and the Roosevelt-Vanderbilt NHS. As a result of potential impacts to visitor use and experience that could occur from both the no action and action alternatives, this resource area is addressed as an impact topic in this EA.

HUMAN HEALTH AND SAFETY

The addition of a signalized crossing for pedestrians and inclusion of traffic calming measures across Routes 9 and 9G could impact public health and safety. As a result, impacts to human health and safety are addressed as an impact topic in this EA.

VEGETATION

Actions directly related to the proposed visitor access improvements would require the clearing or trimming of mixed deciduous forest and associated vegetation. As a result, this impact topic is carried forward for analysis.

SOILS

Construction of a parking lot, pedestrian crossings, and linkage trail to the existing Roosevelt Farm Lane would result in disturbance and compaction of soils in the area of construction. As a result, this impact topic is carried forward for analysis.

WETLANDS

Field investigations in 2009 identified potentially jurisdictional wetlands within the area of the proposed action. These wetlands could be impacted by the proposed action; therefore, impacts to wetlands are included in the detailed analysis.

WILDLIFE AND WILDLIFE HABITAT

A variety of habitats that support different types of wildlife are present in the vicinity of the Home of FDR. Allowing public access to some of these areas, as well as construction activities, could cause disruption or displacement of wildlife species or alter habitat. Therefore, impacts to wildlife are included in the detailed analysis.

TRANSPORTATION

In the alternative B, the action alternative, a new trailhead and parking area located across Route 9 from the Home of FDR would increase pedestrian movement across Route 9 and increase the number of turns made off of Route 9. A traffic signal with associated traffic calming measures would be provided at the pedestrian crossing on Route 9. In addition, traffic calming measures would also be added on Route 9G where pedestrians will cross from parking areas to access Val-Kill. These proposed management actions could change pedestrian movements and impact traffic; therefore, transportation impacts are analyzed in the EA.

IMPACT TOPICS DISMISSED FROM FURTHER ANALYSIS

The following impact topics were eliminated from further analysis in this EA. A brief rationale for dismissal is provided for each topic. Potential impacts to these resources would be none or negligible, localized, and most likely immeasurable.

WATER QUALITY

The 1972 *Federal Water Pollution Control Act*, as amended by the *Clean Water Act* of 1977, is a national policy to restore and maintain the chemical, physical, and biological integrity of the nation's waters, enhance the quality of water resources, and to prevent, control, and abate water pollution. The NPS *Management Policies 2006* provides direction for the preservation, use, and quality of water originating, flowing through, or adjacent to park boundaries. There is a small intermittent stream within the project area, but it would not be impacted by the proposed action. The proposed parking lot would include the construction of a parking lot, however the parking lot would be constructed with pervious paving materials. Additional measures to protect water quality would include silt fencing along the wetland and stream crossings, as well as along the tree line to the east of the drive-in theater where the project area is close to the stream. As a result of these mitigations, impacts to water quality would be negligible; therefore, the impact topic was dismissed from further analysis.

AIR QUALITY

The 1963 *Clean Air Act*, as amended (42 USC 7401 et seq.), requires federal land managers to protect air quality in national parks. During construction, local air quality would be temporarily affected by dust and vehicle emissions. Hydrocarbons, nitrogen oxide, and sulfur dioxide emissions would be rapidly dissipated by air drainage since air stagnation is uncommon at the project site. Overall, there would be a slight and temporary degradation of local air quality due to dust generated from construction activities,

but these effects would be localized and negligible. The park's current level of air quality would not be affected by the proposed project; therefore, this impact topic was dismissed from further analysis.

FLOODPLAINS

Executive Order 11988: Floodplain Management, requires an examination of impacts to floodplains and the potential risk involved in placing facilities within floodplains. The NPS *Management Policies 2006*, Section 4.6.4, Floodplains and NPS Director's Order 77-2: Floodplain Management Guidelines, provide guidelines on developments proposed in floodplains. Based on current floodplain mapping provided by the Federal Emergency Management Agency, the project area is not within a designated floodplain; therefore, floodplains were not addressed as an impact topic in this EA.

VISUAL RESOURCES (AESTHETICS AND VIEWSHEDS)

Impacts to visual resources are discussed under the Historic Structures and Districts impact topic in this EA. As a result, visual resources were dismissed as an individual impact topic.

CULTURAL RESOURCES

Cultural Landscapes

According to NPS-28, Cultural Resources Management Guideline (NPS 1998b), a cultural landscape is

...a reflection of human adaptation and use of natural resources and is often expressed in the way land is organized and divided, patterns of settlement, land use, systems of circulation, and the types of structures that are built. The character of a cultural landscape is defined both by physical materials, such as roads, buildings, walls, and vegetation, and by use reflecting cultural values and traditions.

The project area is not an official cultural landscape and is not listed on the National Register of Historic Places. Impacts to the historic character of the area are analyzed under the Historic Structures and Districts impact topic; therefore, cultural landscapes was dismissed as an impact topic.

Ethnographic Resources

Ethnographic resources are defined by the NPS as any "site, structure, object, landscape, or natural resource feature assigned traditional, legendary, religious, subsistence or other significance in the cultural system of a group traditionally associated with it" (NPS 1998b). In this analysis, the NPS term "ethnographic resource" is equivalent to the term "Traditional Cultural Property" which is more widely used in cultural resource management. Guidance for the identification of ethnographic resources is found in National Register Bulletin 38, Guidelines for Evaluating and Documenting Traditional Cultural Properties (NPS 1998a). The key considerations in identifying traditional cultural properties are their association with cultural practices or beliefs of a living community that are rooted in the community's history and are important in maintaining the continuing cultural identity of the community (NPS 1998a). There are no properties that meet the definition of a traditional cultural property within the area of potential effects; therefore, this impact was dismissed from further consideration.

Museum Objects

Implementation of any alternative would have no effect on museum objects (historic artifacts, natural specimens, and archival and manuscript material); therefore, museum objects were dismissed as an impact topic.

PARK OPERATIONS AND MANAGEMENT

The proposed action would include the addition of a parking lot and trailhead, which could potentially increase maintenance and law enforcement responsibilities, especially for snow removal. However, this increase would be negligible and would not impact future staffing, as the projected maintenance costs for the proposed parking lot would be approximately \$15,000 annually, or 0.003 percent of the annual 4 million dollar budget (Hayes 2010b). Operation of a tram service on the weekends from June through October would be approximately \$13,350, and additional 0.003 of the annual budget (Olson 2011). As a result, park operations and management was dismissed as an impact topic.

UNIQUE ECOSYSTEMS, BIOSPHERE RESERVES, WORLD HERITAGE SITES

There are no known biosphere reserves, World Heritage Sites, or unique ecosystems listed at the Roosevelt-Vanderbilt management unit or specifically at the Home of FDR, therefore the impact topic was dismissed from further analysis.

THREATENED AND ENDANGERED SPECIES

Plants and animals federally classified as endangered or threatened are protected under the ESA of 1973, as amended. The USFWS is responsible for the listing of species under the ESA. Federally listed species are afforded legal protection under the act; therefore, sites supporting these species need to be identified.

The USFWS has identified two federally listed species that routinely occur in the vicinity of the project area: the endangered Indiana bat (*Myotis sodalis*) and the threatened bog turtle (*Clemmys muhlenbergii*) (see “Appendix A: Agency Consultation Letters”). In support of the proposed action, threatened and endangered species habitat assessments were conducted to determine possible habitat for the bog turtle and Indiana bat in the project area and immediate vicinity.

There are two federally listed species with the potential to occur within the project area. During fall 2011, field surveys were completed for the bog turtle and the Indiana bat habitat. During these surveys, no suitable bog turtle habitat was found to exist in the project area (NPS 2010f).

A habitat assessment was conducted in October 2010 to identify forested habitat within the project area that may contain potential roost trees used by the Indiana bat (NPS 2010g). Field reconnaissance identified and documented potential roost trees within the project area using guidance from the *Indiana Bat Draft Recovery Plan* (USFWS 2007). Suitable roost trees include any of the following: live shagbark and shellbark hickories with less than 6 inches diameter breast height (dbh); lightning struck trees with less than 6 inches dbh; dead, dying, or damaged trees of any species with less than 6 inches dbh with at least 10 percent exfoliating bark; den or cull trees; and live trees of an species with less than 26 inches dbh. Individual roost tree traits include all of the following: 6 inches dbh; 9 feet in height, if broken or a stump; no overarching tree canopy or understory canopy within 6 feet of tree bole; and tree bole free of vines. Using these guidelines, the habitat assessment identified 17 trees, clustered in 6 locations, within the project area meeting the suitable roost tree criteria.

Site design for construction of the parking lot and spur trail would require the removal of two clusters of suitable roost trees for Indiana bat; the other four locations would be avoided. In total, eight suitable roost trees consisting of black locust, tree of heaven, and sugar maple would be removed. Impacts to the two sites would be mitigated by only allowing tree removals outside of the roosting season, specifically between November 1 and March 1. One additional cluster, which contains two potential roost trees, is located just outside the proposed limit of disturbance. In order to ensure these trees remain, the trees would be flagged in the field so they would not be removed. Based on this analysis, implementation of alternative B is *not likely to adversely affect* Indiana bat. On January 21, 2010, the NPS received concurrence from the USWFS that the project would not affect the bog turtle and would be not likely to adversely affect the Indiana bat (see “Appendix A: Agency Consultation Letters”).

STATE-LISTED SPECIES

NPS *Management Policies 2006* states that potential impacts of an agency’s actions should be considered on state- or locally listed species. The NPS sent the NYSDEC a letter describing the proposed actions to improve visitor access to Roosevelt Farm Lane at the Home of FDR NHS and requesting information regarding any species of concern recorded within the project area.

The NYSDEC, in response, identified several potential rare or state-listed species and ecological communities that occur or may occur in the project area or in the immediate vicinity. State-listed species include Blanding’s turtle (*Emydoidea blandingii*) and swamp cottonwood (*Populus heterophylla*), and ecological communities include Rocky Cedar Summit and Hemlock Northern Hardwood Forest.

The two community types were evaluated against the current vegetation map and were determined to not occur within the project area. The NPS evaluated the project area for Blanding’s turtle and swamp cottonwood and found that the area does not contain appropriate habitat for either species. In a response dated January 11, 2011, the NYSDEC stated that Wetland AB could provide potential habitat for the swamp cottonwood and requested the area be surveyed during the growing season (May through September). Although Wetland AB would not be impacted by the proposed construction, the NPS will comply with this request (see “Appendix A: Agency Consultation Letters”). Based on these findings, this impact topic was dismissed from further analysis in this EA.

LAND USE

The existing land use within Roosevelt-Vanderbilt would not change as a result of implementation of the proposed action; therefore, the impact topic was dismissed from further analysis.

SOCIOECONOMICS

NEPA requires an analysis of impacts to the human environment, which includes economic, social, and demographic elements in the affected area. Construction activities associated with the proposed actions may bring a short-term need for additional personnel at the site, but this addition would be minimal and would not affect the surrounding community’s overall population, income, and employment base. The proposed action would not appreciably impact local businesses or other agencies. Implementation of the proposed action could provide a beneficial impact to the economies of nearby areas (e.g., minimal increases in employment opportunities for the construction workforce and revenues for local businesses and government generated from construction activities and workers). Any increase, however, would be negligible. Therefore, socioeconomics was dismissed as an impact topic.

ENVIRONMENTAL JUSTICE

On February 11, 1994, President Clinton issued Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations. This order directs agencies to address environmental and human health conditions in minority and low-income communities to avoid the disproportionate placement of any adverse impacts from federal policies and actions on these populations. Local residents may include low-income populations, but these populations would not be particularly or disproportionately affected by activities associated with the visitor access improvements at the Home of FDR; therefore, this impact topic was dismissed from further analysis in this EA.

CHAPTER 2: ALTERNATIVES

INTRODUCTION

NEPA requires federal agencies to explore a range of reasonable alternatives aimed at addressing the purpose of and need for the proposed action. The alternatives under consideration must include the “no action” alternative as prescribed by CEQ regulations for implementing NEPA (40 CFR 1502.14).

The action alternative analyzed in this document, in accordance with NEPA, is based on preliminary design and the result of internal scoping and public scoping. This alternative, described in this section, meets the overall purpose of and need for proposed action. Alternatives that were considered but were not technically feasible, did not meet the purpose and need of the project, created unnecessary or excessive adverse impacts to cultural or natural resources, or conflicted with the overall management of the park or its resources were dismissed from further analysis and are also described in this chapter.

The NPS explored and objectively evaluated two alternatives in this EA, including

- Alternative A: No Action
- Alternative B: Access and Trailhead Improvements

The description of alternative B is based on preliminary designs and information available at the time of this writing. Specific distances, areas, and layouts used to describe the alternative are estimated based on good engineering practice and may change during the actual design. If changes during any approved design are not consistent with the intent and effects of the selected alternative, additional compliance may be required prior to project implementation to ensure that NEPA guidelines are met.

DESCRIPTION OF ALTERNATIVES

ALTERNATIVE A: NO ACTION

Alternative A, the no action alternative, is the continuation of current management. It does not imply or direct discontinuing the present action or removing existing uses, developments or facilities. The no action alternative provides a baseline of existing conditions and actions and provides a basis for evaluating the changes and impacts of the action alternatives. If the no action alternative were to be selected, the NPS would respond to future needs and conditions without substantial change in current management direction or management practices.

Under alternative A, visitors would continue to use the existing six-car trailhead parking for the Farm Lane trail located near the Golden Manor hotel on Route 9, with an additional eight-car parking lot available on Route 9G for a total of 14 total available spots. The connection between the Eleanor Roosevelt Val-Kill Estate and the Home of FDR Springwood Estate, visitor center, and library would continue to be the Farm Lane trail, but with limited parking and the existing pedestrian crossings across Route 9 and 9G, which include a flat crossing with stamped pavement. There are no traffic lights or additional safety features at either location.

Alternative A would not result in active management of the pastoral landscape and would not restore the lot to the agricultural field maintained during the property’s period of significance. The Hyde Park drive-in would continue to use the existing entrance and exit routes and the stone wall features throughout the property would not be restored. Figure 2 displays the existing trailhead parking along Route 9.



FIGURE 2: EXISTING ROOSEVELT FARM LANE ROUTE 9 TRAILHEAD PARKING

ALTERNATIVE B: ACCESS AND TRAILHEAD IMPROVEMENTS

Alternative B proposes to improve access to the Roosevelt Farm Lane, the Home of FDR, and Eleanor Roosevelt's Val-Kill home. A map of the project area, location of Home of FDR and Val-Kill, existing Roosevelt Farm Lane trail, and proposed improvements are provided in figure 3.

Access and trailhead improvements under alternative B would include construction of a new 40-space parking lot along Route 9, south of the existing drive-in theater, in order to provide additional trailhead parking for Roosevelt Farm Lane to support the desired visitation. Several parking lot layout options were considered, but in order to minimize potential impacts to Indiana bat habitat, one layout was selected for full analysis. The proposed parking lot layout is shown in figure 4.

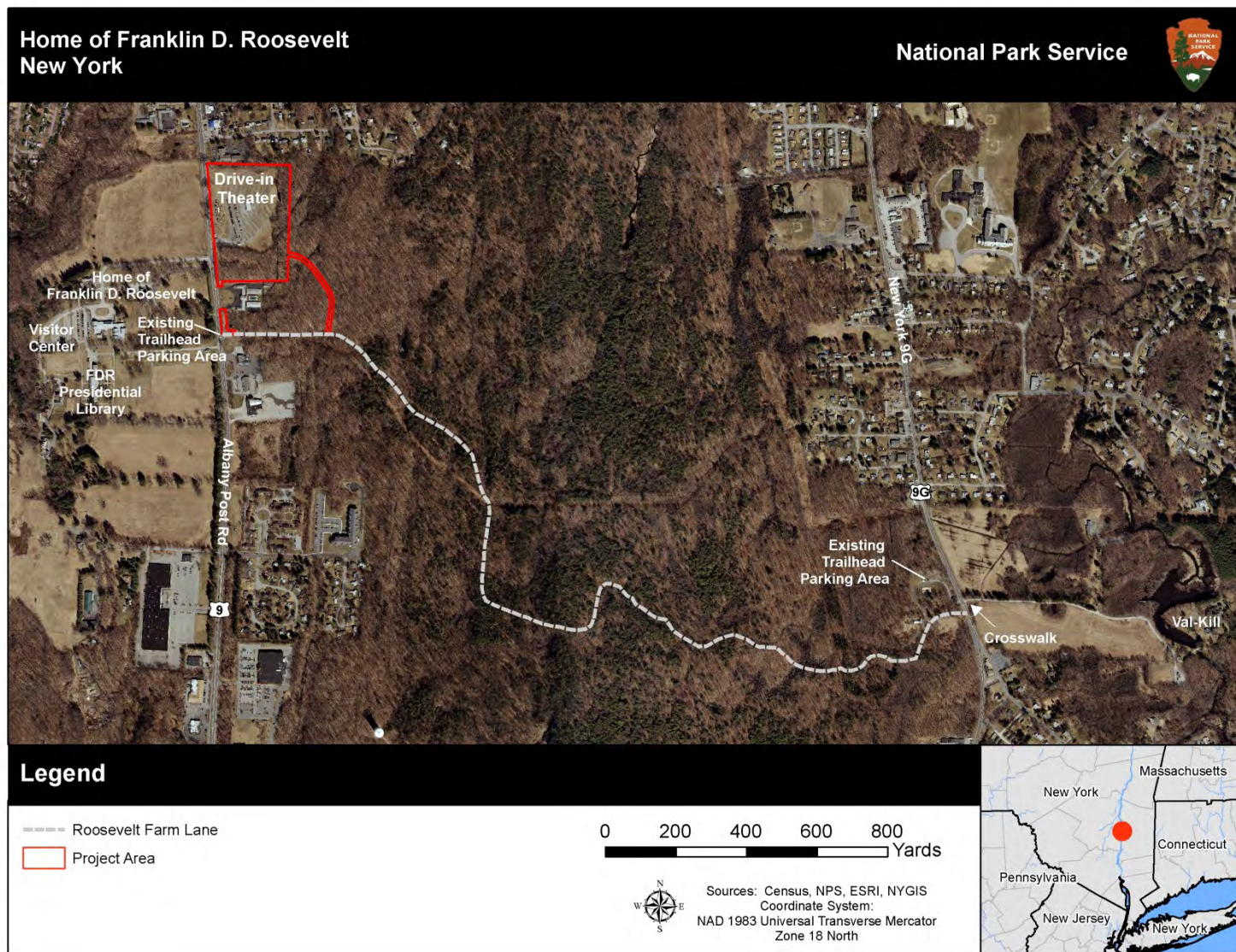


FIGURE 3: PROJECT VICINITY

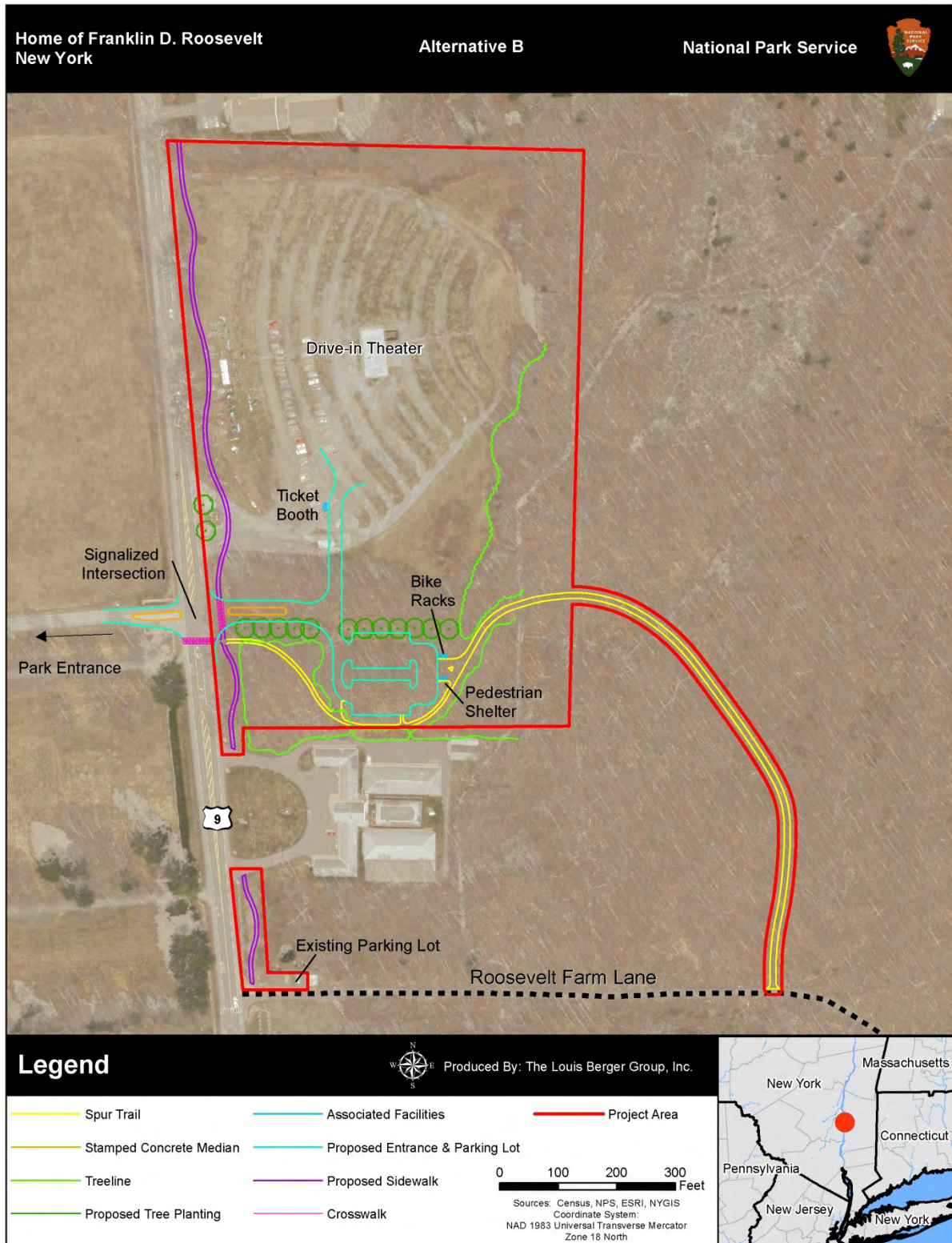


FIGURE 4: ALTERNATIVE B LAYOUT

As demonstrated in figure 4, alternative B would include a trail spur from the parking lot to Roosevelt Farm Lane, providing a connection to that trail. The trail spur would be a multi-use trail designed to accommodate pedestrians, bicycles, a tram and emergency vehicles; the trail spur would be able to withstand loading similar to Roosevelt Farm Lane. The trail surface would be compacted gravel where the grade is 8 percent or less. On any sections with grade of 8 percent or more, an asphalt base with chip and seal topcoat would be installed to provide a sustainable solution to erosion risks. The NPS currently uses a tram, similar to a golf cart, to transport visitors internally throughout the sites. In the future, the NPS would like to use the tram system to provide guided interpretive programs on Roosevelt Farm Lane, to provide programming to mobility-impaired visitors and to transport visitors between the Wallace Visitor Center, Route 9 and Route 9G trailheads. The length of the spur trail would be approximately 1,000 feet. For the spur trail, a corridor would be cleared of trees at the minimum width to accommodate construction of a 10-foot trail. The goal would be for the spur trail to have the same appearance as the existing Roosevelt Farm Lane. Due to the presence of a stream and wetlands, one trail bridge and one boardwalk would be constructed to minimize adverse impacts to wetlands.

Additionally, a pedestrian crossing would be improved where Roosevelt Farm Lane ends at Route 9G (see figure 3), allowing visitors to safely cross Route 9G to and from the Val-Kill property. The pedestrian crossing would include traffic calming measures such as a pedestrian crosswalk sign with base in the middle of the roadway, advanced crosswalk sign, detectable warning tile, yellow pavement markings, and raised bulb-outs on both sides of the crossing. Bulb-outs, or curb extensions, extend the sidewalk, reducing the crossing distance for pedestrians and also forcing motorists to slow down in order to pass through the narrower roadway section. In order to continue a pedestrian path across Route 9G, removal of a portion of the existing stone wall on the east side of the roadway would be required.

For pedestrians crossing Route 9, alternative B would include a traffic-actuated signalized intersection at the entrance to the proposed parking lot and the existing park entrance. The newly configured Route 9 intersection would be controlled by a traffic signal that would be actuated by vehicles entering and exiting the Henry A. Wallace Visitor and Education Center and new parking lot, as well as pedestrian crossing actuation. The use of a traffic-actuated signal would minimize disruption to Route 9 traffic. This alternative would include a four-way intersection with the existing entrance to the Home of FDR visitor center (Wallace Center) entrance lined up opposite a new entrance that would serve the Hyde Park drive-in theater and proposed Roosevelt Farm Lane Trailhead and parking lot. The existing crosswalk south of the Wallace Center entrance would be removed and relocated to the new four-way intersection.

The proposed entrance and parking lot would be pervious asphalt pavement. Alternative B also would include the removal of the entrance to the existing Hyde Park drive-in theater situated just north of the Wallace Center on the east side of Route 9 and closure of the existing Roosevelt Farm Lane parking lot and entrance. The existing gravel parking lot would be removed and reseeded. Deciduous trees would be planted along the entrance road to reduce the visual impacts of the parking lot. The Hyde Park drive-in theater would continue to operate as a leaseholder in accordance with the terms of the lease. The existing traffic signal located at the north end of the drive-in theater would be removed.

The proposed improvements would include the removal of the existing ticket booth at the drive-in theater in order to accommodate the new entrance for the theater. A new ticket booth would be installed along the new entryway. Additional visitor accommodations would include a bike rack, informational kiosk, and pedestrian shelter to the east of the parking lot and a sidewalk constructed along the eastern side of Route 9. A small structure would be constructed to store and recharge the tram. The current Hyde Park drive-in theater sign and associated stone wall would be retained in place or relocated to the new entrance. An additional NPS identification sign would be installed at the entrance, 100 feet inside the Route 9 right-of-way to comply with a deed restriction. The location of both crossings is available in figure 3.

In addition to the parking lot, pedestrian crossings, and trail spur, portions of the pastoral landscape of the property would be restored to its period of significance. Historically, FDR's estate included woodlots and agricultural fields in a landscape that was actively managed. The Route 9 corridor was lined with agricultural fields divided by dry-laid stone walls. Woodlots bordered the agricultural fields to the east. After FDR's death, his property was subdivided and many parcels were sold. The Route 9 corridor then had an influx of retail and commercial development, including the drive-in theater, on these parcels (Zick 2010).

Since that time development pressures have escalated, with many of FDR's fields becoming building sites, parking lots, or housing. Other fields have been left fallow and secondary plant succession has caused the open fields to become forest.

Scenic Hudson Land Trust Inc. acquired parcels within the corridor to preserve the landscape and prevent development. As part of the proposed project at the Hyde Park drive-in theater site, the suburban appearance and materials, such as stockade fencing, turf grass, and similar features would be removed to make way for open meadow or hay field divided into smaller fields with reconstructed dry-laid stone walls. Deteriorated stone walls bordering the east side of Route 9 would be restored and a four-foot berm would be created between Route 9 and the drive-in theater to reduce the visibility of the parking lot. To the extent possible, the secondary plant succession would be held in check, and some of these emerging wooded areas would be cleared to better restore the agricultural fields (Zick 2010).

Construction activities would be expected to last approximately 6 months. The Home of FDR and Val-Kill properties, as well as Roosevelt Farm Lane would remain open during construction.

MITIGATION MEASURES OF THE ACTION ALTERNATIVE

The NPS places a strong emphasis on avoiding, minimizing, and mitigating potentially adverse environmental impacts. To help ensure the protection of natural and cultural resources and the quality of the visitor experience, the following protective measures would be implemented as part of the selected action alternative. The NPS would implement an appropriate level of monitoring throughout the construction process to help ensure that protective measures are being properly implemented and are achieving their intended results.

HISTORIC DISTRICTS AND STRUCTURES

- Maintain existing evergreen and deciduous trees and deciduous trees along the edges of the new parking to shield view of parking lot.

ARCHEOLOGICAL RESOURCES

- Develop and implement a program of construction monitoring to document archeological resources during the construction phase of the project.
- Stop work should any significant archeological resources be identified during construction until NPS archeologists have evaluated the resources. The appropriate measures would be undertaken to document or mitigate impacts.

VISITOR USE AND EXPERIENCE

- Avoid construction during peak visitor use periods (e.g., weekends, holidays) to avoid disruption for visitors.

HUMAN HEALTH AND SAFETY

- Develop a safety plan prior to initiation of construction to ensure the safety of park visitors, workers, and park personnel.
- Ensure that all overhead and subsurface utilities are clearly identified on project plans and in the field where appropriate.
- Place construction fencing at the entrance to the spur trail from Farm Lane during construction to discourage visitors from entering the construction site.

VEGETATION

- Minimize cutting trees whenever possible.
- Clearly note vegetation clearing limits on construction documents and mark them in the field to minimize disturbance and alteration of vegetation and wildlife habitat.
- Maintain existing evergreen and deciduous trees and deciduous trees along the edges of the new parking area. Reseed disturbed areas, including the existing parking lot.

SOILS

- Reduce or minimize adverse impacts to soils by employing best management practices, including silt fencing, to prevent and control soil erosion and sedimentation during construction and operation of the trail.

WETLANDS

- Maintain appropriate erosion and siltation controls during construction, and permanently stabilized all exposed soil or fill material at the earliest practicable date.
- Avoid heavy equipment use in wetlands if at all possible. Place heavy equipment used in wetlands on mats, or take other measures to minimize soil and plant root disturbance and to preserve preconstruction elevations.
- Place excavated material on an upland site whenever possible. However, when this is not feasible, place temporarily stockpiled excavated material in wetlands on filter cloth, mats, or some other semipermeable surface, or take comparable measures to ensure that underlying wetland habitat is protected. Stabilized the material with straw bales, filter cloth, or other appropriate means to prevent reentry into the waterway or wetland.
- Remove temporary stockpiles in wetlands in their entirety as soon as practicable. Return wetland areas temporarily disturbed by stockpiling or other activities during construction to their preexisting elevations, and restore soil, hydrology, and native vegetation communities as soon as practicable.
- Facilitate revegetation of disturbed soil areas by salvaging and storing existing topsoil and reusing it in restoration efforts in accordance with NPS policies and guidance. Topsoil storage must be for as short a time as possible to prevent loss of seed and root viability, loss of organic matter, and degradation of the soil microbial community.

- Obtain native plant material where plantings or seeding are required and used in accordance with NPS policies and guidance. Implement management techniques to foster rapid development of target native plant communities and to eliminate invasion by exotic or other undesirable species.
- Consider minimizing shade impacts, to the extent practicable, in designing boardwalks and similar structures. (Placing a boardwalk at an elevation above the vegetation surface at least equal to the width of the boardwalk is one way to minimize shading.)

WILDLIFE AND WILDLIFE HABITAT

- Conduct tree removal outside of Indiana bat roosting season, specifically between November 1 and March 1.

TRANSPORTATION

- None.

ALTERNATIVES CONSIDERED BUT DISMISSED

Several alternatives or alternative elements were identified during the design process and internal and public scoping. Some of these were determined to be unreasonable, or much less desirable than similar options included in the analysis, and were dismissed from further analysis.

ROUTE 9 ROUNDABOUT WITH PEDESTRIAN CROSSING

This alternative element included the construction of a roundabout as a traffic calming measure in the area of the proposed Route 9 intersection. The size of the roundabout would have been determined in accordance with Federal Highway Administration guidelines and would have required a double lane to accommodate current Route 9 traffic volumes. The roundabout would have been constructed on historic NPS and Scenic Hudson Land Trust, Inc. property. This alternative was dismissed due to excessive construction costs and because it does not address the pedestrian crossing needs for the intersection (Erdman and Anthony 2010).

ROUTE 9 TRAM CROSSING WITH BULB-OUTS AT ROOSEVELT FARM LANE

This alternative involved the construction of a tram crossing with bulb-outs. The crossing would have been located at the southern loop of the existing Bellefield Mansion driveway and connected to the existing Roosevelt Farm Lane trailhead parking lot along Route 9. This location was chosen based on the 2008 suggestion from the Department of Transportation to separate tram traffic from pedestrian traffic (Erdman and Anthony 2010). The alternative was dismissed because it did not meet the NPS goal to eliminate the existing Roosevelt Farm Lane trailhead parking lot and the corresponding curb cut, and to relocate the parking lot across from the park entrance.

TUNNEL UNDER ROUTE 9 FOR PEDESTRIAN AND TRAM TRAFFIC

This alternative included the option of building a pedestrian tunnel beneath Route 9. The alternative was dismissed because of potential impacts to archeological resources in the project area and excessive construction costs (Erdman and Anthony 2010).

ADDITIONAL PARKING LOT LAYOUTS

Three additional parking lot layouts were initially considered as alternative options. In October 2010, a survey was conducted for federally listed Indiana bat habitat. As a result of that survey, an additional parking lot layout was proposed to avoid as much habitat as feasible. Due to potential impacts to the Indiana bat habitat, the three original parking lot layouts were dismissed.

ENVIRONMENTALLY PREFERRED ALTERNATIVE

The NPS is required to identify the environmentally preferred alternative in its NEPA documents for public review and comment (DO-12 Handbook, Sect. 4.5 E(9)). The environmentally preferred alternative is defined by the Council on Environmental Quality in their NEPA's Forty Most Asked Questions: "The environmentally preferable alternative is the alternative that will promote the national environmental policy as expressed in NEPA's Section 101. 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 B is the environmentally preferred alternative because it best achieves the criteria listed above in comparison to the no action alternative. Alternative B provides the widest range of beneficial uses of the environment without degradation, and preserves and promotes important aspects of our national heritage by improving the visitor safety for Roosevelt Farm Lane as visitors cross Route 9 and Route 9G, avoiding potential roosting habitat for the federally-listed Indiana bat while leaving as many existing trees in place as possible to accommodate access and trailhead improvements, and minimizing impacts to wetlands. Additionally, alternative B aims to restore elements of the pastoral landscape by restoring meadows, reseeding the existing parking lot, and constructing a berm to help obscure the view of the parking lot, reducing impacts to the historic district. Table 1 is a summary of environmental consequences.

TABLE 1: SUMMARY OF ENVIRONMENTAL CONSEQUENCES

Impacted Resource	Alternative A: No Action	Alternative B: Access and Trailhead Improvements
Historic Districts and Structures	No impacts to historic districts and structures No cumulative impacts	Long-term, negligible to minor adverse and long-term beneficial impacts Long-term, minor adverse and long-term beneficial cumulative impacts
Archeological Resources	No impacts to archeological resources No cumulative impacts	Potential to result in long-term, negligible adverse impacts Long-term, negligible adverse cumulative impacts
Visitor Use and Experience	Long-term, minor adverse impacts Long-term, negligible adverse cumulative impacts	Short-term, minor adverse and long-term, beneficial impacts Long-term, beneficial cumulative impacts
Human Health and Safety	Long-term, moderate adverse impacts Long-term, moderate adverse cumulative impacts	Long-term beneficial impacts Long-term, beneficial cumulative impacts
Vegetation	Long-term negligible adverse impacts Long-term, negligible to minor adverse cumulative impacts	Short-term, negligible and long-term minor adverse impacts; long-term beneficial impacts Long-term, negligible to moderate adverse cumulative impacts
Soils	No impacts to soils No cumulative impacts	Short-term, negligible to minor and long-term, minor adverse impacts; long-term beneficial impacts Long-term, negligible to minor adverse cumulative impacts
Wildlife and Wildlife Habitat, including Threatened and Endangered Species	Short-term, negligible adverse impacts; long-term beneficial impacts No affect to threatened and endangered species Short-term, negligible adverse cumulative impacts	Short-term, negligible to minor adverse impacts and long-term negligible to minor adverse impacts. Not likely to adversely affect the Indiana bat, no affect to the bog turtle Long-term, minor adverse cumulative impacts
Wetlands	No impacts to wetlands No cumulative impacts	Short- and long-term, negligible adverse impacts Long-term, negligible to minor and adverse cumulative impacts
Transportation	Long-term, negligible to moderate adverse impacts Long-term, minor adverse cumulative impacts	Short-term, minor adverse and long-term, beneficial impacts Long-term, beneficial cumulative impacts

CHAPTER 3: AFFECTED ENVIRONMENT

This chapter describes existing environmental conditions in the areas potentially affected by the alternatives evaluated. This section describes the following resource areas: cultural resources, including historic districts and structures and archeological resources; visitor use and experience; human health and safety; vegetation; soils; wetlands; wildlife and wildlife habitat; and transportation. Potential impacts are discussed in the “Environmental Consequences” chapter in the same order.

CULTURAL RESOURCES

Cultural resources for federal agency planning and environmental review purposes are primarily those resources that qualify for the NRHP as well as those addressed by certain other laws protecting archeological sites and Native American properties. The NHPA, as amended, is the principal legislative authority for managing cultural resources associated with NPS projects. Generally, Section 106 of the NHPA, as amended, and as implemented in 36 CFR 800, requires all federal agencies to consider the effects of their actions on cultural resources listed and/or determined eligible for listing in the NRHP. Such resources are also termed “historic properties.”

Moreover, the federal agency must afford the ACHP the opportunity to comment in the event that an undertaking will have an adverse effect on a cultural resource that is eligible for or listed in the NRHP, and must consult with the State Historic Preservation Officer (SHPO) and other interested parties in an effort to avoid, minimize, or mitigate adverse effects.

Eligibility for the NRHP is established according to the official Criteria of Evaluation (36 CFR 60.4) issued by the Department of the Interior. The criteria relate to the following:

The quality of significance in American history, architecture, archeology, engineering, and culture present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and:

- That are associated with events that have made a significant contribution to the broad patterns of our history; or
- That are associated with the lives of persons significant in our past; or
- That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- That has yielded, or may be likely to yield, information important in prehistory or history.
- A historic property can be considered significant under one or more of the criteria.

Regulations implementing NHPA require the NPS, as the federal agency responsible for the undertaking, to assess, in consultation with the SHPO and/or Tribal Historic Preservation Officer (THPO), to take into account the impact of the undertaking on historic properties within a specified area of potential effects. The NPS has proposed that the area of potential effects for the undertaking should be areas where ground disturbing activities would be expected from the proposed construction of the parking lot, the spur trail, and the pedestrian crossings at Route 9 and Route 9G in consultation with the New York SHPO.

HISTORIC DISTRICTS AND STRUCTURES

The NPS defines historic structures as “a constructed work, usually immovable by nature or design, consciously created to serve some human activity” (NPS 1998b). Examples are buildings of various kinds, monuments, dams, roads, railroad tracks, canals, millraces, bridges, tunnels, locomotives, nautical vessels, stockades, forts and associated earthworks, Indian mounds, ruins, fences, and outdoor sculpture. A historic district is defined in the NRHP as: “a geographically definable area, urban or rural, possessing a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united by past events or aesthetically by plan or physical development. A district may also comprise individual elements separated geographically but linked by association or history” (NPS 2004b).

James Roosevelt, Sr., FDR’s father, purchased the Wheeler estate property east of the Hudson River and west of Albany Post Road in 1867 (Nowak 2005). He named his new home “Springwood” and set about expanding his holdings with three purchases creating the Roosevelt Estate Farm, known as the Home Farm. The first of these purchases, the Boreel Place or the “Red House,” stretched from the Hudson River across Albany Post Road to just east of Maritje Kill. He bought this land in 1868 and gave it to his son, James “Rosy” Roosevelt, Jr. (FDR’s half-brother), in 1887 (Mead 2000). Roosevelt, Sr. bought the Bracken Place on the east side of Albany Post Road in 1871, and with the purchase of the Kirchner property to the south by 1886, the estate inherited by FDR was complete (Auwaerter 2003).

James Roosevelt made several modifications to the house and added many outbuildings between 1867 and his death in 1900. After his father’s death, FDR lived at Springwood with his mother, Sara Roosevelt, and renovated or added several structures, gardens, and other designed landscapes (primarily trees) to the estate through the mid 1940s.

The Home of FDR NHS was formally listed as a historic district in the National Register on October 15, 1966 and updated in 1980. In 1980 it consisted of 264.51 acres and 40 historic structures. Its historic significance is its connection with events and a person of national (and global) importance. The area of significance for the NHS is Architecture and Politics/Government. The periods of significance are 1800–1824, 1875–1899, 1900–1924, and 1925–1949. The periods of significance roughly correspond to the various periods of ownership plus the later historical and political periods of FDR’s lifetime. The buildings and structures within the historic district are listed in appendix C.

The Eleanor Roosevelt NHS was listed as a district in the NRHP on March 20, 1980. Its historic significance is its connection with events and a person of national (and international) importance. The area of significance for the NHS is Social History and Politics/Government. The periods of significance are 1900–1924, 1925–1949, and 1950–1974. Included in the NHS are the Val-Kill Cottage, gardens, and grounds. Eleanor Roosevelt’s Val-Kill (Dutch for “valley stream”) was once the Roosevelt family retreat. The main building at Val-Kill was originally a furniture factory (NPS 2010a). Eleanor Roosevelt chose Val-Kill for her retreat, her office, her home, and her “laboratory” for social change during the prominent and influential period of her life from 1924 until her death in 1962 (NPS 2010b).

In addition to the NRHP, the NPS maintains a more comprehensive List of Classified Structures. Properties included in the List of Classified Structures are either listed in or eligible for the NRHP and are to be treated as cultural resources by law, policy, or decision reached through the planning process even though they do not meet all NRHP requirements. The 69 structures listed at Home of FDR NHS and the 20 structures at Eleanor Roosevelt NHS are included in appendix C.

The pastoral landscape, as exemplified by the farm, forest, and open space elements listed in the table provided in appendix C, is the context and setting for the period(s) of significance for the Home of FDR NHS historic district.

ARCHEOLOGICAL RESOURCES

Archeological resources consist of “any material remains or physical evidence of past human life or activities which are of archeological interest, including the record of the effects of human activities on the environment. An archeological resource is capable of revealing scientific or humanistic information through archeological research” (NPS 2006).

Archeologists have generally divided the vast expanse of New York culture history into five general periods (LBG 2011):

- Paleoindian (12,000 to 9500 years before present [BP]) – small, highly mobile bands that traveled and hunted through large territories, focusing on post-Pleistocene megafauna; sites located in New York tend to be quarry-related activity areas, small base camps, and isolated kill sites, plus isolated finds with Clovis-type fluted stone projectile (spear or dart) points, assorted scrapers, graters, and drills.
- Archaic (9500 to 3000 BP) – divided into three subperiods: Early (9500 to 7000 BP), Middle (7000 to 323 5500 BP), and Late (5500 to 3000 BP); still mobile groups characterized by hunting, fishing, and gathering a diverse range of animal and plant forms; utilization of a broader spectrum of resources fostered expansion of the toolkit, including projectile (dart) points, adzes, axes, drills, mortars and pestles, netsinkers, and hammerstones; evidence of grinding and polishing soapstone to make bowls and other cultural items.
- Woodland (3000 to 500 BP) – divided into three subperiods: Early Woodland (3000 to 1700 BP), Middle Woodland (1700 363 to 1200 BP), and Late Woodland (1200 to 500 BP); characterized by move to sedentary or semisedentary lifestyle, with residential sites, and an annual pattern of seasonal movement between riverine, coastal, and inland sites; mortuary complexity with cremations, bundle burials, and flex burials including red ochre, cache blades, gorgets, tubular pipes, and copper objects, as well as utilitarian items such as hafted bifaces, other bifacial tools, adzes, celts, bone tools, carbonized nets, and basketry; introduction of ceramic vessels and bow and arrow; rise of agriculture and dependence on maize.
- Contact (500 to 300 BP) – characterized by larger semipermanent village sites, consisting of oval and round houses and large pits, located in the interior near planted fields; also by seasonal hunting and gathering, focusing on streams and major watercourses in the spring and fall for the seasonal fish runs; Native groups gradually became dependent on trade with the Europeans; tribal and clan affiliations were affected, and much of the native population was depopulated or displaced.
- Historic (300 BP to present).

The first three subdivisions (Paleoindian, Archaic, and Woodland) are thought to represent Native American cultural adaptation to changing climatic conditions since the arrival of humans in the New York region around 12,000 years ago—the time of transition from the Pleistocene (Ice Age) to the Holocene (modern) epoch. The region’s natural environment and geomorphology have greatly influenced the nature of Native American settlement, land use, and cultural development. One important factor in the interpretation of New York prehistory is the impact of glaciation on the topographic and hydrologic conditions in the area since the end of the Pleistocene.

Most of the archeological sites in the proposed project area are pre-Contact (i.e., before A.D. 1600) and consist of small, sparse lithic (stone tool and debris) scatters. These sites were likely the location of brief, transient occupations where people came to take advantage of the numerous wetlands that cover the local landscape. Wetlands were rich sources for a variety of animals, including fish, fowl, and numerous plants.

Wetlands reliably produced these varied resources throughout the year (Nicholas 1991). People probably came to these areas for thousands of years from larger camps along the Hudson River. Although the remains are scant and these occupations were small, their ubiquity indicates the importance of this landscape to the people of the region.

European exploration of the Hudson River dates back to the early seventeenth century as boats sailed up the river to find the legendary Northwest Passage. The Dutch ruled the colony of New York until 1664, when the British took over. In 1697 the Great Nine Partner's Patent resulted in the division of much of present-day Dutchess County. Within this larger patent the Lower Nine Partners Patent encompassed much of the Hyde Park area. Early settlers in the Hyde Park area remained along the Hudson River, the major transportation route at the time. By the 1730s people were settling the area in substantial numbers, creating an agrarian farming community. Interior areas, such as the present-day Home of FDR NHS to the west, remained forested and uncultivated, and people did not begin to subdivide and settle these eastern portions of the township until the early nineteenth century (Harmon et al. 2006; Nowak 2005).

Archeological research on the grounds of the Home of FDR NHS has uncovered the remains of several structures dating to the eighteenth century, including builder's trenches, trash dumps, and over two dozen structural features, including an apparent bone button manufacturing facility (Keck 2004). In the fall of 2010, the NPS sponsored a Phase I archeological survey within the project area that consisted of both a surface survey and subsurface testing to determine the presence of buried cultural material (LBG 2011). The area of potential effects was considered the areas where ground disturbing activities would be expected from the proposed construction of the parking lot, the spur trail, and the pedestrian crossings at Route 9 and Route 9G.

The results of the 2010 Phase I investigations revealed that the majority of the project area does not appear to have sustained significant ground disturbance. (Disturbed portions of the project area include the existing paved/gravel entry to the drive-in theater, as well as the deteriorated drive-in theater exit located at the northwest corner of the area of potential effects.) Areas of pre-Contact and historical archeological sensitivity were identified throughout undisturbed portions of the area of potential effects, including the undeveloped wooded area south of the existing Hyde Park drive-in theater entry road in the area of the proposed parking area, paths, signage, plantings and other infrastructure; the proposed connector path located between the welcome center parking area and the existing Roosevelt Farm Lane; and the connector road between the parking area and the drive-in theater. During the subsurface testing, no cultural material was uncovered (LBG 2011).

VISITOR USE AND EXPERIENCE

The Home of FDR NHS hosts approximately 120,000 visitors annually. In 2009, there were 123,033 recorded visitors to the site (NPS 2010d). Visitors come to enjoy the historical significance of the site, which includes the lifelong home of America's only four-term President (NPS 2010e). The site is located in Hyde Park, New York, along the Hudson River. Visitors to the site often visit the entire Roosevelt-Vanderbilt management unit, which also includes Eleanor Roosevelt's Val-Kill property and the Vanderbilt Mansion.

In addition to Springwood, FDR's lifelong home, the site includes the FDR Presidential Library and Museum, and the Henry A. Wallace Visitor and Education Center. Visitors have a number of options when touring the site, included guided tours of the FDR Home, orientation films and exhibits, the self-guided FDR Presidential Library and Museum, periodic special events, landscape tours, environmental education programs, trail podcasts, and two gardens. Over 14 miles of hiking trails are available in the Hyde Park area (NPS 2010e).

In 2008, the NHS completed the rehabilitation of Roosevelt Farm Lane, a 1.6-mile trail connecting Val-Kill with the Springwood estate which FDR would use to travel between his home and his wife's property. The trail has been popular with visitors and parking often exceeds capacity. Visitor use of Roosevelt Farm Lane was 20,675 in 2009 and 16,018 in 2010 (Hayes 2011).

HUMAN HEALTH AND SAFETY

The NPS is committed to providing high quality opportunities for visitors and employees to enjoy parks in a safe and healthy environment. Furthermore, the NPS strives to protect human life and provide for injury-free visits. Safety applies to both park visitors and park employees.

A visitor incident is defined as an unintentional event or mishap affecting any person, other than an NPS employee, that results in serious injury or illness requiring medical treatment. In this particular project area, visitor incidents have statistically been related to an accidental fall or recreational activities (pedestrian, bicycling accidents, etc.).

From May 2009 through July 2010, there were seven visitor safety incidences recorded within the Home of FDR NHS (Hayes 2010c). Two injuries were the result of a fall, two due to a visitor struck by an object, two generally listed as injuries, and one biking injury. Of these seven incidences, five were within the Home of FDR, one was outside of the visitor center, and one was a biking injury along the Farm Lane (Hayes 2010c).

Currently, in order to access either the Val-Kill property or the Home of FDR NHS, visitors on the Farm Lane must use pedestrian crossings at either Route 9 or Route 9G. The speed limit on both of these roadways is 40 mph in the vicinity of the trail and during peak travel times it can be difficult for visitors to cross the roads. Currently there are no sidewalks for pedestrian use along either route.

VEGETATION

Plant communities within the park include forest, shrub, and meadow communities, which are common in the Northeastern United States. The forest community is dominated by oak (spp. *Quercus*), maple (spp. *Acer*), birch (spp. *Betula*), beech (spp. *Fagus*), ash (spp. *Fraxinus*) and sporadic patches of eastern white pine (*Pinus strobus*). The brush communities are an intermediate stage between open field and mature forest and are comprised of pioneer species such as ash, maple and locust (spp. *Gleditsia*). The grass/open field communities consist primarily of timothy (*Phleum pratense*), alfalfa (*Medicago sativa*), red top (*Agrostis gigantea*) and orchard grass (*Dactylis glomerata*). Poison ivy (*Toxicodendron radicans*) is common on recently disturbed, non-cultivated sites (NPS 2005).

Many non-native (exotic) plant species have been introduced to the park and surrounding region. Several of these non-native species, including purple loosestrife (*Lythrum salicaria*) and tree-of-heaven (*Ailanthus altissima*), are invasive species that can rapidly colonize an area and, over time, eliminate native plant species as they grow into largely monocultural stands (NPS 2005).

The area is primarily forested in the vicinity of the proposed trail and portions of the proposed parking lot. The drive-in theater and a portion of the proposed parking lot are located in an open area with a grass field. In addition to the forested areas, the project area includes a red maple swamp, rock outcrops surrounding the red maple swamp and shrub swamps located in the vicinity of the project area.

The northwest portion of the project area, which includes the drive-in theater, has been affected by foot and automobile traffic but vegetative communities still exist. These include timothy, alfalfa, red top grass, and orchard grass. In addition, poison ivy exists in certain parts of the site.

The majority of the remaining area is forested consisting an upland forest, and contains similar species to forested communities found throughout the park. These areas are dominated by oak, maple, birch, beech, ash, and eastern white pine. Specifically, the upland forest consisted of a canopy is dominated by sugar maple (*Acer saccharum*), tree-of-heaven, Norway maple (*Acer platanoides*), green ash (*Fraxinus pennsylvanica*), and black cherry (*Prunus serotina*). Mid-story vegetation is dominated by wisteria (*Wisteria* sp.), multiflora rose (*Rosa multiflora*), common red raspberry (*Rubus idaeus*), tartarian honeysuckle (*Lonicera tatarica*), and fox grape. Herbaceous vegetation within the upland areas includes common mullein (*Verbascum thapsus*), common pokeweed, evening primrose (*Oenothera biennis*), garlic mustard (*Alliaria petiolata*), goldenrod (*Solidago* sp.), mugwort (*Artemisia vulgaris*), Queen Anne's lace (*Daucus carota*), and spotted knapweed (*Centaurea biebersteinii*).

The northeastern portion of the project area is dominated by a red maple swamp, a closed canopy, forested landscape typically located in drainage basins, near seepage discharges on slopes, and adjacent to streams (EPA n.d.). Vegetative species in the canopy include red maple (*Acer rubrum*), swamp white oak (*Quercus bicolor*), gray birch (*Betula populifolia*), and black cherry. Within the subcanopy are red maple and gray birch and shrubs including northern arrowwood (*Viburnum recognitum*), winterberry (*Ilex verticillata*), swamp dewberry (*Rubus hispidus*), and silky dogwood (*Cornus amomum*) (EPA n.d.).

Shrub swamps are primarily found in the southwestern section of the project area, mixed in with the forested community, in the area of the proposed trail. These swamps are often found near adjacent to forested swamps and are similar and may consist of certain species found in forested swamps, except that shrubby vegetation predominates. Vegetative species include button-bush dodder (*Cuscuta cephalanthi*), balsam willow (*Salix pyrifolia*), swamp birch (*Betula pumila*), and red osier dogwood (*Cornus sericea*) (NYNHP 2010).

SOILS

Dutchess County soils are derived primarily from glacial till and outwash, organic matter, and lacustrine and alluvium sediments (sediment deposited by water flowing). Glacial till consists of unstratified, mixed deposits of clay, silt, sand, and rock fragments deposited by glacial ice. Glacial outwash is material swept out, sorted, and deposited beyond the ice front by streams of glacial meltwaters (NPS 2007).

Within the park, soils are relatively young, having formed since the retreat of the last glacier (the Laurentide ice sheet) some 10,000 years ago. The soils are largely derived from various stratified and non-stratified glacial deposits that were laid down over metamorphic and igneous bedrock and have broken down to form soils. Except for floodplain deposits along the Hudson River and other stream and alluvial deposits surrounding the Fall-Kill Creek, the soils of Roosevelt-Vanderbilt NHS are characteristically stony and moderately to well drained (NPS 2005). Much of the area contained within the sites was formerly in agricultural use. While some areas have been in agricultural use since well before the start of the American Revolutionary War, agricultural activity has greatly diminished in the past 50 years. Many areas that once supported crops are now forested or in residential or commercial use but still can be considered prime farmland by the U.S. Department of Agriculture (NPS 2005).

The soil survey of the Hudson Valley shows that four soil types occur in the project area. Listed by their prominence, they include Hoosic gravelly loam (0-2 percent slope, nearly level), Fredon silt loam (0-3 percent slope), Nassau-Cardigan complex (15-30 percent slope, hilly, very rocky), and Hoosic-Urban land complex (0-2 percent slope, nearly level) (USDA 2001). The Hoosic soils are contained within the western portion of the study area, primarily in the area of the drive-in theater and proposed parking lot, while the Fredon loam is found along the proposed trails and the Nassau-Cardigan soil is found in the north-east portion of the study area. Soils occurring in the project area are shown in figure 5.

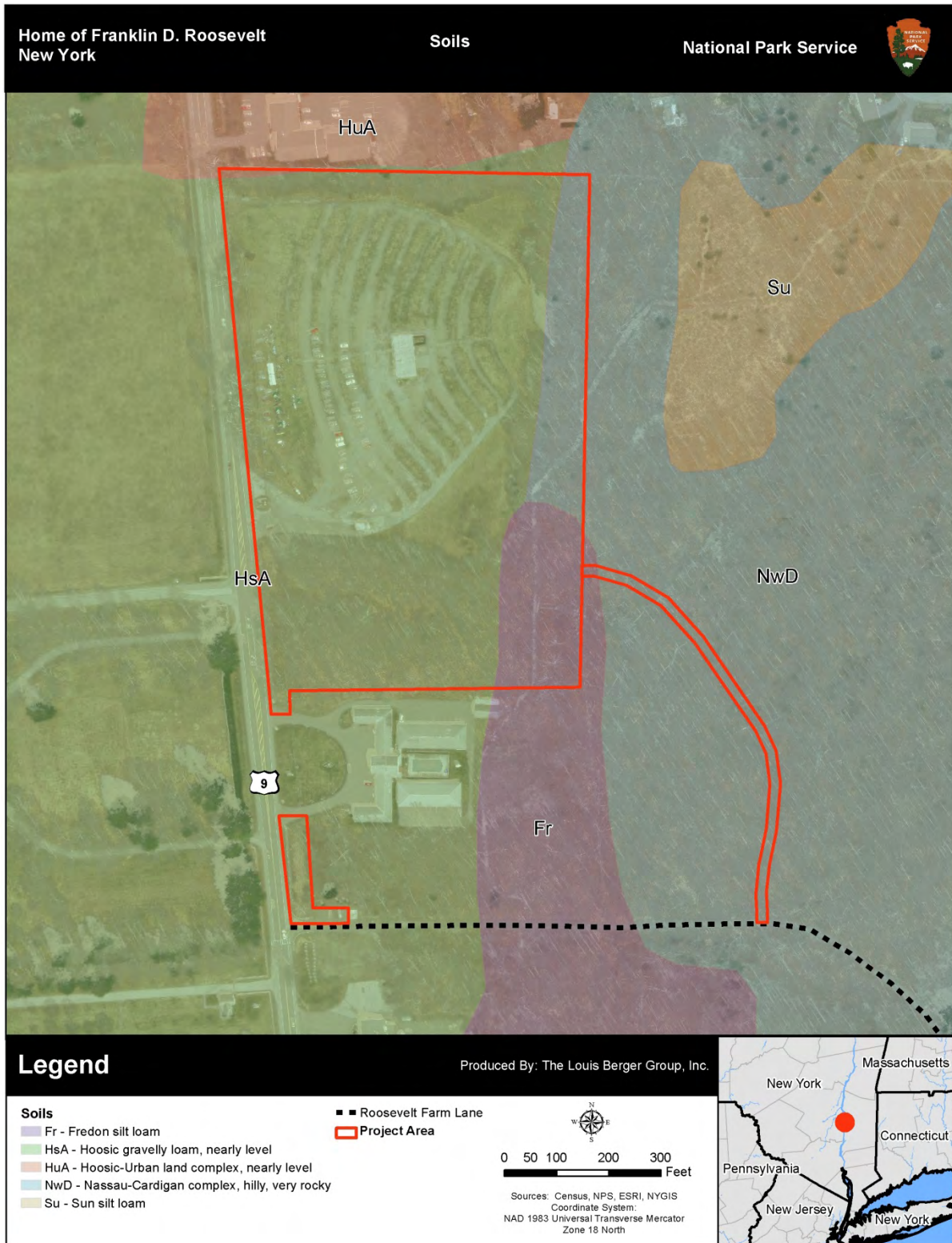


FIGURE 5: SOILS OCCURRING WITHIN THE PROJECT AREA

Hoosic gravelly loam occurs on valley floors and outwash plains, in areas that are irregularly shaped. They consist of very deep, somewhat excessively drained, with slow surface runoff and a slight erosion hazard. Permeability is rapid and moderately rapid in the surface layer and subsoil, very rapid in the substratum. These soils general uses are cropland, pastureland, and residential development or are mined for sand and gravel (USDA 2001).

Fredon silt loam are found on outwash terraces and outwash plains and are very deep, poorly, and somewhat poorly drained soils. Permeability is moderate in the surface layer, moderately slow or moderate in the subsoil, and rapid in the substratum. Erosion hazard is slight and surface runoff is slow. These soils have generally poor potential for uses and have typically been used as woodland, pasture, or cropland (USDA 2001).

Nassau-Cardigan complex consists of shallow, somewhat excessively drained Nassau soils and moderately deep, well-drained Cardigan soils that formed in glacial till deposits. Found on hills and side slopes that are underlain by folded shale bedrock, permeability is moderate and potential for surface runoff is rapid with a severe erosion hazard. Uses are typically woodlands with the possibility of pasture or residential development (USDA 2001).

Hoosic-Urban land complex is very similar to hoosic gravelly loam soils, except that the urban land aspect refers to an area that is covered by buildings, streets, parking lots, and other impervious surfaces that obscure soil identification. The natural layers of the soils typically have been altered through mixing with non-soil materials such as bricks, broken concrete, or cinders. These soils have generally been used as urban or suburban development, with open areas being used as lawns, gardens, and woodland or brushland between structures (USDA 2001).

Soil erodibility within the project area ranges from soils with little hazard of erosion to moderate to soils with severe hazard. Construction of a trail and parking lot on soils with high hazard of erodibility could exacerbate any erosion problems that may currently be occurring.

WETLANDS

Wetlands are areas inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions (USACE 1987). As such, the USACE requires areas dominated by hydrophytic vegetation, contain hydric soils, and display indicators of hydrology to be considered a wetland. The NPS definition of wetlands is similar to that of the U.S. Environmental Protection Agency and USACE; however it is broader than the USACE 404 permit program definition and therefore covers a broader range of wetland habitat types. NPS classifies wetlands based on the USFWS *Classification of Wetlands and Deepwater Habitats of the United States, or the Cowardin classification system* (Cowardin et al. 1979). Based on this classification system, a wetland must have at least one of the following attributes:

- The habitat at least periodically supports predominately hydrophytic (wetland) vegetation
- The substrate is predominately undrained hydric soil
- The substrate is nonsoil and saturated with water, or is covered by shallow water at some time during the growing season (Cowardin et al. 1979).

In 1977, President Carter issued Executive Order 11990: *Protection of Wetlands*. In response to this Executive Order, the NPS issued Director's Order 77-1: Wetland Protection (NPS 2008b). This order directed the NPS to use the USFWS definition and methodology as the standard for identifying,

classifying, and inventorying wetlands when NPS actions have the potential to adversely impact wetlands. The NPS must also comply with Section 404 of the *Clean Water Act* when those actions involve the discharge of dredged or fill materials in wetlands or other “waters of the United States.” As required by Director’s Order 77-1, NPS must avoid adverse impacts on wetlands to the extent practicable, must minimize any impacts that could not be avoided, and must compensate for any remaining unavoidable adverse impacts on wetlands (NPS 2008b).

The USFWS has been tasked with inventorying and mapping all wetlands within the United States. This effort has produced the National Wetlands Inventory (NWI), which is primarily based on a review of aerial photographs, soil surveys, and hydrological data. While the NWI is useful as a preliminary planning tool, it is primarily a product of very limited field verification. As such, inaccuracies are not uncommon, and prior to starting any work, wetland biologists should field corroborate the NWI with site-specific studies, the most accurate of which would be a wetland delineation using the USACE Wetlands Delineation Manual (USACE 1987). Two NWI wetlands are shown in the woodland to the east of the project site; one is a large, palustrine, emergent forested wetland (PF01E in the Cowardin classification system) directly east of the structure on the drive-in theater, and a smaller forested, palustrine wetland further to the southeast. Both of these wetlands have been more accurately delineated in the field.

A field survey was completed to identify wetlands and waterways in the project area, as well as a separate survey to identify potential habitat for the bog turtle, a species listed as federally threatened and endangered in the state of New York that prefers a boggy wetland habitat. A discussion on the bog turtle can be found in the “Wildlife and Wildlife Habitat” section, below. Three wetland areas were found in the study area during these studies: an intermittent stream which flows into the larger of the two palustrine wetlands, and a second smaller palustrine wetland south of the larger wetland and adjacent to the intermittent stream channel. All three of these wetlands are subject to protection measures described in NPS Director’s Order 77-1: Wetland Protection and Procedures (NPS 2008b), although the bulk of the larger wetland is outside of the project area. The smaller palustrine, mostly forested wetland is immediately to the east of the stream and ultimately forms the headwaters for yet another intermittent stream outside of the project area (Wetland BC), and is hydrologically connected to the larger wetland by a manmade channel. The other wetland is a palustrine forested and scrub/shrub wetland in the east central portion of the site (Wetland AB), and corresponds with the larger wetland on the NWI map, and is fed by the intermittent stream that crosses the project area. This wetland is in reality larger than the wetland shown on the NWI maps (NPS 2010f). The location of the wetland areas within the project vicinity are shown in figure 6.

INTERMITTENT STREAM

The intermittent stream begins northeast of the project area and flows generally south-southwest through the project area. The intermittent stream on the site was noted to be in poor quality in the wetland delineation. It occupies approximately 0.2 acre on the project site and is approximately 1200 feet in length in the study area. The functions of this intermittent stream include macroinvertebrate habitat and aesthetics.

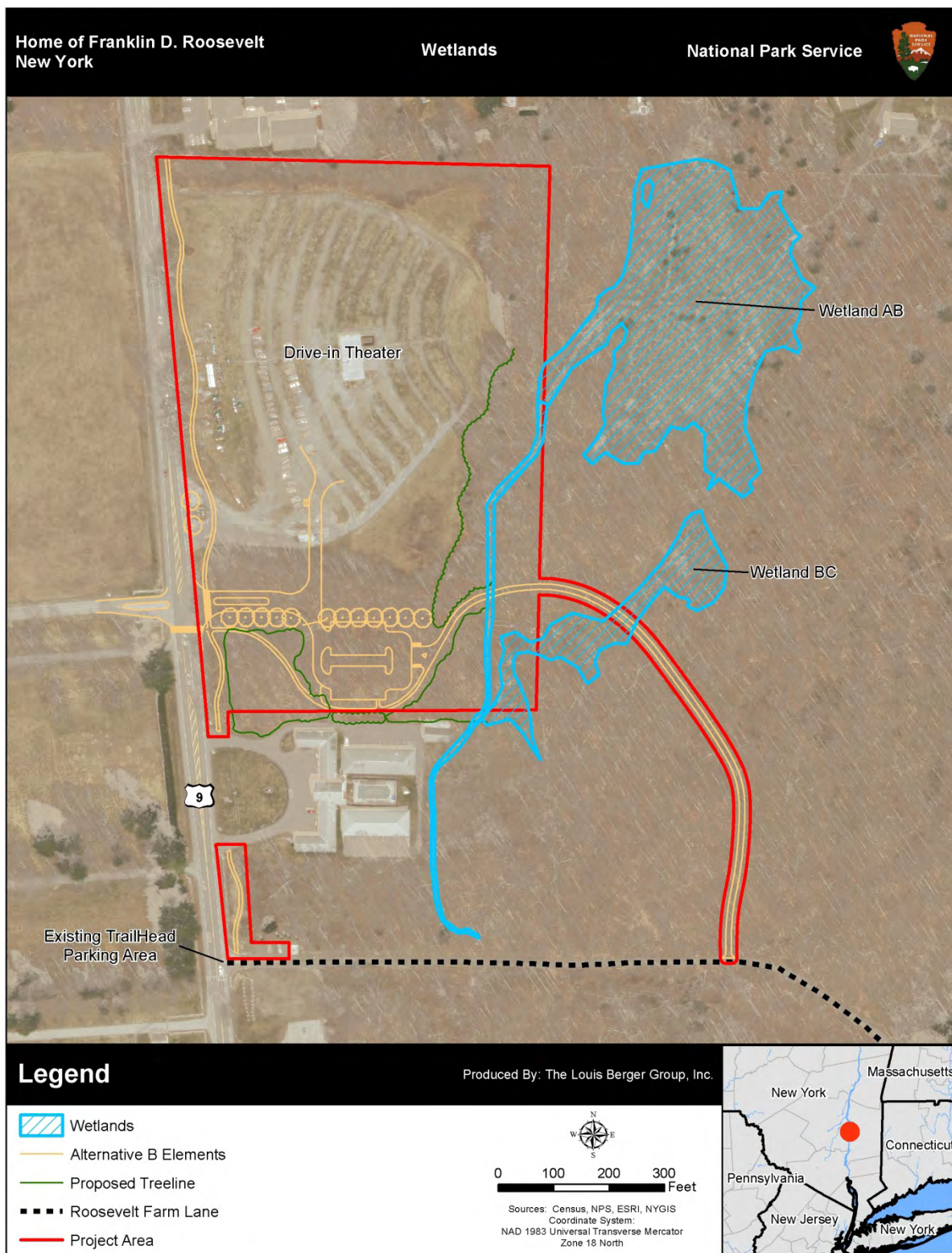


FIGURE 6: DELINEATED WETLANDS WITHIN THE PROJECT VICINITY

WETLAND AB

This palustrine forested and scrub/shrub wetland AB is approximately 2.9 acres (the Bog Turtle Habitat assessment notes that the acreage is closer to 3.59 acres overall) and is in the northern section of the study area, immediately east of the drive-in theater structure. This wetland is fed by the intermittent stream and is considered to be high quality. The wetland continues off the project area to the northeast. This wetland contains mature trees and saplings, with an herbaceous understory, and it is bordered by upland forest. The wetland is supported by surface runoff and there is ponding in various parts of the wetland. The vegetation in this wetland is characterized by red maple (*Acer rubrum*), alder (*Alnus glutinosa*), spicebush (*Lindera benzoin*), swamp white oak (*Quercus bicolor*), tussock sedge (*Carex stricta*), sensitive fern (*Onoclea sensibilis*), woodreed grass (*Cinna arundinacea*), and moss. Green frogs (*Rana clamitans*) were found in this wetland during the bog turtle habitat assessment. The principal functions of the palustrine scrub/shrub wetland include providing habitat for macroinvertebrates, amphibians, and floral species, aesthetics, and groundwater discharge.

WETLAND BC

The smaller mixed wetland is approximately 0.8 acre, and is of average quality. Wetland BC is characterized as a palustrine, forested wetland with broad-leaved deciduous vegetation (PF01 in the Cowardin classification system), and is bordered by forested upland. This wetland is hydrologically connected to the other wetland by a man-made connecting channel, and is supported with surface runoff water. The vegetation in this wetland is characterized by red maple, sycamore (*Platanus occidentalis*), spicebush, and woodreed grass. As with the larger wetland, functions of this wetland include providing habitat for macroinvertebrates and floral species, aesthetics, and groundwater discharge.

WILDLIFE AND WILDLIFE HABITAT

A wide variety of animal species use the area that includes the Home of FDR NHS. Forests, hay fields, herbaceous meadows, orchards, wetlands, streams, ponds, rock ledges, stone walls, and the Hudson River create a wide diversity of habitat creating a unique natural environment.

Terrestrial species commonly found in the area of the Home of FDR NHS include white-tail deer (*Odocoileus virginianus*), eastern coyote (*Canis latrans* var.), bobcat (*Lynx rufus*), red fox (*Vulpes vulpes*), gray fox (*Urocyon cinereoargenteus*), red squirrel (*Sciurus vulgaris*), gray squirrel (*Sciurus carolinensis*), eastern chipmunk (*Tamias striatus*), eastern cottontail rabbit (*Sylvilagus floridanus*), striped skunk (*Mephitis mephitis*), Virginia opossum (*Didelphis virginiana*), and raccoon (*Procyon lotor*) (NPS 2005). Aquatic species occurring in the intermittent stream and wetland areas within the project site include a variety of invertebrates, reptiles and amphibians. A full list of vertebrates known to occur in at the NHS can be found in appendix C of the *Fire Management Plan Roosevelt-Vanderbilt National Historic Sites* (NPS 2005).

TRANSPORTATION

ROADWAY NETWORK

Roosevelt Farm Lane is located between Route 9 (Albany Post Road) and Route 9G (Violet Avenue) in Hyde Park, New York. The Home of FDR NHS and Presidential Library are located at 4097 Albany Post Road, while the Eleanor Roosevelt NHS is located two miles to the east on Route 9G. The Vanderbilt Mansion NHS is also located on Albany Post Road/Route 9, approximately 2 miles north of the Home of FDR NHS. Hyde Park is situated roughly 90 miles north of New York City and 70 miles south of Albany.

Manual traffic counts were performed at the two intersections during the week of October 19, 2008. Counts were taken for the AM, PM and Saturday peak periods, and included pedestrian crossings as well as heavy vehicles. The two intersections were analyzed using the manual traffic counts.

The level of service (LOS) of a signalized intersection is defined in terms of control delay per vehicle (seconds per vehicle). Control delay is the portion of total delay experienced by a motorist that is attributable to the traffic signal. It is composed of initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. The LOS criteria for signalized intersections are provided in table 2.

TABLE 2: SIGNALIZED INTERSECTION LEVEL OF SERVICE CRITERIA

LOS	Control Delay per Vehicle (Seconds Per Vehicle)
A	≤ 10
B	> 10 to 20
C	> 20 to 35
D	> 35 to 55
E	> 55 to 80
F	> 80

Source: NRC 2000.

LOS A describes operations with minimal delays, up to 10 seconds per vehicle, while LOS F describes operations with delays in excess of 80 seconds per vehicle. Under LOS F, excessive delays and longer queues are common as a result of over-saturated conditions (e.g., demand rates exceeding the capacity). Delays experienced at LOS A, B, C, or D (below 55 seconds per vehicle) are generally considered acceptable. LOS E and F represent unacceptable operating conditions.

The results of the LOS analyses are indicated in table 3.

The manual traffic counts were compared with 2006 New York State Department of Transportation (NYSDOT) traffic count data. The counts were projected to 2008 using a growth rate of 0.7 percent per year. In addition, visitation data from NPS were compared with the manual counts. Projected data for the Roosevelt Farm Lane was calculated using the Institute of Transportation Engineers (ITE) Manual for parks. A set of traffic counts was compiled from the projected NYSDOT data, visitation data, projected data for Roosevelt Farm Lane, and the manual counts. The data were analyzed and the results are shown in table 3 under the 2008 Peak heading. NYSDOT also compiled speed data are part of its planning traffic counts.

TABLE 3: LEVEL OF SERVICE ANALYSIS (2008)

Intersection	Route 9 / Home of FDR Entrance				Route 9G/ Val-Kill		
	AM	PM	SAT		AM	PM	SAT
Manual Counts							
Movement				Movement			
North Bound In	B	A	A	North Bound In			
South Bound In				South Bound In	A	B	
Out Left	C	C	B	Out Left	C	E	
Out Right	C	C	B	Out Right	C	E	
2008 Peak							
Movement				Movement			
North Bound In	B	A	B	North Bound In Val-Kill			
South Bound In				South Bound In Val-Kill	A	B	A
Out Left	C	C	C	North Bound in RFL*	A	A	A
Out Right	C	C	C	South Bound in RFL*			
				Out Left Val-Kill	C	F	D
				Out Left RFL*	C	D	D

*RFL = Roosevelt Farm Lane.

Source: Dewkett Engineering 2008.

Analysis of Existing Left Turn Lane

The intersection of Route 9 and the entrance to the Home of FDR NHS includes a left turn lane for northbound traffic into the park. The turn lane is 100 feet long. Based on the LOS analysis, the turning movement experiences a LOS of A or B for all cases analyzed. Those results indicate the turning lane design and storage capacity are adequate. However, NPS reports that during major park events, six or more vehicles are often seen queued at the turning lane. The turning lane length is not sufficient for that queue of vehicles.

PARKING

On-site parking is available at the Home of FDR NHS and the Eleanor Roosevelt NHS. In addition, a limited amount of parking is available at the trailheads at Roosevelt Farm Lane. At the western end of the Farm Lane trail, an existing six-car parking area is located near the Golden Manor hotel on Route 9. An additional eight-car parking area is available at the eastern end of the trailhead off of Route 9G, for a total of 14 parking spaces for the Farm Lane trail. During peak visitation hours these parking areas are often filled to capacity and visitors park on the grass and other non-parking areas.

PUBLIC TRANSPORTATION

The Metro-North Commuter Railroad and Amtrak both stop in Poughkeepsie, about five miles south of the NPS sites. Taxi service is available from the Poughkeepsie train station. In addition, the NPS offers

seasonal operation of the Roosevelt Ride shuttle bus service from the Poughkeepsie Metro-North Train Station to the Home of FDR NHS. The shuttle service operates seven days a week from May through October, and stops at all of the Roosevelt-Vanderbilt NHS locations. In addition, the Dutchess County Division of Mass Transit offers limited bus service from Monday through Saturday via the Dutchess County LOOP bus system. Route C serves Hyde Park as well as Poughkeepsie, with a stop at the Poughkeepsie train station. The bus stop nearest to the Home of FDR NPS site is the Super Stop and Shop Supermarket stop on Route 9, roughly 1/2 mile to the south. The bus stop nearest to the Val-Kill NPS site is at St. Andrew's Road and Route 9G, about 0.4 miles to the south.

PEDESTRIANS

To access Roosevelt Farm Lane from either the Home of FDR NHS or the Val-Kill location, pedestrians and bicyclists currently use existing crosswalks to traverse Routes 9 and 9G. Based on manual traffic counts taken during the fall of 2008, pedestrian crossings were approximately 9 people during the peak hour. Presently, the existing Route 9 crosswalk is underutilized due to several factors including the small capacity of the existing trailhead parking and the lack of a traffic calming effect at the crosswalk. Vehicles are not instructed to stop for pedestrians at this intersection. This makes a possible crossing seem dangerous and discourages pedestrian movement across Route 9.

CHAPTER 4: ENVIRONMENTAL CONSEQUENCES

This “Environmental Consequences” chapter analyzes both beneficial and adverse impacts that would result from implementing any of the alternatives considered in this EA. This chapter also includes definitions of impact definitions (e.g., negligible, minor, moderate, and major), methods used to analyze impacts, and the analysis methods used for determining cumulative impacts. As required by CEQ regulations implementing the NEPA, a summary of the environmental consequences for each alternative is provided in table 1 which can be found in “Chapter 2: Alternatives.” The resource topics presented in this chapter, and the organization of the topics, correspond to the resource discussions contained in “Chapter 3: Affected Environment.”

GENERAL METHODOLOGY FOR ESTABLISHING IMPACT DEFINITIONS AND MEASURING EFFECTS BY RESOURCE

The following elements were used in the general approach for establishing impact definitions and measuring the effects of the alternatives on each resource category:

- General analysis methods as described in guiding regulations, including the context and duration of environmental effects
- Basic assumptions used to formulate the specific methods used in this analysis
- Definitions used to define the level of impact resulting from each alternative
- Methods used to evaluate the cumulative impacts of each alternative in combination with unrelated factors or actions affecting park resources

These elements are described in the following sections.

GENERAL ANALYSIS METHODS

The analysis of impacts follows CEQ guidelines and Director’s Order 12 procedures (NPS 2001) and is based on the underlying goal of providing for long-term protection, conservation, and restoration of historic resources at the Home of FDR NHS. This analysis incorporates the best available literature applicable to the setting and the actions being considered in the alternatives.

As described in “Chapter 1: Purpose and Need,” the NPS created an interdisciplinary science team to provide important input to the impact analysis. For each resource topic addressed in this chapter, the applicable analysis methods are discussed, including assumptions and impact intensity definitions.

ASSUMPTIONS

Several guiding assumptions were made to provide context for this analysis. These assumptions are described below.

Analysis Period. The analysis period (or duration of impacts) for this assessment is the expected period of construction to implement the visitor access improvement activities at the Home of FDR NHS. Construction is expected to last approximately six months. The analysis period for some resource areas may extend beyond the period of construction. The specific analysis period for each impact topic is defined at the beginning of each topic discussion.

Geographic Area Evaluated for Impacts (Area of Analysis). The geographic study area (or area of analysis) for this assessment is the 30-acre parcel owned by Scenic Hudson Land Trust Inc., located to the north and east of the Home of FDR NHS. The area of analysis may extend beyond the site's boundaries for some cumulative impact assessments. The specific area of analysis for each impact topic is defined at the beginning of each topic discussion.

IMPACT DEFINITIONS

Determining impact definitions is a key component in applying NPS *Management Policies 2006* and Director's Order 12. These definitions provide the reader with an idea of the intensity of a given impact on a specific topic. The impact definition is determined primarily by comparing the effect to a relevant standard based on applicable or relevant/appropriate regulations or guidance, scientific literature and research, or best professional judgment. Because definitions of intensity vary by impact topic, intensity definitions are provided separately for each impact topic analyzed in this document. Intensity definitions are provided throughout the analysis for negligible, minor, moderate, and major impacts. In all cases, the impact definitions are defined for adverse impacts. Beneficial impacts are addressed qualitatively.

Potential impacts of all alternatives are described in terms of type (beneficial or adverse). Adverse impacts are also described in context; duration (short- or long-term); and intensity (negligible, minor, moderate, major). Definitions of these descriptors are included below.

Beneficial. A positive change in the condition or appearance of the resource or a change that moves the resource toward a desired condition.

Adverse. A change that declines, degrades, and/or moves the resource away from a desired condition or detracts from its appearance or condition.

Context. Context is the affected environment within which an impact would occur, such as local, park-wide, regional, global, affected interests, society as whole, or any combination of these. Context is variable and depends on the circumstances involved with each impact topic. As such, the impact analysis determines the context, not vice versa.

Duration. The duration of the impact is described as short-term or long-term. Duration is variable with each impact topic; therefore, definitions related to each impact topic are provided in the specific impact analysis narrative.

Intensity. Because definitions of impact intensity (negligible, minor, moderate, and major) vary by impact topic, intensity definitions are provided separately for each impact topic analyzed.

CUMULATIVE IMPACTS ANALYSIS METHOD

The CEQ regulations to implement NEPA require the assessment of cumulative impacts in the decision making process for federal projects. Cumulative impacts are defined as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions" (40 CFR 1508.7). As stated in the CEQ handbook, "Considering Cumulative Effects" (CEQ 1997), cumulative impacts need to be analyzed in terms of the specific resource, ecosystem, and human community being affected and should focus on effects that are truly meaningful. Cumulative impacts are considered for all alternatives, including the no action alternative.

Cumulative impacts were determined by combining the impacts of the alternative being considered with other past, present, and reasonably foreseeable future actions. Therefore, it was necessary to identify other past, ongoing or reasonably foreseeable future projects and plans at the Home of FDR NHS and, if applicable, the surrounding area. Table 4 summarizes these actions that could affect the various resources at the park, along with the plans and policies of both the park and surrounding jurisdictions, which were discussed in “Chapter 1: Purpose and Need.” Additional explanation for most of these actions is provided in the narrative following the table.

The analysis of cumulative impacts was accomplished using four steps:

Step 1 – Identify Resources Affected: Fully identify resources affected by any of the alternatives. These include the resources addressed as impact topics in chapters 3 and 4 of the document.

Step 2 – Set Boundaries: Identify an appropriate spatial and temporal boundary for each resource. The temporal boundaries are noted at the top of table 4 and the spatial boundary for each resource topic is listed under each topic.

Step 3 – Identify Cumulative Action Scenario: Determine which past, present, and reasonably foreseeable future actions to include with each resource. These are listed in table 4 and described below.

Step 4 – Cumulative Impact Analysis: Summarize impacts of these other actions (x) plus impacts of the proposed action (y), to arrive at the total cumulative impact (z). This analysis is included for each resource in this chapter.

TABLE 4. ACTIONS THAT CONTRIBUTE TO CUMULATIVE IMPACTS

Impact Topic	Study Area	Past Actions	Present Actions	Future Actions
Historic Districts and Structures	Home of FDR NHS	Farm Lane Trail	None	Trail Master Plan
Archeological Resources	Roosevelt-Vanderbilt NHSS	Farm Lane Trail	None	Trail Master Plan
Visitor Use and Experience	Roosevelt-Vanderbilt NHSS	Farm Lane Trail	None	Trail Master Plan
Human Health and Safety	Roosevelt-Vanderbilt NHSS	Farm Lane Trail	None	Trail Master Plan
Vegetation	Home of FDR NHS	Farm Lane Trail	None	Trail Master Plan
Soils	Home of FDR NHS	Farm Lane Trail	None	Trail Master Plan
Wetlands	Home of FDR NHS	Farm Lane Trail	None	Trail Master Plan
Wildlife and Wildlife Habitat, including Threatened and Endangered Species	Home of FDR NHS	Farm Lane Trail	None	Trail Master Plan
Transportation	Roosevelt-Vanderbilt NHSS	Farm Lane Trail	None	Trail Master Plan

The following past, present, and reasonably foreseeable future actions at the Home of FDR NHS or in the surrounding area have been identified as having the potential to impact the resources evaluated in this EA.

- Completion of the Roosevelt Farm Lane Trail – The NPS recently restored the Farm Lane, originally constructed at the direction of FDR, to allow access between Eleanor Roosevelt NHS on Route 9G and Home of FDR NHS on Route 9. The goal of the restoration was to retain the characteristics of the original route to enhance the ability of park visitors to experience how the Roosevelts lived. The project was completed in 2008.
- Proposed Trail Master Plan – The NPS is undertaking a Trail Master Plan, which would potentially increase the number of trails and improve connectivity among the various historic sites. This plan could increase the number of pedestrians within the Home of FDR NHS and the number of bicyclists on neighboring properties.

CULTURAL RESOURCES

GUIDING REGULATIONS AND POLICIES

Federal actions that have the potential to affect cultural resources are subject to a variety of laws and regulations. The NHPA of 1966, as amended, is the principal legislative authority for managing cultural resources associated with NPS projects. Generally, Section 106 of the NHPA requires all federal agencies to consider the effects of their actions on cultural resources listed and/or determined eligible for listing in the NRHP. Such resources are termed “historic properties.” In addition, the NHPA requires that federal agencies take action to minimize harm to historic properties that would be adversely affected by a federal undertaking. Agencies must consult with the SHPO; THPO, if applicable; the ACHP, as required; and other interested parties in an effort to avoid, minimize, or mitigate adverse impacts.

In addition, the NPS is charged with the protection and management of cultural resources in its custody. This is furthered through the implementation of Director’s Order 28: Cultural Resources Management Guidelines (NPS 1998b), *NPS Management Policies 2006* (NPS 2006), and the 2008 NPS Programmatic Agreement with the ACHP and the National Conference of State Historic Preservation Officers (NPS 2008a). These documents charge NPS managers with avoiding, or minimizing to the greatest degree practicable, adverse impacts on park resources and values. Although the NPS has the discretion to allow certain impacts in parks, that discretion is limited by the statutory requirement that park resources and values remain unimpaired, unless a specific law directly provides otherwise.

GENERAL METHODOLOGY AND ASSUMPTIONS

The NPS categorizes cultural resources by the following categories: archeological resources, cultural landscapes, prehistoric and historic structures (including historic districts), museum objects, and ethnographic resources. Only impacts to historic districts and structures and archeological resources are of potential concern for this project. As noted in chapter 1, cultural landscapes, museum objects, and ethnographic resources have been dismissed.

The analyses of impacts on cultural resources that are presented in this section respond to the requirements of NEPA. Section 106 consultation is being conducted in conjunction with the NEPA process. Section 106 consultation letters were sent to the New York SHPO on January 25, 2011. The New York SHPO replied on March 22, 2011 and confirmed the proposed project would have no adverse effect on cultural resources. All consultation letters are available in appendix C.

CEQ regulations and the NPS Director's Order 12 also call for a discussion of the appropriateness of mitigation, as well as an analysis of how effective the mitigation would be in reducing the intensity of a potential impact: for example, reducing the intensity of an impact from major to moderate or minor. Any resultant reduction in intensity of impact due to mitigation, however, is an estimate of the effectiveness of mitigation under NEPA only. Cultural resources are nonrenewable resources and adverse impacts generally consume, diminish, or destroy the original historic materials or form, resulting in a loss in the integrity of the resource that can never be recovered.

The NPS guidance for evaluating impacts, Director's Order 12 (NPS 2001) requires that impact assessment be scientific, accurate, and quantified to the extent possible. For cultural resources, it is rarely possible to measure impacts in quantifiable terms; therefore, impact definitions must rely heavily on the professional judgment of resource experts.

STUDY AREA

The study area for cultural resources is the area of potential effects. The area of potential effects for archeological resources specifically consists of the approximate 30-acre parcel across from the Home of FDR NHS on Albany Post Road (Route 9), historically part of the Home Farm portion of President Roosevelt's estate, slated for proposed improvements. The project has the potential to directly impact the Home of FDR NHS historic district and indirectly impact the Eleanor Roosevelt NHS historic district. However, the analysis is confined to the Home of FDR NHS because the proposed construction activities would be localized and geographically distant from the Eleanor Roosevelt NHS structures (primarily the Val-Kill house) to have no impact. The study area for cumulative impacts analysis encompasses the entire Roosevelt-Vanderbilt NHS.

HISTORIC DISTRICTS AND STRUCTURES

Impact Definitions

For a historic district or structure to be listed on the NRHP, it must possess significance (the meaning or value ascribed to the historic district or structure), and the features necessary to convey its significance must have integrity. For purposes of analyzing potential impacts on historic districts and structures, the definitions of change for the intensity of an impact are defined as follows:

- Negligible:* The impact is at the lowest level of detection with neither adverse nor beneficial consequences.
- Minor:* Alteration of a pattern(s) or feature(s) of a historic district or structure listed on or eligible for the NRHP would not diminish the integrity of a character-defining feature(s) or the overall integrity of the historic property.
- Moderate:* The impact would alter a character-defining feature(s) of a historic district or structure and diminish the integrity of that feature(s) of the historic property.
- Major:* The impact would alter a character-defining feature(s) of the historic district or structure and severely diminish the integrity of that feature(s) and the overall integrity of the historic property.
- Beneficial:* No levels of intensity for beneficial impacts are defined. The historic district or structure would be restored in accordance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties* to accurately depict its form,

features, and character as it appeared during its period of significance.

Duration: Short-term impacts are equivalent to the period of construction. The long-term impacts would be related to impacts to the historic district or structure following construction.

Impacts of Alternative A: No Action

Analysis

Under alternative A, visitors would continue to use the existing parking and crosswalk facilities; no new facilities would be constructed.

There would be no alterations to the structures of the NHS as a result of alternative A, and visitors would continue to use existing trails and parking areas. Implementation of the no action alternative would result in no impact to historic districts and structures.

Cumulative Impacts

Since no impacts are projected under the no action alternative, no cumulative impacts would occur.

Conclusion

Under the no action alternative, there would be no impacts resulting from continued operations. There would be no cumulative impacts to historic districts and structures under the no action alternative.

Impacts of Alternative B: Access and Trailhead Improvements

Analysis

Visitor access improvements under alternative B would include construction of a new 40-space parking lot along Route 9, south of the existing drive-in theater, in order to provide additional trailhead parking to the popular Roosevelt Farm Lane. Additionally, alternative B proposes to improve a pedestrian crossing where Roosevelt Farm Lane ends at Route 9G, allowing visitors to safely cross Route 9G en route to and from the Eleanor Roosevelt Val-Kill property. The pedestrian crossing would include traffic calming measures. Alternative B also would include the removal of the existing Hyde Park drive-in theater entrance currently situated just north of the Wallace Center on the east side of Route 9; removal of the existing flashing traffic signal; and closure of the existing Roosevelt Farm Lane parking lot and entrance. Finally, alternative B would remove the existing crosswalk south of the Wallace Center entrance and relocate it to the new four-way intersection. In addition, the stone walls situated along Route 9 would be preserved and restored since they appear to be important remnants of the Roosevelt Home Farm.

The construction of the new parking lot along Route 9 would have no direct impacts to historic structures, as they would be avoided during construction. However, the construction of the new parking lot could have long-term, moderate adverse impacts on the pastoral landscape of the Home of FDR NHS due to the increased development in an undeveloped location, the restoration of which is one of the purposes of the proposed improvements. However, mitigation measures, such as leaving existing evergreen and deciduous trees and planting deciduous trees along the edges of the new parking lot, would be incorporated into the design to lessen the incongruent elements and help the parking lot blend better into the landscape. These mitigation measures would reduce the impacts of the new parking lot to long-term,

minor adverse. Conversely, the closure of the existing Roosevelt Farm Lane parking area would have long-term beneficial impacts on the pastoral setting of the NHS by reducing development in that location.

Although it appears that the alignment of the proposed connector path goes through an existing gap in the stone wall in that part of the area of potential effects, the stone walls situated along Route 9 should be documented and preserved since they appear to be important remnants of the Roosevelt Home Farm, a historical and cultural landscape (LBG 2011). The restoration of the stone wall situated along Route 9 would contribute to the historical and built cultural landscape and be a long-term beneficial impact to the NHS and historic district. Along with that beneficial action, the meadow between the Hyde Park drive-in theater and Route 9 would be restored and an earthen berm added to shield the view of the theater and parking areas and improve the pastoral setting within the NHS, an additional long-term beneficial impact. The proposed traffic calming measures and crosswalk improvements would have long-term, negligible adverse impacts on the historic district and structures, as they would be located primarily in areas already developed or subject to traffic. In addition, the pastoral setting would be relatively unaffected in these areas.

Overall, impacts to historic districts and structures would be both long-term, negligible to minor adverse and long-term beneficial.

Cumulative Impacts

NPS projects within the vicinity of the Home of FDR NHS, such as the restoration of Roosevelt Farm Lane are complete and have had long-term beneficial impacts to historic structures and districts by restoring a portion of the property to the landscape during the period of significance. Future planning actions include the proposed Trail Master Plan which would examine potential locations for bicycle and pedestrian trails within the Roosevelt-Vanderbilt NHS, which would result in long-term, minor adverse impacts to historic districts and structures associated with the improvements to existing trails or placement of new trails, depending on their location.

Alternative B would have long-term, negligible to minor adverse and long-term beneficial impacts to historic districts and structures. When combined with the long-term minor adverse and long-term beneficial impacts from the cumulative actions, alternative B would have a noticeable beneficial contribution resulting in an overall long-term beneficial cumulative impact to historic districts and structures.

Conclusion

Under alternative B, there would be both long-term, negligible to minor adverse and long-term beneficial impacts resulting from proposed improvements for visitor access. The cumulative impacts to historic districts and structures from alternative B combined with other projects would be long-term beneficial.

ARCHEOLOGICAL RESOURCES

Methodology and Assumptions

Potential impacts to archeological resources are limited to those areas where there would be ground-disturbing activities such as excavation or grading. Analysis of possible impacts to archeological resources was based on a review of previous archeological studies and a Phase I archeological study (LBG 2011) conducted for this EA, plus consideration of the proposed design.

Impact Definitions

Impacts to archeological resources occur when the proposed alternative results in whole or partial destruction of the resource, which is termed a loss of integrity in the context of Section 106. Impact definitions for archeological resources consider both the extent to which the proposed alternative results in a loss of integrity and the degree to which these losses can be compensated by mitigating activities, such as preservation or archeological data recovery. The process begins with assessment of a resource according to its eligibility for the NRHP, as only sites considered significant enough for listing in the NRHP are protected by federal regulations.

Under federal guidelines, resources are eligible for the NRHP if they possess integrity and they meet one or more of the criteria of eligibility for inclusion in the NRHP. Most archeological resources are found eligible for the NRHP significant under criterion D because they have the potential to provide important information about the history or prehistory. However, in some circumstances, archeological resources might be found significant because (1) they are associated with events that have made a significant contribution to the broad patterns of our history (NRHP Criterion A), or (2) because they are associated with the lives of persons significant in our past (NRHP Criterion B), or (3) because they embody distinctive characteristics of a type, period, or method of construction (NRHP Criterion C).

For purposes of analyzing impacts to archeological resources, definitions of change for the intensity of an adverse impact are based on the foreseeable loss of integrity. All of these discussions consider only the direct impacts of construction, because operation of the facilities should have no ground disturbance activities and no additional impact on archeological resources under any of the alternatives under consideration. All impacts are considered long term (e.g., lasting longer than the period of construction).

- Negligible:* Impact is at the lowest levels of detection with neither adverse nor beneficial consequences.
- Minor:* Disturbance of a site(s) results in little, if any, loss of integrity.
- Moderate:* Disturbance of a site(s) results in loss of integrity to the extent that there is a partial loss of the character-defining features and information potential that form the basis of the site's NRHP eligibility. Mitigation is accomplished by a combination of archeological data recovery and in place preservation.
- Major:* Disturbance of a site(s) results in loss of integrity to the extent that it is no longer eligible for the NRHP. Its character-defining features and information potential are lost to the extent that archeological data recovery is the primary form of mitigation.
- Beneficial:* A beneficial impact would occur when actions were taken to actively preserve or stabilize a site in its pre-existing condition, or when it would be preserved in accordance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties* to accurately depict its form, features, and character as it appeared during its period of significance.
- Duration:* Short-term impacts would last for the duration of construction activities associated with the proposed alternative; long-term impacts would last beyond the construction activities. All impacts to archeological resources are considered long term.

Impacts of Alternative A: No Action

Analysis

Under the no action alternative, there would be no grading or excavation of soils or removal of vegetation as a result of this alternative and, consequently, no disturbance to known archeological sites. Visitors would continue to use existing trails and parking areas, thus avoiding culturally sensitive areas. Implementation of the no action alternative would result in no impact to archeological resources.

Cumulative Impacts

Since no impacts are projected under the no action alternative, no cumulative impacts would occur.

Conclusion

Implementation of the no action alternative would result in no adverse impacts to archeological resources in the study area. There would be no cumulative impacts on archeological resources under the no action alternative.

Impacts of Alternative B: Access and Trailhead Improvements

Analysis

Under alternative B, the park would construct a new 40-space parking lot and multi-use trail extending from the parking lot to meet the existing Roosevelt Farm Lane. Enhancements would be made to the pedestrian crossing where Roosevelt Farm Lane ends at Route 9G and the construction of a four-way intersection located at the existing entrance to the Home of FDR NHS. Improvements also call for the removal of the existing Hyde Park drive-in theater entrance and of the existing crosswalk south of the Wallace Center.

In preparation for construction activities associated with the proposed parking lot and trail extension, grading and leveling would occur in areas currently maintained as turf or natural vegetation. As a result of construction activities, soils in the area of the parking lot and trail would be compacted, the soil layer structure would be disturbed and modified, and soils would be exposed, increasing the overall potential for cultural materials to be uncovered. In areas along Route 9 and 9G where improvements are being made to existing roadways or sidewalks, no impacts to the soils would be expected. Soils that might have contained cultural material in these areas have previously been disturbed and are currently covered with concrete, asphalt, or other manmade surfaces. In areas where crosswalk enhancements and the construction of a new four-way intersection, removal of any existing roadway and pavement would expose underlying soils. However, exposure would be temporary, as the areas would be once again covered with asphalt from the construction of the enhancements.

Although no known archeological resources exist in the construction areas, there is the potential for undetected subsurface cultural material to exist. If subsurface artifacts are identified during construction activities, work would stop until NPS archeologists have evaluated the resources. Overall, impacts from construction activities on archeological resources in the parking lot, trail, and Route 9 and 9G areas would be localized, long term, negligible adverse.

Cumulative Impacts

NPS projects within the vicinity of the Home of FDR NHS, such as the restoration of Roosevelt Farm Lane are complete and resulted in no impact to archeological resources. Future planning actions include the Trail Master Plan which would result in long-term, negligible adverse impacts to archeological resources, depending on the location of proposed trails.

Alternative B would have long-term, negligible adverse impacts to archeological resources. When combined with the long-term negligible adverse impacts from the cumulative actions, alternative B would result in an overall long-term, negligible adverse cumulative impact to archeological resources.

Conclusion

Ground-disturbing activities associated with alternative B have the potential to result in long-term, negligible adverse impacts to archeological resources. Although no known archeological features and deposits exist within the project area, there is the possibility that undiscovered subsurface cultural materials could be encountered. Cumulative impacts would be long-term, negligible and adverse.

VISITOR USE AND EXPERIENCE

METHODOLOGY AND ASSUMPTIONS

The purpose of this impact analysis is to assess the impacts of the alternatives on the visitor experience at the Home of FDR NHS and visitor experience in the areas that would be affected by the visitor access improvements. To determine impacts, the current uses of the site were considered and the potential impacts of the construction of the proposed actions on visitor experience and use were analyzed. Activities and the type of visitor experience and use/visitation that occur in the Home of FDR and which might be affected by the proposed actions, as well as the noises experienced by the visitors, were considered.

STUDY AREA

The study area for visitor use and experience is the Home of FDR NHS and the connection to the Val-Kill property. The study area for cumulative impacts analysis encompasses the entire Roosevelt-Vanderbilt NHSs.

IMPACT DEFINITIONS

The following definitions were defined for visitor use and experience:

Negligible: Visitors would likely be unaware of impacts associated with implementation of the alternative. There would be no noticeable change in visitor use and/or experience or in any defined indicators of visitor satisfaction or behavior.

Minor: Changes in visitor use and/or experience would be slight and detectable, but would not appreciably limit or enhance critical characteristics of the visitor experience. Visitor satisfaction would remain stable. If mitigation were needed, it would be relatively simple and would likely be successful.

- Moderate:* A few critical characteristics of the desired visitor experience would change and/or the number of participants engaging in a specified activity would be altered. Some visitors who desire their continued use and enjoyment of the activity/visitor experience might pursue their choices in other available local or regional areas. Visitor satisfaction would begin to decline. Mitigation measures would probably be necessary and would likely be successful.
- Major:* Multiple critical characteristics of the desired visitor experience would change and/or the number of participants engaging in an activity would be greatly reduced or increased. Visitors who desire their continued use and enjoyment of the activity/visitor experience would be required to pursue their choices in other available local or regional areas. Visitor satisfaction would markedly decline. Extensive mitigation measures would be needed, and success would not be guaranteed.
- Beneficial:* Visitors would notice a positive change in visitor use and/or experience, resulting in an increase in visitor satisfaction.
- Duration:* Short-term impacts would be immediate, occurring during construction of the proposed action. Long-term impacts would persist after implementation of the alternative.

Impacts of Alternative A: No Action

Analysis

Under the no action alternative, visitor access improvements at the Home of FDR NHS would not occur. Visitors wishing to experience Roosevelt Farm Lane would continue to park at the existing trailhead parking lots on Route 9 and Route 9G, which are often filled to capacity during peak visitation hours.

Under this alternative, bicyclists and pedestrians wishing to travel between the Val-Kill and Springwood Estates using Roosevelt Farm Lane would use the existing crosswalks and may experience high traffic volumes during rush hour.

Access to and from the Hyde Park drive-in theater would not change. Overall, alternative A would result in long-term, minor adverse impacts to visitor use and experience due to limited parking availability and the potential for a lengthy pedestrian queue when crossing Route 9 during peak traffic hours.

Cumulative Impacts

NPS projects within the vicinity of the Home of FDR NHS, such as the restoration of Roosevelt Farm Lane are complete and have had beneficial impacts to visitor use and experience by improving park facilities and the pedestrian accessibility between the Val-Kill and Home of FDR properties. Future planning actions include the Trail Master Plan which would examine potential locations for bicycle and pedestrian trails within the Roosevelt-Vanderbilt NHS, which would result in long-term beneficial impacts to visitor use and experience by increasing connectivity throughout the management unit.

The no action alternative would have long-term, minor adverse impacts to visitor use and experience. When combined with the beneficial impacts from the cumulative actions, the no action alternative would

have a noticeable adverse contribution resulting in an overall long-term, negligible adverse cumulative impact to visitor use and experience.

Conclusion

Implementation of the no action alternative would result in long-term, minor adverse impacts to visitor use and experience from limited parking availability and time required to cross Route 9 during periods of peak traffic volume. Combined with other projects in the study area, there would be long-term, minor adverse cumulative impacts.

Impacts of Alternative B: Access and Trailhead Improvements

Analysis

Under alternative B, the proposed parking lot would be constructed on Scenic Hudson property just south of the existing Hyde Park drive-in theater. The parking lot would accommodate approximately 40 cars and would be able to handle the volume of vehicles anticipated during peak visitor use of Roosevelt Farm Lane, resulting in a long-term beneficial impact to visitor use and experience. Additional visitor improvements would include a pedestrian shelter and a bike rack facility, which would contribute additional beneficial impacts.

Pedestrian crossing improvements along Route 9G and Route 9 would allow visitors to traverse Route 9 in a timely manner and be more visible as they crossed Route 9G. The actuated signal at the Route 9 intersection would allow pedestrians the right of way when crossing to and from the Home of FDR property, eliminating a long wait during peak traffic periods, resulting in long-term beneficial impacts.

During the six-month construction period, visitors may experience short-term adverse impacts as the pedestrian crossings are upgraded and the spur trail is connected with the existing Roosevelt Farm Lane. While Roosevelt Farm Lane would not be closed during construction, temporary closures may be required as the spur trail construction nears the existing trail to ensure visitor safety. These short-term, minor adverse impacts would only last during the construction period.

Overall, the visitor access improvements would result in short-term, minor adverse impacts during construction and long-term, beneficial impacts to visitor use and experience from improved connectivity.

Cumulative Impacts

Impacts to visitor use and experience from completed cumulative actions would be the similar to those under the no action alternative resulting in long-term, beneficial impacts to visitor use and experience. Alternative B would have short-term, minor adverse but long-term, beneficial impacts to visitor use and experience. When combined with the impacts from the cumulative actions, alternative B would have a noticeable beneficial contribution and slight adverse contribution resulting in an overall long-term, beneficial impact to visitor use and experience.

Conclusion

Implementation of alternative B would result in short-term, minor adverse impacts to visitor use and experience as a result of construction activities. In addition, alternative B would have long-term, beneficial impacts to visitor use and experience from the improve visitor facilities and connectivity to and from Val-Kill and the Home of FDR NHS. Cumulative impacts to visitor use and experience would be long-term and beneficial with alternative B having a noticeable beneficial contribution.

HUMAN HEALTH AND SAFETY

METHODOLOGY AND ASSUMPTIONS

The analysis of public safety considers risks to NPS staff and the general public that are associated with hazards in the project area as well as the proposed visitor access improvements. Impacts for this resource area were analyzed qualitatively, using information provided by the project engineers and NPS staff familiar with the current operation and maintenance within the project area.

STUDY AREA

The study area for human health and safety is the Home of FDR NHS and connection to and from the Val-Kill property. The study area for cumulative impacts analysis encompasses the entire Roosevelt-Vanderbilt NHS.

IMPACT DEFINITIONS

The impact intensities for the assessment of impacts on health and safety follow. Where impacts on health and safety become moderate, it is assumed that current visitor satisfaction and safety levels would begin to decline, and some of the site's long-term visitor goals would not be achieved.

Negligible: Impacts on health and safety would not be measurable or perceptible.

Minor: Impacts on health and safety would be measurable or perceptible, but it would be limited to a relatively small number of visitors or employees at localized areas. Mitigation could be needed, but would be relatively simple and likely to be successful.

Moderate: Impacts on health and safety would be sufficient to cause a change in accident rates at existing low-accident locations or in areas that currently do not exhibit noticeable accident trends. Mitigation measures would probably be necessary and would likely be successful.

Major: Impacts on health and safety would be substantial. Accident rates in areas usually limited to low accident potential are expected to substantially increase in the short- and long-term. Extensive mitigation measures would be needed, and success would not be guaranteed.

Beneficial: Impacts on health and safety would improve the health and safety of both visitors and employees.

Duration: Short-term impacts would be immediate, occurring during construction of the alternative. Long-term impacts would persist after implementation of the alternative.

Impacts of Alternative A: No Action

Analysis

Under alternative A, visitors would continue to use the existing trailhead parking for Roosevelt Farm Lane located near Golden Manor on Route 9, with additional parking available on Route 9G. The connection between the Eleanor Roosevelt Val-Kill Estate and the Home of FDR Springwood Estate, visitor center, and library would continue to be Roosevelt Farm Lane, but with limited parking and the existing pedestrian crossings locations for both Route 9 and 9G. No construction activities to improve visitor access would occur.

Visitors would continue to utilize the existing pedestrian crosswalks at Route 9 and 9G, which would continue to pose a potential hazard to health and safety, especially across Route 9 during peak traffic periods. Overall, implementation of the no action alternative would result in long-term, moderate adverse impacts to human health and safety due to safety issues associated with inadequate pedestrian crossings at Route 9 and 9G.

Cumulative Impacts

NPS projects within the vicinity of the Home of FDR NHS, such as the restoration of Roosevelt Farm Lane are complete and have had beneficial impacts to human health and safety by improving park facilities and providing a safe pedestrian and bicycle accessible route between the Val-Kill and Home of FDR properties. Future planning actions include the Trail Master Plan which would examine potential locations for bicycle and pedestrian trails within the Roosevelt-Vanderbilt NHS, which would result in long-term beneficial impacts to human health and safety by increasing vehicle-free, pedestrian and bicycle connectivity throughout the management unit.

The no action alternative would have long-term, moderate adverse impacts to human health and safety. When combined with the beneficial impacts from the cumulative actions, the no action alternative would have a noticeable adverse contribution resulting in an overall long-term, moderate adverse cumulative impact to human health and safety.

Conclusion

Under the no action alternative, the visitor access improvements would not be made and pedestrians and bicyclists would continue to use the existing crosswalks across Route 9 and Route 9G, resulting in long-term, moderate adverse impacts to human health and safety, especially during peak traffic periods. When combined with the beneficial impacts from the cumulative actions, alternative A would have a noticeable adverse contribution resulting in an overall long-term, moderate adverse cumulative impact to human health and safety.

Impacts of Alternative B: Access and Trailhead Improvements

Analysis

Under alternative B, the NPS would address improvements to visitor access from the Home of FDR NHS to Val-Kill by constructing a new 40 space parking along Route 9, a trail spur from the parking lot to the existing Roosevelt Farm Lane, improve a pedestrian crossing where Roosevelt Farm Lane ends at Route 9G, and install a signalized intersection on Route 9 at the entrance to the proposed parking lot and the existing entrance to the welcome center.

The improved pedestrian crossings would include traffic calming measures such as a pedestrian cross sign with a base in the middle of the roadway, advanced crosswalk sign, detectable warning tile, yellow pavement markings, and raised bulb-outs on both sides of the crossing. Bulb-outs, or curb extensions, extend the sidewalk, reducing the crossing distance for pedestrians and forcing motorists to slow down in order to pass through the narrower roadway section. These measures would also make the crosswalk more visible to passing motorists, increasing visitor safety and resulting in a long-term beneficial impact.

At the Route 9 crosswalk, a full actuated signalized intersection would be installed, allowing visitors the right-of-way to cross the street. This signalized intersection would result in a long-term beneficial impact to human health and safety, especially noticeable during peak traffic periods.

Overall, visitor access improvements under alternative B would result in long-term beneficial impacts to human health and safety by allowing visitors safer pedestrian crossings along Roosevelt Farm Lane and to and from the Val-Kill and Home of FDR NHS.

Cumulative Impacts

Cumulative actions for human health and safety at the Roosevelt-Vanderbilt NHS are the same as described in the no action alternative, resulting in long-term beneficial impacts. When combined with the beneficial impacts from the cumulative actions, alternative B would have a noticeable beneficial contribution resulting in an overall long-term, beneficial impact to human health and safety.

Conclusion

Under alternative B, visitor access improvements, including improved pedestrian crosswalks and a fully actuated signalized intersection would result in long-term beneficial impacts to human health and safety. When combined with the beneficial impacts from the cumulative actions, alternative B would have a noticeable beneficial contribution resulting in an overall long-term, beneficial cumulative impact to human health and safety.

VEGETATION

METHODOLOGY AND ASSUMPTIONS

Available information on vegetation and vegetative communities occurring at the Home of FDR NHS was compiled and reviewed. Predictions about short- and long-term project impacts on vegetation were based on general characteristics and proposed actions affecting vegetated areas associated with the alternatives.

STUDY AREA

The geographic study area for impacts on vegetation includes the project area for the proposed actions at the Home of FDR NHS as well as associated areas that would be used for construction staging for equipment and supplies. It is expected that construction activities would not occur outside these areas. The study area for cumulative analysis includes the project area in the Home of FDR NHS and in the immediate vicinity of the project area.

IMPACT DEFINITIONS

The following definitions were used to determine the magnitude of impacts on vegetation:

- Negligible:* Some individual native plants could be affected as a result of the alternative, but measurable or perceptible changes in plant community size, integrity, or continuity would not occur. The impacts would be on a small scale.
- Minor:* The alternative would affect some individual native plants and would also affect a relatively minor portion of that species' population. The viability of the plant community would not be affected and the community, if left alone, would recover. Mitigation could be needed to offset adverse impacts, would be relatively simple to implement, and would likely be successful.
- Moderate:* The alternative would affect some individual native plants and a relatively large area in the native plant community that would be readily measurable in terms of abundance, distribution, quantity, or quality. Mitigation to offset adverse impacts could be extensive and would likely be successful.
- Major:* The alternative would have a considerable impact on native plant communities that would be readily apparent, and would substantially change vegetation community types over a large area in and out of the park. Mitigation measures to offset the adverse impacts would be required would be extensive, and success of the mitigation measures would not be guaranteed.
- Beneficial:* A beneficial impact would occur when actions were taken to actively preserve, stabilize or return vegetative communities to its pre-existing condition.
- Duration:* Short-term impacts occur during the implementation of the alternative; long-term impacts extend beyond implementation of the alternative.

Impacts of Alternative A: No Action

Analysis

Under alternative A there would be no grading or removal of vegetation as a result of this alternative, and visitors would continue to use existing trails and parking areas. Natural vegetation in the project area remains mostly undisturbed by human activities. While there may be the occasional incident of inadvertent damage (i.e., trampling, walking on exposed roots) or intentional vandalism to individual plants and trees, it is unlikely there would be future damage to vegetation. Impacts on vegetation from the occasional incidence of damage would not likely be noticeable. Implementation of the no action alternative would result in no new impacts with impacts resulting from existing visitor use of the project area being considered long-term, negligible adverse.

Cumulative Impacts

Projects that could affect vegetation include past, ongoing, and future projects at the Home of FDR as well as development that involve construction in or around the project area. Past projects include the completion of Roosevelt Farm Lane. This project required some vegetation disturbance, including clearing and tree removal to construct the trail sections. With regard to the special vegetative communities

on the project property, plan designs have been incorporated vegetative concerns into the overall trail design, with the entire project resulting in long-term negligible adverse impacts. Future projects include the Trail Master Plan, which would be expected to disturb or remove vegetation, resulting in long-term negligible to minor adverse impacts, depending on the amount of vegetation disturbed. Impacts on vegetation from these cumulative actions would result in long-term negligible to minor adverse impacts. When combined with the localized long-term negligible adverse impacts of the no action alternative, cumulative impacts on vegetation would be long term, negligible to minor adverse.

Conclusion

Under the no action alternative, existing use would continue in the project area, resulting in long-term negligible adverse impacts on vegetation. Cumulative impacts on vegetation would be long-term negligible adverse.

Impacts of Alternative B: Access and Trailhead Improvements

Analysis

Under alternative B, the park would construct a new 40 space parking lot and multi-use trail extending from the parking lot to meet the existing Farm Lane trail covering approximately 1,000 feet, with the proposed layout would remove approximately 1.5 acres of successional forest. The existing gravel parking lot would be removed and reseeded and deciduous trees would be planted to mask the visual impacts of the proposed parking lot. Enhancements would be made to the pedestrian crossing where Roosevelt Farm Lane ends at Route 9G and the construction of a four-way intersection located at the existing entrance to the Home of FDR NHS. Improvements also call for the removal of the existing Hyde Park drive-in theater entrance and of the existing crosswalk south of the Wallace Center and the restoration of pastoral landscapes of the property as well as the construction of a ticket booth, bike rack, and pedestrian shelter.

Prior to construction of the proposed visitor access improvement, it is expected that a construction staging area would be established in the project area. Staging areas would be established in areas currently maintained as turf or natural vegetation in the vicinity of the existing drive-in theater entrance, which is previously disturbed turf. These impacts would be temporary and localized and, as a result, vegetation in the area would be damaged and removed. Overall, construction activities would have a localized short-term negligible adverse impact on vegetation in the project area.

Vegetation in the existing Hyde Park drive-in theater has been previously affected by foot and automobile traffic, however vegetative communities still exist. The continued use of the drive-in theater would continue disruption to these vegetative communities, however there is no evidence that further damage would occur, resulting in continued long-term, negligible adverse impacts.

The construction of the new parking lot and trail would remove approximately 1.5 acres out of the total 9 acres of existing vegetation within the footprint of both the parking lot and trail. Construction of a new parking lot and trail as well as a ticket booth, bike racks and pedestrian shelter would remove existing vegetation, including grasses, shrubs, and trees, would be removed and replaced with a pervious asphalt base, resulting in long-term, minor adverse impacts.

In areas along Route 9 and 9G where improvements are being made to existing roadways or sidewalks, no new impacts to vegetation would be expected. Vegetation in these areas has previously been removed and is currently covered with concrete, asphalt, or other manmade surfaces. In areas where crosswalk enhancements and the construction of a new four-way intersection, vegetation has already been disturbed

and removed and the enhancements of any existing roadway and pavement would not cause any further damage to vegetation. There may be occasional or inadvertent damage to vegetation as a result of these construction activities but there is no evidence that any future damage would occur. Impacts on vegetation in these areas would be short term, negligible adverse.

The removal and reseeded of the existing gravel parking lot as well as the planting of deciduous trees along the entrance road, works to bring vegetative communities back to their natural states, resulting in long-term beneficial impacts.

Cumulative Impacts

Impacts on vegetation from cumulative actions would be similar to those under the no action alternative, resulting in long-term negligible to minor adverse impacts. When combined with the localized short-term negligible and long-term, negligible to minor adverse impacts of alternative B, cumulative impacts on vegetation would be long term, negligible to moderate adverse.

Conclusion

Construction of the proposed parking lot and trail under alternative B would result in long-term minor adverse impacts on vegetation as a result of the natural vegetation that would be removed in currently undisturbed areas. Adverse impacts on vegetation that would occur as a result of the continued use of the drive-in theater would result in long-term, negligible adverse impacts. Impacts from improvements being made to existing roadways or sidewalks as well as impacts associated with construction staging would be short term, negligible adverse. Beneficial impacts stemming from the removal and reseeded of the gravel parking lot and the planting of deciduous trees along the entrance road results in long-term beneficial impacts. Overall, cumulative impacts on vegetation would be would be long term, negligible to moderate adverse.

SOILS

METHODOLOGY AND ASSUMPTIONS

Potential impacts were assessed based on the extent of disturbance to soils, including natural undisturbed soils, the potential for soil erosion resulting from disturbance, and limitations associated with soils. Analysis of possible impacts to soils were based on the review of existing literature and maps, information provided by the NPS and other agencies, and professional judgment. This section assesses the potential impacts of the proposed access improvements in the project area.

STUDY AREA

The geographic study area for impacts on soils includes the project area for the proposed actions at the Home of FDR as well as associated areas that would be used for construction staging for equipment and supplies. It is expected that construction activities would not occur outside these areas. The study area for cumulative analysis includes the project area in the Home of FDR NHS and immediately adjacent areas around the project area.

IMPACT DEFINITIONS

The impact intensities for soils were defined as follows:

- Negligible:* The action would result in a change to soils, but the change would be so small that it would not be of any measurable or perceptible consequence.
- Minor:* The action would result in impacts on soils, but the change would be small and localized and of little consequence. Mitigation would be needed to offset adverse impacts, would be relatively simple to implement, and would likely be successful.
- Moderate:* The action could result in a change to soils; the change would be measurable and of consequence. Mitigation measures would be necessary to offset adverse impacts and would likely be successful.
- Major:* The action would result in a noticeable change to soils; the change would be measurable and would result in a severely adverse impact. Mitigation measures necessary to offset adverse impacts would be needed and would be extensive, and their success would not be guaranteed.
- Beneficial:* A beneficial impact would occur when actions were taken to actively preserve, stabilize or return soils to its pre-existing condition.
- Duration:* Short-term impacts occur during the implementation of the alternative; long-term impacts extend beyond implementation of the alternative.

Impacts of Alternative A: No Action

Analysis

The no action alternative represents the current conditions in the project area. There would be no grading or excavation of soils or removal of vegetation as a result of this alternative, and visitors would continue to use existing trails and parking areas. Implementation of the no action alternative would result in no impact to soils.

Cumulative Impacts

Since no impacts are projected under the no action alternative, no cumulative impacts would occur.

Conclusion

Implementation of the no action alternative would not result in impacts on soils in the project area, as there would be no modifications to these resources. There would be no cumulative impacts.

Impacts of Alternative B: Access and Trailhead Improvements

Analysis

Under alternative B, the park would construct a new 40-space parking lot and multi-use trail extending from the parking lot to meet the existing Roosevelt Farm Lane covering approximately 1,000 feet. The proposed layout would remove approximately 1.5 acres of successional forest. The existing gravel parking lot would be removed and reseeded and deciduous trees would be planted to mask the visual impacts of the proposed parking lot. Enhancements would be made to the pedestrian crossing where Roosevelt Farm Lane ends at Route 9G and the construction of a four-way intersection located at the existing entrance to the Home of FDR NHS. Improvements also call for the removal of the existing Hyde Park drive-in theater entrance and of the existing crosswalk south of the Wallace Center and the restoration of pastoral landscapes of the property as well as the construction of a ticket booth, bike rack and pedestrian shelter.

In preparation for construction activities grading and leveling on construction areas would occur temporarily in areas currently maintained as turf or natural vegetation. As a result of construction activities, soils in the area of construction would be compacted, the soil layer structure would be disturbed and modified, and soils would be exposed, increasing the overall potential for erosion. Mitigation would include the employment of best management practices, which would include the use of silt fencing to prevent and control soil erosion and sedimentation during construction of the parking lot and trail. Construction activities, including equipment staging, would have a localized short-term negligible to minor adverse impact on soils in the project area. Soil productivity would decline in disturbed areas and would be completely eliminated for those areas within the footprint of the new parking lot and trail. The removal of the existing gravel parking lot and areas disturbed outside of the footprint of the new parking lot and trail would be aerated and reseeded or replanted with native vegetation after construction activities, which would decrease the overall erosion potential of the site and improve soil productivity, leading to localized long-term beneficial impacts. Also, soils disturbance during grading and construction activities of the proposed parking lot and trail would be mitigated by use of best management practices and adherence to an approved erosion and sediment control plan. The proposed parking lot layout increases the footprint of the parking area, and incorporates the use of pervious asphalt pavement, therefore not increasing the total amount of impervious surface and as a result would not increase storm water runoff and erosion in the long-term. The construction of the new trail would utilize pavement and stone on asphalt increasing the amount of impervious surface and potentially contributing to storm water runoff and erosion in the long-term. Construction of the parking lot and trail would have localized long-term, minor adverse impacts on soils in the project area.

In areas along Route 9 and 9G where improvements are being made to existing roadways or sidewalks, no impacts to the soils would be expected. Soils in these areas have previously been disturbed and are currently covered with concrete, asphalt, or other manmade surfaces. In areas where crosswalk enhancements and the construction of a new four-way intersection removal of any existing roadway and pavement would expose underlying soils. However, soil exposure would be temporary, as the areas would be once again covered with asphalt from the construction of the enhancements. Impacts on soils in these areas would be short term, minor adverse.

Cumulative Impacts

Impacts to soils from cumulative actions would be long-term negligible to minor adverse impacts during construction activities from the completed construction activities associated with Roosevelt Farm Lane and the Trail Master Plan dependent on the amount of soil disturbed. These projects have required or will require some soil disturbance, including localized erosion and compaction, but would include mitigation

to reduce soil loss and erosion. When combined with the localized long-term, negligible to minor adverse impacts from construction activities and increased impervious surface in alternative B, cumulative impacts on soils would be long term, negligible to minor adverse.

Conclusion

Construction of a new parking lot and trail under alternative B would disturb, modify and expose soils as the result of grading and other construction activities would result in short term, negligible to minor adverse impacts on soils. The reseeded of the removed gravel parking lot would work to return soil potential resulting in long-term beneficial impacts. The loss, modification and disturbance of soils from the construction of a new parking lot and trail would and the increased potential for storm water runoff and erosion results in long-term, minor adverse impacts on soils. Cumulative impacts on the soils would be long-term, negligible to minor adverse.

WETLANDS

METHODOLOGY AND ASSUMPTIONS

The NPS has adopted a policy of “no net loss” of wetlands. Executive Order 11990, Protection of Wetlands, states that federal agencies are to avoid to the extent possible long-term and short-term impacts associated with the destruction or modification of wetlands and avoid direct and indirect support of new construction in wetlands whenever practical alternatives exist. The USACE regulates development in wetland areas pursuant to Section 404 of the *Clean Water Act* (33 CFR, Parts 320-330). NPS Director’s Order 77-1: Wetland Protection and Procedural Manual (NPS 2008b, 2008c) provides NPS policies and procedures for complying with Executive Order 11990 (1977), as follows.

Actions proposed by the NPS that have the potential to have adverse impacts on wetlands will be addressed in an EA or an environmental impact statement. If the preferred alternative in an EA or environmental impact statement will result in adverse impacts on wetlands, a “Statement of Findings” documenting compliance with Director’s Order 77-1 and Procedural Manual 77-1 will be completed. Actions that may be excepted from the Statement of Findings requirement are identified in the Procedural Manual.

Impact analysis and the conclusions for possible impacts to wetlands were based on review of existing literature and studies and information provided by park staff and other agencies. Locations of wetlands were also overlain with the proposed visitor access improvements.

STUDY AREA

The geographic study area for impacts on wetlands includes the project area for the proposed actions in the Home of FDR NHS as well as associated areas owned by Scenic Hudson Land Trust, Inc. It is expected that construction activities would not occur outside these areas. The study area for cumulative analysis includes the project area in the Home of FDR NHS.

IMPACT DEFINITIONS

Impact analysis and the conclusions for possible impacts to wetlands were based on review of existing literature and studies and information provided by park staff and other agencies. Where possible, locations of wetlands were overlain with the proposed visitor access improvement activities to determine impacts to wetlands.

The following definitions were used to determine the magnitude of impacts on wetlands:

Negligible: A barely measurable or perceptible change in wetland size, integrity, or continuity could occur.

Minor: The impact would be easily measurable or perceptible. A small change in size, integrity or continuity could occur due to impacts such as construction related runoff. However, the overall viability of the resource would not be affected.

Moderate: The impact would be sufficient to cause an appreciable change in at least one wetland parameter-- size, integrity, or continuity—and resource viability could be affected.

Major: The action would result in a substantial change in multiple parameters (size, integrity, and continuity) or a loss of large wetland areas. The impact would be substantial and highly noticeable.

Beneficial: The action would improve wetland functions.

Duration: Short-term impacts occur during all or part of alternative implementation; long-term impacts extend beyond implementation of the alternative.

Impacts of Alternative A: No Action

Analysis

In the no action alternative, access to Roosevelt Farm Lane would continue from the existing parking areas. No new access would be constructed and no wetlands would be disturbed. There are no existing threats to wetlands under existing management practices that would constitute an impact to wetlands under this alternative. There would therefore be no impact on wetlands under the no action alternative.

Cumulative Impacts

There would be no impacts on wetlands from cumulative projects, as there would be no impacts on wetlands under the no action alternative.

Conclusion

Implementation of the no action alternative would result in no impact on wetlands and there would be no impacts from cumulative projects.

Impacts of Alternative B: Access and Trailhead Improvements

Analysis

Under alternative B, access to Roosevelt Farm Lane from the proposed parking area is not possible without some impacts to wetlands. The trail improvements would include the erection of a walking bridge over the stream and an elevated walkway over the smaller wetland (Wetland BC) where it is relatively narrow and mostly scrub/shrub, so no trees would be affected.

The stream crossing would be constructed to avoid impacts to stream or wetland resources, using an 18-foot span, supported by concrete abutments on either side of the water course. The abutments would be located outside of the wetland area and the limits of disturbance during construction would be outside the wetland area.

The wetland crossing would require placement of additional concrete abutments and up to 12 posts to support the walkway over the wetland, which would be 14 feet wide and approximately 50 feet long. It is estimated that two square feet of wetland fringe would be affected by the placement of the concrete abutment in this area, and that placement of the pilings to support the walkway would create a maximum permanent disturbance of no more than 12 square feet, depending on the construction method used, resulting in a maximum overall disturbance of 20 square feet. The impacts to wetlands would therefore be negligible adverse in both the short and long term.

Because far less than 0.1 acre of wetlands would be affected overall in this project, and it is for an excepted activity, no mitigation would be required under the NPS Director's Order 77-1: Wetlands Protection (NPS 2008b). The project would also likely qualify under a Nationwide General Permit #25 for dredge and fill in wetlands, and would also not require mitigation in the form of wetland creation or enhancement or other similar activities. Construction would be conducted consistently with sediment and erosion control guidelines, which would protect the stream and wetlands from impacts from sediment runoff and erosion during storm events that could adversely affect wetland function.

A statement of findings would not be necessary, as the activities will affect less than 0.1 acre of wetlands and the activity is an excepted action under Section 4.2.1 (a) of Director's Order 77-1, for scenic overlooks, trails and boardwalks in instances where disturbance is less than 0.1 acre and whose primary purposes are public education, interpretation, or enjoyment of wetland resources. As this trail is proposed to improve access to the historic Roosevelt Farm Lane trail was used by President Roosevelt and links two very important areas of this NHS.

Cumulative Impacts

The cumulative projects include the restoration of Roosevelt Farm Lane and a Trail Master Plan. Roosevelt Farm Lane had long-term negligible to minor impacts on wetlands, in the form of some fill on the side of the lane and in wetland fringe areas to raise the elevation of the lane, and improvement of an existing stream/wetland crossing.

The Trail Master Plan could potentially adversely impact wetlands, depending on the location of the proposed trails. Any impacts to wetlands would require mitigation, ensuring that any potential impacts would not be beyond minor.

When impacts from the visitor access improvements are combined with the two cumulative projects, overall impacts to wetlands are minimal, and would result in long-term, negligible to minor adverse cumulative impacts. The contribution of impacts to wetlands from the proposed project would be slight, as no more than 20 square feet of wetlands would be disturbed or filled in any alternative of the proposed project.

Conclusion

Impacts to wetlands from implementation of alternative B would be short- and long-term, negligible adverse and would be limited to a stream crossing and a wetland crossing, located in an area that would have the least impact. The crossings would cause long-term, negligible adverse impacts, and would be an

excepted activity under procedures for Director's Order 77-1 (NPS 2008b). Cumulative impacts to wetlands would be long-term, but negligible adverse.

WILDLIFE AND WILDLIFE HABITAT

METHODOLOGY AND ASSUMPTIONS

Information on wildlife species occurring in the project area was based on review of existing information on the area and consideration of common wildlife species likely to occur in the park. Analysis of potential impacts on wildlife was based on the potential for species to use the proposed project sites or to be affected by project activities or loss of habitat associated with the construction or operation of the new visitor access improvements.

STUDY AREA

The geographic study area for wildlife and wildlife habitat includes the project area for the proposed actions at the Roosevelt Farm Lane, the Home of FDR, and Eleanor Roosevelt's Val-Kill home. Construction and operation activities would not occur outside this area. The study area for cumulative analysis would be the same.

IMPACT DEFINITIONS

The following definitions were used to determine the magnitude of impacts on wildlife and wildlife habitat:

- Negligible:* There would be no observable or measurable impacts on native species, their habitats, or the natural processes sustaining them. Impacts would be well within natural fluctuations.
- Minor:* Impacts would be detectable, but they would not be expected to be outside the natural range of variability of native species' populations, their habitats, or the natural processes sustaining them. Mitigation measures, if needed to offset adverse impacts, would be slight and successful.
- Moderate:* Readily detectable impacts outside the range of natural variability would occur on native animal populations, their habitats, or the natural processes sustaining them. The change would be measurable in terms of population abundance, distribution, quantity, or quality, and would occur over a relatively large area. Mitigation to offset adverse impacts could be extensive, but would likely be successful.
- Major:* Readily apparent impacts outside the range of natural variability would occur on native animal populations, their habitats, or the natural processes sustaining them. The change would be measurable in terms of population viability and could involve the displacement, loss, or restoration of a wildlife or aquatic life population or assemblage. Mitigation measures to offset the adverse impacts would be required and would be extensive, and success of the mitigation measures would not be guaranteed.

Beneficial: A beneficial impact would occur when actions were taken to actively preserve, stabilize or return native animal populations, their habitats, or the natural processes sustaining them to their pre-existing condition.

Duration: Short-term impacts occur during the implementation of the alternative; long-term impacts extend beyond implementation of the alternative.

Impacts of Alternative A: No Action

Analysis

Under alternative A, visitors would continue to use the existing trailhead parking for Roosevelt Farm Lane located near Golden Manor on Route 9, with additional parking available on Route 9G. The connection between the Eleanor Roosevelt Val-Kill Estate and the Home of FDR Springwood Estate, visitor center, and library would continue to be Roosevelt Farm Lane, but with limited parking and the existing pedestrian crossings locations for both Route 9 and 9G. No construction activities to improve visitor access would occur.

The NPS would continue routine maintenance of Roosevelt Farm Lane and associated park facilities, to include mowing, cutting woody vegetation, pruning trees, chipping slash and woody debris, and removing burnable vegetation and other organic materials (NPS 2005). Routine maintenance helps to maintain or restore the sustainability of healthy ecosystems present at the park. This would result in long term benefits on wildlife and wildlife habitat through achieving resource benefits and park management goals that includes hazard fuels reduction, landscape preservation, invasive plant management, and maintaining field habitat (NPS 2005).

A temporary disturbance to wildlife could occur in these areas during the short duration of the maintenance activity, as noise and human presence would deter wildlife from using this area. These activities would be infrequent and short in nature, and it is expected that wildlife would return to using the site after completion of the maintenance activity. Continuation of current levels of maintenance, including routine mowing, occasional removal of vegetation debris, and hazard fuel reduction would have short-term, negligible adverse impacts on wildlife, as there would be occasional disturbance to species in the area, but no impact on overall population levels in the vicinity of the project area.

Cumulative Impacts

Impacts to wildlife and wildlife habitat within the park include impacts from land-disturbing activities. The Park has additional actions within the vicinity of the Home of FDR NHS, including the completed rehabilitation of Roosevelt Farm Lane and a Trail Master Plan. These projects could require some vegetation clearing. Impacts to wildlife and wildlife habitat from these cumulative actions would result in short and long-term negligible adverse impacts. Alternative A would have short, negligible adverse impacts to wildlife and long-term beneficial impacts to wildlife habitat. When combined with the impacts from the cumulative actions, alternative A would result in an overall short-term negligible adverse cumulative impacts on wildlife and beneficial cumulative impacts on wildlife habitat.

Conclusion

Alternative A would involve routine mowing, clearing of debris, and other vegetation management, which could temporarily displace wildlife, resulting in short-term negligible adverse impacts. However, continued maintenance would result in long-term beneficial impacts to wildlife habitat as it helps to

achieve park management goals for protecting and preserving wildlife habitat. Cumulative impacts would be short and long-term negligible adverse on wildlife and long-term beneficial on wildlife habitat.

Impacts of Alternative B: Access and Trailhead Improvements

Analysis

Under alternative B, the NPS would address improvements to visitor access from the Home of FDR NHS to Val-Kill by constructing a new 40 space parking along Route 9, a trail spur from the parking lot to the existing Roosevelt Farm Lane, improve a pedestrian crossing where Roosevelt Farm Lane ends at Route 9G, and install a signalized intersection on Route 9 at the entrance to the proposed parking lot and the existing entrance to the welcome center. Once the new parking lot is constructed, the current gravel parking lot for Roosevelt Farm Lane on Route 9 would be removed and the area reseeded. Additionally, at the Hyde Park drive-in theater site, the suburban appearance and materials would be removed to make way for open meadow or hay field divided into smaller fields with reconstructed dry-laid stone walls. Deteriorated stone walls bordering the east side of Route 9 would be restored and a four-foot berm would be created between Route 9 and the drive-in theater to reduce the visibility of the parking lot.

Implementation of visitor accessibility improvements under alternative B would likely displace those species that currently use the areas where the proposed activities would be taking place. This displacement would result from the increased human activity and noise associated with construction vehicles on the site. In addition, mortality or injury of some smaller, less mobile, species could occur as a result of construction activities. However, adverse impacts on wildlife would be considered minor because of the relatively small area being affected and the fact that there are other areas adjacent to the construction sites where displaced individuals could move that would provide adequate habitat. The loss or displacement of individuals of a non-threatened or endangered species would not jeopardize the viability of the populations in and adjacent to the NHS. These minor adverse impacts on wildlife would be short-term because they would only occur during the construction period. Following construction activities, it is expected that any displaced species would likely return to the area.

Approximately 1.5 acres of the total 9 acres of secondary growth forest habitat would be removed to construct the new parking lot and spur trail, and as part of the restoration of the historic landscape to open meadow or hay fields. Emerging wooded areas would also be cleared to restore the agricultural fields that historically existed on the FDR Estate. Construction of the parking lot and spur trail and restoration of the historic landscape in areas that are currently undisturbed natural wildlife habitat would result in the loss of those habitats. However, long-term adverse impacts on terrestrial wildlife habitat would be minor because of the relatively small area being affected and the majority of the land area between Route 9 and Route 9G is forested. Some beneficial impacts would also result from the transition of forested habitat to open meadow for species that utilize this type of habitat – such as deer and various birds. Removal and reseeded of the interim gravel parking lot for Farm Lane would also result in long-term beneficial impacts to wildlife as the area is returned to natural conditions.

The proposed spur trail would cross over an intermittent stream and wetland BC (figure 6). These crossings would be constructed to avoid impacts to stream and wetland habitat, using an 18-foot span, supported by concrete abutments located outside of the stream and wetland area. Measures to protect water quality would include silt fencing along the wetland and stream crossings as well as along the tree line to the east of the drive-in theater, where the project area is close to the stream. Short-term negligible impacts to the stream habitat would be expected.

The wetland crossing would require placement of additional concrete abutments and up to 12 posts to support the walkway over the wetland areas, which would be 14 feet wide and approximately 50 feet

long. It is estimated that two square feet of wetland fringe habitat would be affected by the placement of the concrete abutment, and placement of the pilings to support the walkway would create a maximum permanent disturbance of no more than 12 square feet, resulting in a maximum overall disturbance of 20 square feet. Impacts to wetland habitat would be long-term negligible adverse and would not adversely affect the total population of any one of the species aquatic or terrestrial inhabiting the area, resulting in long term negligible adverse impacts.

Once construction is complete, species would be expected to resume using the wetland habitat located in and adjacent to the project area. As a result, there would be short-term negligible adverse impacts on those species and their habitats that lie within the footprint of the spur trail that is proposed to cross stream and wetland areas. Construction would be conducted consistently with sediment and erosion control guidelines, which would protect the stream and wetland habitat from impacts from sediment runoff and erosion during storm events.

Cumulative Impacts

Impacts to wildlife and wildlife habitat from cumulative actions would be the similar to those under Alternative A, resulting in short and long term negligible adverse impacts. Alternative B would have short-term and long-term, negligible to minor adverse impacts to wildlife from the displacement of wildlife during construction activities and clearing and removal of forested habitat. When combined with the impacts from the cumulative actions, alternative B would result in an overall long-term negligible adverse impact to wildlife and wildlife habitat.

Conclusion

Implementation of visitor accessibility improvements under alternative B would result in short-term minor adverse impacts on terrestrial wildlife during the construction period. Following construction activities, it is expected that any displaced species would likely return to the area. Long-term minor adverse impacts would result from the permanent removal of approximately 1.5 acres of forested habitat. During construction activities, there would be short-term negligible adverse impacts on stream and wetland habitat and species inhabiting wetland areas that lie within the footprint of the spur trail. Long-term negligible adverse impacts on wetland habitat would result from placement of pilings to support the wetland crossings. Alternative B would result in an overall long-term negligible adverse cumulative impact to wildlife and wildlife habitat.

TRANSPORTATION

METHODOLOGY AND ASSUMPTIONS

The purpose of this impact analysis is to assess the effects of the alternatives on the existing transportation system within the transportation study area. The following elements comprise the transportation system: the roadway network, parking, public transportation and pedestrians. To determine impacts, the existing transportation system elements were considered and the potential effects of the construction of the proposed actions on the various transportation system elements were qualitatively analyzed.

STUDY AREA

The study area for transportation includes the project area, the Home of FDR NHS and Val-Kill properties, Roosevelt Farm Lane, the two intersections that would be improved under the proposed project—Route 9 at the Wallace Center entrance and Route 9G at the Val-Kill entrance/ Roosevelt Farm

Lane Trailhead—and the immediately surrounding area. The study area for cumulative impacts analysis encompasses the entire Roosevelt-Vanderbilt NHSs as well as the immediately surrounding area.

IMPACT DEFINITIONS

The following definitions were defined for transportation:

- Negligible:* There would be no noticeable change in transportation conditions. Mitigation measures would not be warranted by such negligible change.
- Minor:* Adverse changes in transportation conditions would be slight and detectable. If mitigation were needed, it would be relatively simple and would likely be successful.
- Moderate:* Adverse changes in transportation conditions would be clearly evident and may negatively affect park visitation and usage. Mitigation likely would be necessary and probably would be successful.
- Major:* Adverse changes in transportation conditions would be so substantial that park access and visitation/usage would be adversely impacted. Extensive mitigation measures would be needed, and success would not be guaranteed.
- Beneficial:* A beneficial impact would occur when actions were taken to improve transportation conditions over existing conditions.
- Duration:* Short-term impacts would be immediate, occurring during construction of the proposed action. Long-term impacts would persist after implementation of the alternative.

Impacts of Alternative A: No Action

Analysis

Roadway Network

No changes to the roadway network would occur under alternative A. As discussed in chapter 3, a traffic analysis was completed for the following two intersections: Route 9 at the Wallace Center entrance, and Route 9G at the Val-Kill entrance. In order to analyze the intersections for 2013 future conditions, the 2008 Peak traffic data was projected five years to 2013; a growth rate of 0.7 percent per year was used for Route 9 and Route 9G traffic. A growth rate of 1.0 percent per year was used. The data were analyzed and the results of the LOS analyses are presented in table 5.

TABLE 5: LEVEL OF SERVICE ANALYSIS (2013)

Intersection	Route 9 / Home of FDR Entrance			Intersection	Route 9G/ Val-Kill		
	AM	PM	SAT		AM	PM	SAT
2013 Peak							
Movement				Movement			
North Bound In	B	A	B	North Bound In Val-Kill			
South Bound In				South Bound In Val-Kill	A	B	A
Out Left	C	C	C	North Bound in RFL*	A	A	A
Out Right	C	C	C	South Bound in RFL*			
				Out Left Val-Kill	C	F	D
				Out Left RFL*	C	E	D

*RFL = Roosevelt Farm Lane.

Source: Dewkett Engineering 2008.

The LOS would remain the same as under existing conditions at all movements except for the out left turn at Roosevelt Farm Lane parking lot. For the outbound left turning movement, under alternative A the LOS would decline from LOS D under existing conditions to LOS E during the PM peak hour period, resulting in a long-term, moderate adverse impact.

Analysis of Existing Left Turn Lane

The intersection of Route 9 and the Home of FDR NHS entrance includes a left turn lane for northbound traffic into the park. The LOS analysis indicates that under future conditions the movement would experience a LOS of A or B for all cases analyzed, no different than under existing conditions. Based on the LOS analysis, alternative A would have no impact on the existing left turn lane at the intersection of Route 9 and the park entrance. Currently, the NPS reports that six or more vehicles are often seen queued at the turning lane during major park events and that the turning lane length is not sufficient for that queue of vehicles.

Parking

Under alternative A, visitors to the Home of FDR NHS and Val-Kill locations would continue to utilize the on-site parking available at both NPS sites. Those visiting Roosevelt Farm Lane would use the limited amount of existing parking available at the trailheads off of both Route 9 and Route 9G which are often filled to capacity during peak visitation hours. Impacts to parking under alternative A would be long-term, minor adverse due to the inability to meet the desired capacity.

Public Transportation

Under alternative A, there would be no impacts to public transportation. The Metro-North Commuter Railroad and Amtrak have station stops in Poughkeepsie, approximately five miles south of the Home of FDR NHS and Val-Kill locations, with taxi service available from the Poughkeepsie train station. Additionally, the NPS offers seasonal operation of the Roosevelt Ride shuttle bus service from the Poughkeepsie Metro-North Train Station to the Home of FDR NHS. The shuttle service stops at each of the Roosevelt-Vanderbilt NHS locations, operating seven days a week from May through October. It is expected that the Dutchess County LOOP bus system would continue to operate under alternative A.

Pedestrians

Pedestrian-related improvements would not occur under alternative A. Pedestrians traveling between Val-Kill and the Home of FDR NHS using Roosevelt Farm Lane would use the existing Route 9G and Route 9 crosswalks. The existing Route 9 crosswalk would continue to be underutilized under alternative A due to several factors such as the small capacity of the existing trailhead parking and the lack of a traffic calming features at the crosswalk. During times of peak roadway use pedestrians may face high traffic volumes as they traverse Routes 9 and 9G via existing crosswalks. As a result, impacts to pedestrians under alternative A would be long-term, minor adverse

Overall, alternative A would result in long-term, negligible to moderate adverse impacts with respect to the transportation system.

Cumulative Impacts

NPS projects within the vicinity of the Home of FDR NHS, including the restoration of Roosevelt Farm Lane, have increased the pedestrian accessibility between Val-Kill and Home of FDR NHS, and thus have resulted in a long-term beneficial impact on transportation. Future planning actions include the Trail Master Plan, which would study potential locations for bicycle and pedestrian trails within the Roosevelt-Vanderbilt NHS. The Trail Master Plan would result in long-term beneficial impacts to transportation by further increasing connectivity throughout the management unit.

Overall, alternative A would have long-term, negligible to moderate adverse impacts to the roadway network, parking, public transportation, and pedestrians. When combined with the beneficial impacts from the cumulative actions, alternative A would result in long-term, minor adverse cumulative impacts to transportation.

Conclusion

Alternative A would result in long-term, negligible to moderate adverse impacts to the various elements of the transportation due to the limited amount of parking for Roosevelt Farm Lane and the time needed to cross Route 9 during periods of peak traffic volume. When considered in combination with other projects in the study area, there would be long-term, minor adverse cumulative impacts to transportation.

Impacts of Alternative B: Access and Trailhead Improvements

Analysis

Roadway Network

Alternative B would include a fully-actuated signalized, four-way intersection with the existing entrance to the Home of FDR visitor center lined up opposite the proposed entrance that would serve the Hyde Park drive-in theater and proposed parking lot. Alternative B also would include the removal of the existing Hyde Park drive-in theater entrance currently situated just north of the Home of FDR NHS on the east side of Route 9 and closure of the existing Roosevelt Farm Lane parking lot and entrance. Additionally, the existing crosswalk south of the Wallace Center entrance would be removed and relocated to the new four-way intersection. The traffic signal at the newly configured Route 9 intersection would feature pedestrian crossing actuation, and would also be actuated by vehicles entering and exiting the Home of FDR NHS and proposed parking lot. Traffic calming measures, such as a pedestrian cross sign with base in the middle of the roadway, advanced crosswalk sign, detectable warning tile, yellow pavement markings, and raised bulb-outs, would also be added on both sides of the crossing.

Alternative B would also improve a pedestrian crossing where Roosevelt Farm Lane ends at Route 9G to enable visitors to safely cross Route 9G en route to and from the Val-Kill property. Traffic calming measures would also be included at the Route 9G improved pedestrian crossing.

An operational analysis was prepared for traffic signals using the Highway Capacity Manual software in order to determine the LOS for the proposed signal at the Route 9 intersection. Table 6 indicates the results of the analysis.

TABLE 6: SIGNALIZED INTERSECTION LEVEL OF SERVICE ANALYSIS (2008 AND 2013)

Intersection	Route 9 / Home of FDR NHS		
	AM	PM	SAT
2008 Peak			
Movement			
North Bound	A	C	B
South Bound	C	B	B
North Bound In	A	A	A
South Bound In	C	B	B
Out Left	D	D	D
Out Right	C	C	C
Overall LOS	B	B	B
2013 Peak			
Movement			
North Bound	A	B	B
South Bound	C	B	B
North Bound In	A	A	A
South Bound In	C	B	B
Out Left	D	D	D
Out Right	C	C	C
Overall LOS	B	B	B

*RFL = Roosevelt Farm Lane.

Source: Dewkett Engineering 2008.

Based on the LOS analysis results, the proposed installation of a traffic actuated signal would improve northbound traffic flow on Route 9 during the afternoon peak period, increasing the LOS from LOS C to LOS B during the PM peak. The overall LOS for the intersection would not change for any peak period under alternative B and would remain acceptable at LOS B.

Beneficial impacts to the roadway network under alternative B would include the combination of three offset highway entrances into one aligned entrance with traffic control (existing trailhead parking lot, the southern entrance/exit for the Hyde Park drive-in theater and the northern exit to the Hyde Park drive-in theater), the elimination of a mid-block pedestrian crosswalk, and the incorporation of a crosswalk into the four-way signalized intersection.

Therefore, alternative B would result in long-term, beneficial impacts to traffic movements due to the enhanced operational and safety aspects of roadway network.

Parking

Alternative B would increase the amount of parking for the Roosevelt Farm Lane users. This parking lot would have the capacity for the volume of vehicles anticipated during peak visitor use of Roosevelt Farm Lane. The existing six-space, gravel parking area further south would be closed and reseeded. Visitors to the Home of FDR NHS and Val-Kill locations would continue to utilize the on-site parking available at both NPS sites, and those wishing to access Roosevelt Farm Lane from Route 9G would continue to utilize the parking area available at the eastern end of the trailhead, off of Route 9G. Alternative B would result in long-term, beneficial impacts to parking due to the addition of 34 parking spaces.

Public Transportation

Impacts to public transportation under alternative B would be similar to those described under alternative A. Implementation of alternative B would result in no impacts to public transportation.

Pedestrians

Under alternative B, pedestrian activity would be expected to increase as a result of the proposed four-way intersection configuration with a pedestrian crossing and the proposed larger parking lot for the trailhead. Alternative B proposes improvements to the existing crosswalk on Route 9G and the installation of a pedestrian-actuated signal at the Route 9. The implementation of alternative B would make it safer for pedestrians crossing Route 9G as a result of the traffic calming measures and the increased visibility of the pedestrian crossing. With respect to Route 9, the pedestrian-actuated traffic signal and traffic calming measures would give pedestrians the right of way when crossing to and from the Home of FDR NHS, decreasing the wait time needed to cross the roadway. Therefore, alternative B would help to ensure that the increased number of pedestrians cross Routes 9 and 9G in a safe and efficient manner, resulting in long-term beneficial impacts.

Alternative B would include a 1,000-foot trail spur from the proposed new parking lot to the existing Roosevelt Farm Lane, providing a connection to that trail. The trail spur would be a multi-use trail designed to accommodate pedestrians, bicycles, a park shuttle and emergency vehicles and would be able to withstand loading similar to Roosevelt Farm Lane. The Val-Kill property currently utilizes a tram to transport visitors throughout the site. In the future, the NPS would like to use the tram system to transport visitors from the FDR Home NHS to Val-Kill using Roosevelt Farm Lane and spur trail which would increase visitor access to park resources. Additional improvements include a bike rack and pedestrian shelter east of the proposed new parking lot, as well as the construction of a sidewalk along the eastern side of Route 9. Pedestrian connectivity would be substantially improved under alternative B, resulting in long-term beneficial impacts.

Overall, alternative B would result in long-term, beneficial impacts to the transportation network. During the six-month construction period, visitors may be subject to short-term adverse impacts (e.g., while the intersection and pedestrians crossing improvements are completed and the spur trail is connected with the existing Roosevelt Farm Lane). Roosevelt Farm Lane would not be closed during construction; however, temporary closures may be required as the spur trail construction nears the existing trail to ensure visitor safety. These short-term, minor adverse impacts would only last during the construction period.

Cumulative Impacts

Impacts to transportation from completed cumulative actions, such as the recently completed restoration of Roosevelt Farm Lane and the Trail Master Plan, would be similar to those under the alternative A resulting in long-term beneficial impacts. Alternative B would result in short-term, minor adverse impacts during construction and long-term, beneficial transportation impacts. When considered in combination with the impacts from the cumulative actions, alternative B would result in an overall long-term, beneficial cumulative impact to roadway capacity, parking, pedestrians and public transportation.

Conclusion

Implementation of alternative B would result in short-term, minor adverse impacts to transportation during construction. Additionally, alternative B would result in long-term, beneficial impacts to transportation given the pedestrian improvements, traffic calming measures, signalized and realigned Route 9/Wallace Center intersection, new parking lot, and new trail spur. Cumulative impacts to transportation would be long-term and beneficial.

CHAPTER 5: CONSULTATION AND COORDINATION

COORDINATION LETTERS

Coordination with state and federal agencies was conducted during the NEPA process to identify issues and concerns related to natural and cultural resources within the Home of FDR NHS.

STATE-LISTED SPECIES

The NPS began coordination with the NYSDEC Natural Heritage Program on September 17, 2010, soliciting input on any species of concern within the project area. NYSDEC replied on October 12, 2010, and identified several potential rare or state-listed species and ecological communities that occur or may occur in the project area or in the immediate vicinity. State-listed species include Blanding's turtle (*Emydoidea blandingii*) and swamp cottonwood (*Populus heterophylla*) and ecological communities include Rocky Cedar Summit and Hemlock Northern Hardwood Forest.

The two community types were evaluated against the current vegetation map and were determined to not occur within the project area. The NPS evaluated the project area for Blanding's turtle and swamp cottonwood and found that the area does not contain appropriate habitat for either species. In a response dated January 11, 2011, the NYSDEC stated that Wetland AB could provide potential habitat for the swamp cottonwood and requested the area be surveyed during the growing season (May through September). Although Wetland AB would not be impacted by the proposed construction, the NPS will comply with this request. Appendix A contains all correspondence between the NPS and NYSDEC.

SECTION 7 OF THE *ENDANGERED SPECIES ACT*

After the completion of habitat surveys for the two federally listed species potentially found within the project area, the NPS began Section 7 consultation with the USFWS on December 20, 2010. The consultation letter states that a habitat survey for the bog turtle (*Clemmys muhlenbergii*) found no suitable habitat within the project area. The consultation also stated that potential roost trees were found for the Indiana bat (*Myotis sodalis*) and that the site plan had been revised to avoid potential roost trees in all but two tree cluster locations. Mitigation for the removal of the tree clusters included limiting tree removal to outside of the roosting season, or between November 1 and March 1. The NPS determined the proposed action was "not likely to adversely affect" the Indiana bat and sought concurrence from the USFWS. On January 19, 2011, the USFWS requested additional information, including the final acreage of forest to be removed as well as clarification on when tree removal would take place. The NPS provided the requested information and on January 21, 2011 the USFWS provided concurrence of no effect (bog turtle) and not likely to adversely affect (Indiana bat).

SECTION 106 OF THE *NATIONAL HISTORIC PRESERVATION ACT*

The Phase I archeology survey was sent to the SHPO on January 25, 2011 with a letter beginning Section 106 consultation. The Section 106 process for this project is being conducted in conjunction with the NEPA process. On March 11, 2011 the SHPO responded and confirmed that the project would have no adverse effect on cultural resources.

This EA will be made available to the public and distributed to affected/interested agencies for a 30-day review and comment period. Notice of its availability will be posted on the NPS "Planning, Environment, and Public Comment" (PEPC) website at www.parkplanning.gov/HOFR.

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CHAPTER 6: GLOSSARY AND ACRONYMS

GLOSSARY OF TERMS

Affected environment—The existing environment to be affected by a proposed action and alternatives.

Archeological resource—Any material remnants or physical evidence of past human life or activities which are of archeological interest, including the record of the effects of human activities on the environment. They are capable of revealing scientific or humanistic information through archeological research. Any material remnants of human life or activities which are at least 100 years of age, and which are of archeological interest (32 CFR 229.3(a)).

Archeological survey—Archeological survey is the process of using explicitly specified methods to prospect for archeological sites- appropriate survey methods vary widely for different environments and archeological resource types.

Artifact—A material object made or modified in whole or in part by man. Among the most common artifacts on archeological sites are fragments of broken pottery (sherds), stone tools, chips (debitage), projectile points, and similar lithic debris.

Berm—A raised earthen area.

Bulb-Out—A traffic calming measure, primarily used to extend the sidewalk, reducing the crossing distance and allowing pedestrians about to cross and approaching vehicle drivers to see each other.

Consultation—The act of seeking and considering the opinions and recommendations of appropriate parties about undertakings that might affect properties on the National Register. Appropriate parties ordinarily include the State Historic Preservation Officer and Advisory Council on Historic Preservation. Consultation is very formal and procedurally oriented. Correct procedures are promulgated in 36 CFR 800.

Contributing resource—A building, site, structure, or object that adds to the historic significance of a National Register property or district.

Council on Environmental Quality (CEQ)—Established by Congress within the Executive Office of the President with passage of the *National Environmental Policy Act* of 1969. CEQ coordinates federal environmental efforts and works closely with agencies and other White House offices in the development of environmental policies and initiatives.

Criteria of effect—Standards promulgated by Advisory Council on Historic Preservation (NRHP) in (36 CFR 800) and applied to determine whether an undertaking will affect any property on NRHP.

Effect: The Federal action on a NRHP property or eligible property that results in a change, beneficial or adverse, in the quality or characteristics that qualify the property for inclusion on the NRHP. **Adverse Effect:** action that results in the total or partial destruction or alteration on a NRHP property or eligible property. Adverse effect may also result if a property is isolated from its surrounding environment, if neglect of the property results in the deterioration or destruction of the property, and/or if the land occupied by the property is sold or transferred, and there are no provisions in the deed or transfer agreement to provide for the preservation, maintenance, or use of the property, etc.

Cultural landscape—A geographic area, including both cultural and natural resources and the wildlife or domestic animals therein, associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values.

Cultural resources—Historic districts, sites, buildings, objects, or any other physical evidence of human activity considered important to a culture, subculture, or community for scientific, traditional, religious, or any other reason.

Enabling legislation—National Park Service legislation setting forth the legal parameters by which each park may operate.

Environmental assessment (EA) — An environmental analysis prepared pursuant to the *National Environmental Policy Act* to determine whether a federal action would significantly affect the environment and thus require a more detailed environmental impact statement.

Ethnographic resource—A site, structure, object, landscape, or natural resource feature assigned traditional legendary, religious, subsistence, or other significance in the cultural system of a group traditionally associated with it.

Executive Order—Official proclamation issued by the President that may set forth policy or direction or establish specific duties in connection with the execution of federal laws and programs.

Finding of No Significant Impact (FONSI)—A document prepared by a federal agency showing why a proposed action would not have a significant impact on the environment and thus would not require preparation of an Environmental Impact Statement. A FONSI is based on the results of an environmental assessment.

Historic district—A geographically definable area, urban or rural, possessing a significant concentration, linkage, or continuity of sites, landscapes, structures, or objects, united by past events or aesthetically by plan or physical developments. A district may also be composed of individual elements separated geographically but linked by association or history.

Museum object—Assemblage of archeological objects, objects, works of art, historic documents, and/or natural history specimens collected according to a rational scheme and maintained so they can be preserved, studied, and interpreted for public benefit. Museum objects normally are kept in park museums, although they may also be maintained in archeological and historic preservation centers.

National Environmental Policy Act of 1969 (USC 432 1-4347) (NEPA)—The act as amended articulates the federal law that mandates protecting the quality of the human environment. It requires federal agencies to systematically assess the environmental impacts of their proposed activities, programs, and projects including the “no action” alternative of not pursuing the proposed action. NEPA requires agencies to consider alternative ways of accomplishing their missions in ways which are less damaging to the environment.

National Historic Preservation Act of 1966 (16 USC 470 et seq.)—An act to establish a program for the preservation of historic properties throughout the nation, and for other purposes, approved October 15, 1966 [Public Law 89-665; 80 STAT.915; 16 USC 470 as amended by Public Law 91-243, Public Law 93-54, Public Law 94-422, Public Law 94-458, Public Law 96-199, Public Law 96-244, Public Law 96-515, Public Law 98-483, Public Law 99-514, Public Law 100-127, and Public Law 102-575].

National Register of Historic Places (NRHP or National Register)—A register of districts, sites, buildings, structures, and objects important in American history, architecture, archeology, and culture, maintained by the Secretary of the Interior under authority of Section 2(b) of the *Historic Sites Act* of 1935 and Section 101(a) (1) of the *National Historic Preservation Act* of 1966, as amended. The National Register provides for three levels of significance: national, state, and local.

National Historic Landmark (NHL)—A property designated by the Secretary of the Interior under authority of the *Historic Sites Act* of 1935 as having exceptional significance in the nation's history. NHLs are automatically listed on the NRHP and subject to all preservation requirements.

Organic Act—Enacted in 1916, this act commits the National Park Service to making informed decisions that perpetuate the conservation and protection of park resources unimpaired for the benefit and enjoyment of future generations.

Period of significance—The span of time in which a property attained the significance for which it meets the National Register criteria.

Planning, Environment, and Public Comment—The National Park Service website for public involvement. This site provides access to current plans, environmental impact analyses, and related documents on public review. Users of the site can submit comments for documents available for public review.

Scoping—Scoping, as part of the *National Environmental Policy Act*, requires examining a proposed action and its possible impacts; establishing the depth of environmental analysis needed; determining analysis procedures, data needed, and task assignments. The public is encouraged to participate and submit comments on proposed projects during the scoping period.

Section 106—Refers to Section 106 of the *National Historic Preservation Act* of 1966, which requires federal agencies to take into account the effects of their proposed undertakings on properties included or eligible for inclusion in the National Register of Historic Places and give the ACHP a reasonable opportunity to comment on the proposed undertakings.

Significance—Significance of cultural resources is evaluated in terms of NRHP criteria published in 36 CFR 60.

State Historic Preservation Officer (SHPO)—Official appointed by the governor of each state and U.S. Territory, responsible for certain responsibilities relating to federal undertakings within the state.

ACRONYMS

ACHP	Advisory Council on Historic Preservation
BP	Before Present
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
dbh	diameter breast height
DM	Department Manual
EA	Environmental Assessment
ESA	<i>Endangered Species Act</i>
FDR	Franklin Delano Roosevelt
LOS	Level of Service
NEPA	<i>National Environmental Policy Act</i>
NHS	National Historic Site
NHPA	<i>National Historic Preservation Act</i>
NPS	National Park Service
NRHP	National Register of Historic Places (or National Register)
NWI	National Wetlands Inventory
NYSDEC	New York State Department of Environmental Conservation
NYNHP	New York Natural Heritage Program
NYSDOT	New York State Department of Transportation
PEPC	Planning, Environment, and Public Comment
SHPO	State Historic Preservation Office
THPO	Tribal Historic Preservation Office
USACE	United States Army Corps of Engineers
USC	United States Code
USFWS	United States Fish & Wildlife Service

CHAPTER 7: BIBLIOGRAPHY

Auwaerter, J.

- 2003 Land-Use History Summary for the Roosevelt Lands Between Routes 9 and 9-G: Interim Findings of the 709 Historic Resource Study for the Home of Franklin D. Roosevelt National Historic Site. National Park Service, Brookline, Massachusetts. On file, The Louis Berger Group, Inc., Albany, New York.

Council on Environmental Quality (CEQ)

- 1978 Executive Office of the President. 1978. Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act. Code of Federal Regulations Title 40, Parts 1500-1508. Washington D.C.

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe

- 1979 *Classification of Wetlands and Deepwater Habitats of the United States*. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C.

Dewkett Engineering

- 2008 Traffic Analysis for Wallace Center and Val-Kill Center Entrances. December 9, 2008.

Environmental Protection Agency (EPA)

- n.d. *Red Maple Swamp*. Available:
http://www.epa.gov/ne/ge/thesite/restofriver/reports/final_era/A%20-%20Natural%20Community%20Profiles/red_maple_swamp.pdf. Accessed on September 14, 2010

Erdman and Anthony

- 2010 Memorandum: NPS Wallace Center Intersection Alternatives. Katherine A. Dewkett. September 24, 2010.

Harmon, J., C. Keck, D. Hayes, and W. Cooney

- 2006 Combined Phase IA/IB Archeological Survey, Historic Core and Curnan Property Areas, Eleanor Roosevelt National Historic Site, Town of Hyde Park, Dutchess County, New York. Prepared for Roosevelt- Vanderbilt National Historic Site, Hyde Park, New York. On file, The Louis Berger Group, Inc., Albany, New York.

Hayes, D.

- 2010a Personal Communication. Dave Hayes, NPS and Rebecca Byron, LBG. December 10, 2010.
- 2010b Personal Communication. Dave Hayes, NPS and Rebecca Byron, LBG. Comments on internal draft: Chapters 1 and 2. October 26, 2010.
- 2010c Personal Communication. Dave Hayes, NPS and Rebecca Byron, LBG. September 20, 2010.
- 2011 Personal Communication. Dave Hayes, NPS and Rebecca Byron, LBG. February 9, 2011.

Keck, C.A.

- 2004 Phase III Archeological Investigations for the Henry A. Wallace Visitor Center, Home of Franklin D. Roosevelt National Historic Site, with Results of Three Additional Phase I Archeological Surveys within the Project Area. United States Department of the Interior. On file, New York State Office of Parks, Recreation, and Historical Preservation, Peebles Island, Waterford.

The Louis Berger Group, Inc. (LBG)

- 2011 Phase I Archeological Survey, Visitor Access Improvements, Home of Franklin D. Roosevelt National Historic Site, Hyde Park, Dutchess County, New York. Albany, New York. January 2011.

Mead, L.A.

- 2000 *Phase I Archeological Survey, Kessler Property Maintenance Facility, Hyde Park, New York*. On file, New York State Office of Parks, Recreation, and Historical Preservation, Peebles Island, Waterford.

National Park Service (NPS)

- 1979 National Register of Historic Places Inventory – Nomination Form. Home of Franklin Delano Roosevelt National Historic Site. North Atlantic Region, National Park Service.
- 1998a National Register Bulletin #38, Guidelines for Evaluating and Documenting Traditional Cultural Properties. Accessible at:
<http://www.nps.gov/history/nR/publications/bulletins/nrb38/>.
- 1998b *NPS-28: Cultural Resources Management Guideline*
- 2000 Director's Order #42: Accessibility for Visitors with Disabilities in National Park Service Programs and Services
- 2001 Director's Order #12: Conservation Planning, Environmental Impact Analysis, and Decision-making and Handbook.
- 2004a *NPS-77: Natural Resources Management Reference Manual*.
- 2004b National Register Federal Program Regulations. Code of Federal Regulations, Title 36—Parks, Forests, and Public Property, Chapter I—National Park Service, Dept. of the Interior, Part 60—National Register of Historic Places. July 1, 2004.
- 2005 Draft Wildland Fire Management Plan. Roosevelt-Vanderbilt National Historic Sites. Hyde Park, New York. June 2005.
- 2006 *NPS Management Policies 2006*. Accessed online at:
<http://www.nps.gov/policy/MP2006.pdf>.
- 2007 Franklin Roosevelt Farm Lane Rehabilitation Project. Environmental Assessment. Review Copy. April 24, 2007 (Unpublished).

- 2008a Programmatic Agreement Among the National Park Service (U.S. Department of the Interior), The Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers for Compliance with Section 106 of the National Historic Preservation Act.
- 2008b Director's Order #77-1: Wetland Protection. Accessed online December 23, 2010, at: <http://www.nps.gov/policy/DOrders/DO77-1-Reissue.htm>.
- 2008c Procedural Manual #77-1: Wetland Protection. Accessed online December 23, 2010, at: http://www.nature.nps.gov/water/wetlands/Wetlands_Protection_Manuals.cfm.
- 2010a Eleanor Roosevelt National Historic Site. Management. <http://www.nps.gov/elro/parkmgmt/index.htm>. Website accessed December 8, 2010.
- 2010b Eleanor Roosevelt National Historic Site. Home Page. <http://www.nps.gov/elro/index.htm>. Website accessed December 8, 2010.
- 2010c National Park Service List of Classified Structures. <http://www.hscl.cr.nps.gov/insidenps/summary.asp>. Website accessed December 9, 2010.
- 2010d NPS Stats. Home of FDR National Historic Site: Annual Visitors. Accessed online November 10, 2010 at: <http://www.nature.nps.gov/stats/viewReport.cfm>
- 2010e Plan Your Visit. Home of FDR National Historic Site. Accessed November 20, 2010: <http://www.nps.gov/hofr/planyourvisit/index.htm>. Website updated September 27, 2010.
- 2010f *Visitor Access Improvements, Homes of Franklin D. Roosevelt National Historic Site, Hyde Park, Dutchess County, New York. Bog Turtle - Draft Phase 1 – Habitat Assessment.* December 2010.
- 2010g *Visitor Access Improvements, Homes of Franklin D. Roosevelt National Historic Site, Hyde Park, Dutchess County, New York. Indiana Bat-Habitat Assessment Potential Roost Trees.* November 2010.
- 2010h Abbreviated Final General Management Plan/Environmental Impact Statement. Roosevelt-Vanderbilt National Historic Sites.

National Research Council (NRC)

- 2000 *Highway Capacity Manual*. Transportation Research Board, Washington, D.C., 2000.

New York Natural Heritage Program (NYNHP)

- 2010 *Conservation Guide – Shrub Swamp*. <http://acris.nynhp.org/guide.php?id=9915>, Accessed on September 13, 2010

Nicholas, G.P.

- 1991 *Places and Spaces: Changing Patterns of Wetland Use in Southern New England. Man in the Northeast* 42:75-98.

Nowak, L.

- 2005 *Cultural Landscape Report for Eleanor Roosevelt National Historic Site*. Olmsted Center for Landscape Preservation, National Park Service.

Olson, S.

- 2011 Personal Communication between Sarah Olson (NPS) and Rudi Byron (LBG). March 3, 2011.

United States Army Corps of Engineers (USACE)

- 1987 *Corps of Engineers Wetlands Delineation Manual*. Environmental Laboratory. Vicksburg, Mississippi.

United States Department of Agriculture (USDA)

- 2001 Soil Survey Dutchess County, New York

United States Fish and Wildlife Service (USFWS)

- 2007 Indiana Bat (*Myotis sodalis*) Draft Recovery Plan: First Revision. U.S. Fish and Wildlife Service, Fort Snelling, MN. 258 pp.

Zick, K.

- 2010 Personal Communication. Kyle Zick, Kyle Zick Landscape Architecture, Inc. and Rebecca Byron, LBG. December 10, 2010.