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Part Four: Environmental Consequences

Introduction

In conjunction with the *Draft General Management Plan*, this *Draft Environmental Impact Statement* has been prepared to satisfy the requirements of the National Environmental Policy Act (NEPA) of 1969, as amended, which requires the evaluation of potential impacts resulting from federal actions or lands involving federal jurisdiction. NEPA procedures have been used to inform the public about possible undertakings with the potential to affect properties listed on or eligible for listing on the National Register for Historic Places.

The alternatives presented in this draft document establish management objectives and outline potential actions that may result from those objectives. The general nature of the alternatives dictates that the analysis of impacts is also general. Thus, although the National Park Service can make reasonable projections of likely impacts, these projections are based on assumptions that may eventually prove to be inaccurate. As a result, the environmental impact statement (EIS) is **programmatic** in character and presents an overview of potential impacts relating to each alternative. This EIS will serve as a foundation for further environmental compliance (including both NEPA and Section 106 of the National Historic Preservation Act) as actions are implemented.

The following chapter describes the probable consequences of the alternatives on cultural and natural resources, visitor use and experience, park operations and facilities, and the socioeconomic environment associated with the Roosevelt-Vanderbilt National Historic Sites. Impact topics were selected for analysis by determining which park resources or related elements would be affected by actions proposed under the three alternatives. Topics were also chosen to address planning issues and concerns. Resources and environmental concerns that would not be appreciably affected by any of the alternatives were eliminated from further consideration and are listed below. Actions and topics are addressed only where there is a potential impact.

Analyzing Impacts

Terms

As required by the National Environmental Policy Act of 1969, as amended, potential impacts are described in terms of type (positive or negative, direct or indirect), context (site-specific, local, or regional), duration (short-term or

long-term), and level of intensity (negligible, minor, moderate, or major). Cumulative impacts are also assessed. The NPS based these impact analyses and conclusions on a review of the existing literature and the professional judgment of subject matter experts within the park and other agencies. Where necessary and appropriate, this draft suggests mitigating measures to minimize or avoid impacts. The following general definitions are used throughout the impact analysis.

Type of Impact

"Type of impact" is the effect of an action on a resource.

Positive	A beneficial change in the condition or appearance of the resource or a change that moves the resource toward a desired condition.
Negative	A change that detracts from the appearance or condition of the resource or a change that moves the resource away from a desired condition.
Direct	An effect that is caused by an action and occurs at the same time and place.
Indirect	An effect that is caused by an action but occurs later in time or farther removed in distance, though still reasonably foreseeable.

Context

"Context" is the setting within which an impact is analyzed.

Site-specific	The impact would affect the project site.
Local	The impact would affect the park.
Regional	The impact would affect localities surrounding the park.

Duration of Impact

Short-term	Impacts only during construction or that last less than one year.
Long-term	Impacts that last longer than one year.

Level of Intensity

The level of intensity is measured by severity and magnitude of impact, i.e. negligible, minor, moderate, or major. Because the level of intensity varies by impact topic, intensity definitions are provided separately for each impact topic. (See Tables 4-1 through 4-5.)

Cumulative Impacts

In addition to direct and indirect impacts, the Council on Environmental Quality regulations, which implements NEPA, also requires assessment of cumulative impacts in the decision-making process for federal projects. Cumulative impacts are defined as the impact on the environment that results from an action when added to other present and reasonable foreseeable actions, regardless of what agency or person undertakes the action (40 CFR 1508.7). In defining the contribution of each alternative to cumulative impacts, the following terminology is used:

Imperceptible	The incremental effect contributed by the alternative to overall cumulative impacts is so small that it is impossible or extremely difficult to discern.
Noticeable	The incremental effect contributed by the alternative, while evident and observable, is still relatively small in proportion to the overall cumulative impact.
Appreciable	The incremental effect contributed by the alternative constitutes a large portion of the overall cumulative impact.

Impairment of Resources

In addition to determining the environmental consequences of the alternatives, National Park Service management policies require that potential effects be analyzed to determine whether proposed actions would impair the resources of the unit.

The fundamental purpose of the National Park System, established by its 1916 Organic Act and reaffirmed by the General Authorities Act, as amended, begins with a mandate to conserve resources and values. National Park managers must always seek to avoid or minimize, to the greatest degree practicable, negative impacts on resources and values. However, these laws give the NPS management discretion to allow impacts when necessary and appropriate to fulfill the purposes of a park, as long as the impacts do not constitute impairment of the affected resources and values. Although Congress has given the NPS this management discretion, it is limited by the statutory requirement that the NPS must leave the resources and values unimpaired unless a particular law directly and specifically provides otherwise.

A prohibited impairment is an impact that, in the professional judgment of the responsible NPS manager, would harm the integrity of contributing resources and values. This would include the opportunities that otherwise would be available for the enjoyment of those resources or values. An impact on any contributing resource or value may constitute an “impairment,” most likely if it affected a resource or value whose conservation would be (1) necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park, (2) key to the natural or cultural integrity of the park or to opportunities to enjoy it, or (3) identified as a goal in the park’s general management plan or

other relevant NPS planning documents. Impairment might result from NPS activities in managing a park, visitor activities, or activities undertaken by concessionaires, contractors, and others operating in the park. An impairment determination is provided in the “Impairment of Resources” section under the cultural and natural resource impact topics. No impairment determination is required for the visitor use and experience, socioeconomic environment, and park operations and facilities impact topics.

Impact Topics Considered

The National Environmental Policy Act requires that agencies consider whether a number of different possible issues require detailed analysis as impact topics. They cover a wide variety, ranging from air quality to threatened and endangered species to socioeconomic conditions. While some of these mandatory topics will be examined in greater depth, others have been dismissed from further analysis.

Based on the decision points, planning issues, and analysis of existing conditions, the following impact topics are considered and analyzed in this document:

- cultural resources (comprising cultural landscapes, historic buildings and structures, collections and archives, and archeological resources)
- natural resources
- visitor use and experience
- park operations and facilities
- socioeconomic environment

For a detailed description of these resources, please refer to Part Three: Affected Environment.

The impact topics are examined across the spectrum of activities associated with each of the alternatives, including those that are common to all alternatives. These impacts are interrelated; an activity generated in one topic area can affect another topic area. For example, a cultural resource-related activity would have an impact on cultural resources, but could also have an effect on visitor use or park operations.

Impact Topics Dismissed from Further Consideration

The NPS considered the following mandatory impact topics but did not analyze them further, because they were irrelevant to the alternatives, would have no discernible impacts, or required no more detailed work to understand their impacts.

AIR QUALITY

Roosevelt-Vanderbilt is designated a Class II area. The alternatives presented in this document make proposals to promote car-free access, increase energy efficiency, upgrade buildings and landscapes, and develop a new maintenance facility (which would be constructed to meet energy efficiency standards). Construction activities could produce an increase in fugitive dust from soil exposure and disturbance and increased exhaust from construction vehicles. However,

this effect would occur only during construction and would be localized. Pollution reductions related to promoting car-free access and increasing energy efficiency are expected to be of such a modest scale in comparison to the regional/state emissions as to be difficult to measure. Thus, this topic was dismissed from further analysis.

CARBON FOOTPRINT/CLIMATE CHANGE

On a global scale, changes in climate are associated with the increase in levels of greenhouse gases produced by the burning of fossil fuels and the extensive removal of vegetation, primarily tropical rainforests. Increases in greenhouse gas emissions could occur within the parks as a result of increased car-dependent visitation and the associated use of vehicles that burn fossil fuels, land deforestation, and new development that consumes fossil fuels for heating, cooling, and electricity. Although the alternatives include proposals to promote car-free access, increase energy efficiency, remove successional woody growth, upgrade buildings and landscapes, and develop a new maintenance facility (which would be constructed to meet energy efficiency standards), the scale of the proposals is such that the amount of increase or decrease of emissions in comparison to the regional/state emissions would be so minimal that this topic was dismissed from further analysis.

CONFORMITY WITH LOCAL LAND-USE PLANS

The existing and proposed land uses of Roosevelt-Vanderbilt NHS are in compliance with local land-use plans. In addition, no conflict is expected with existing state planning efforts. The implementation of the draft plan or any of the analyzed alternatives is not expected to conflict with local plans.

ENERGY, NATURAL OR DEPLETABLE RESOURCE REQUIREMENTS, AND CONSERVATION POTENTIAL

None of the alternatives would result in the extraction of resources from Roosevelt-Vanderbilt NHS. Under all alternatives, conservation principles would be applied to ensure the maintenance of the parks' natural resources.

ENVIRONMENTAL JUSTICE

All federal agencies are required to incorporate environmental justice into their missions by identifying and addressing disproportionately high and adverse human health or environmental effects of their programs and policies on minorities and low-income populations (Executive Order 12898). The planning team eliminated this impact topic from further evaluation because none of the alternatives presented in this document would result in disproportionately high adverse environmental effects on minority or low-income communities. There are no air or water pollution effects that would affect human health. Any economic impacts from employment, associated income, and construction are expected to be modest but positive. There would be no change in land use in the surrounding area that could affect minority or low-income communities.

FLOODPLAINS

Floodplains are defined by the NPS Floodplain Management Guideline (1993) as “the lowland and relatively flat areas adjoining inland and coastal waters, including flood-prone areas of offshore islands, and including, at a minimum, that area subject to temporary inundation by a regulatory flood.” The NPS has adopted the policy of preserving floodplain values and minimizing potentially hazardous conditions associated with flooding in 100- and 500-year floodplains. The alternatives presented in this document propose no major development or alterations within floodplains. Potential activities would be limited to trail upgrades and activities related to management of the viewshed and forest. Given that these activities would cause no change in the ability of the floodplain to convey floodwaters, or its values and functions, this topic was dismissed from further analysis.

SACRED SITES AND INDIAN TRUSTS

No known sacred sites (Executive Order 13007) or Indian trust resources (ECM95-2) are involved in the plan or proposals. The Delaware Nation and the Stockbridge-Munsee Community of Wisconsin have identified the lands of Roosevelt-Vanderbilt NHS as being within original Delaware territory. This group is considered a “traditionally associated people.” In January 2006, the planning team initiated the consultation process with the tribal representatives. As of this date, tribal representatives have raised no concerns or issues regarding sacred sites; therefore this topic was dismissed from further analysis.

NATURAL AMBIENT SOUNDSCAPES

The alternatives outlined in this document would not affect noise levels over the long term. During construction of facilities or landscape rehabilitation efforts, for example, short-term increases in noise levels could be expected in the site vicinity due to equipment use. However, any development would occur in a suburban area, where it is not unusual to hear machinery on occasion. Because any impacts on noise levels would be short-term and present no variance from current noise levels, this topic was dismissed from further analysis.

NATURAL LIGHTSCAPES

Generally, Roosevelt-Vanderbilt NHS is closed after dark and has few night programs, other than the annual Holiday Open Houses and night meetings at the Wallace Center. Park management limits the use of night lighting to levels required to ensure public safety around park facilities and to secure resources. The alternatives presented in this document propose no extension of the park hours into the evening and no significant increase in night programs. Because the alternatives would cause no perceptible change in the natural lightscape, this topic was dismissed from further analysis.

WATER RESOURCES

The NPS *Management Policies* state that the NPS will “take all necessary actions to maintain or restore the quality of surface waters and ground waters within

the parks consistent with the Clean Water Act and all other applicable federal, state, and local laws and regulations.” Construction activities outlined in the alternatives could result in an increase in fugitive dust from soil exposure and disturbance and potential fluid leaks from construction vehicles. These effects would occur only during construction, would be localized, and mitigation measures would be taken to protect water quality. Overall, the alternatives presented in this document would have no discernible impacts on water-quality conditions; therefore this topic was dismissed from further analysis.

Impacts on Cultural Resources

Methodology

In this impact analysis, cultural resources include cultural landscapes, historic buildings and structures, museum collections and archives, and archeological sites and resources. Effects on cultural resources are described in terms consistent with the regulations of the Council on Environmental Quality for implementing the National Environmental Policy Act (NEPA). The NPS intends to comply with requirements of NEPA and Section 106 of the National Historic Preservation Act. Council on Environmental Quality (CEQ) regulations require that the impacts of the alternatives and their component actions be disclosed. Consistent with those regulations, the analysis of individual actions includes identification and characterization of impacts. Characterization includes a discussion of the type of impact (positive or negative), duration (short-term, long-term, or permanent), and intensity of impact (see Table 4-1).

An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property’s location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property’s eligibility for the National Register. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative. (36 CFR Part 800.5, *Assessment of Adverse Effects*). A determination of no adverse effect means that there is an effect, but it would not in any way diminish the character-defining features of the cultural resource that qualify it for inclusion in the National Register. CEQ regulations and the NPS Conservation Planning, Environmental Impact Analysis and Decision Making (Director’s Order 12) also call for a discussion of the appropriateness of mitigation, as well as an analysis of the effectiveness of the mitigation in reducing the intensity of a potential impact, e.g., from major to moderate to minor. Any resultant reduction in intensity of impact due to mitigation, however, is an estimate of the effectiveness of mitigation under NEPA only. It does not suggest that the level of effect as defined by Section 106 is similarly reduced. Although adverse effects under Section 106 may be mitigated, the effect remains adverse.

This analysis is not intended to fully meet the requirements of Section 106, but is based on currently available information. A formal finding of effect

for the undertaking (implementation of the alternative) on cultural resources, based upon the criteria of effect found in the Advisory Council’s regulations, will be made when the documentation requirements for a finding are available, prior to taking action to implement the alternative. (See Part Five: Coordination and Consultation for more information about how Section 106 will be addressed.)

The planning team based this impact analysis and conclusions largely on the review of existing research and studies, information provided by experts in the NPS and other agencies and organizations, and the professional judgment of the Roosevelt-Vanderbilt staff. For purposes of analyzing potential impacts on cultural resources, the thresholds of change for the intensity of an impact are defined in the following table.

Table 4-1: Impact Intensities for Cultural Resources

	CULTURAL RESOURCES			
	CULTURAL LANDSCAPES	HISTORIC BUILDINGS AND STRUCTURES	COLLECTIONS AND ARCHIVES	ARCHEOLOGICAL RESOURCES
Negligible	Impact(s) is at the lowest levels of detection, barely perceptible, and not measurable			
Minor	Impact would affect a pattern or a feature and would be perceptible and measurable, but slight and localized. The action would not diminish the overall integrity of the landscape.	Impact would affect a feature and would be perceptible and measurable, but slight and localized. The action would not diminish the overall integrity of the structure or building.	Impact would affect the condition and long-term preservation of a few items in the collection. The action would not degrade the usefulness of the collection for future research and interpretation.	Impact would result in little, if any, loss of important information potential.
Moderate	Impact would affect one or more character-defining pattern(s) or feature(s) and would be perceptible and measurable. The action would not diminish the integrity of the landscape to the extent that its National Register eligibility is jeopardized.	Impact would affect one or more character-defining feature(s) and would be perceptible and measurable. The action would not diminish the integrity of the building or structure to the extent that its National Register eligibility is jeopardized.	Impact would affect the condition and long-term preservation of many items in the museum collection. The action would diminish the usefulness of the collection for future research and interpretation.	Impact does not result in substantial loss of important information potential.
Major	Impact would affect character-defining patterns or features, and be substantial, discernible, and permanent. The action could diminish the overall integrity of the resource to the extent that it is no longer eligible to be listed on the National Register.	Impact would affect character-defining features, and would be substantial, discernible, and permanent. The action could diminish the integrity of the resource to the extent that it is no longer eligible to be listed on the National Register.	Impact would affect the condition and long-term preservation of the collection as a whole. The action would destroy the usefulness of the collection for future research and interpretation.	Impact would be substantial, and result in the loss of most or all of the site and its potential to yield information.

Impacts of Elements Common to All Alternatives on Cultural Resources

IMPACTS RELATED TO RESOURCE MANAGEMENT ACTIONS

In all alternatives, park managers would undertake the following resource management actions: develop an implementation plan; continue to present the residences as furnished interiors or exhibits and continue basic repairs; preserve collections, acquire objects, and restore original quality of the interiors; enhance the viability of important natural communities; work with partners to protect the historic setting and distant views; and advance scholarship. Some of these activities would have an impact on cultural resources. Those impacts are described below.

Impacts on Cultural Landscapes

- In all alternatives, park managers would develop an implementation strategy that identifies available funding sources, sets specific funding targets, and makes repair, maintenance, and preservation projects a priority for plan implementation. This would help managers develop a long-term business plan for the parks that would aid in securing resources. Depending upon the success of park managers in securing resources, this proposal could have a **negligible to moderate long-term positive** impact on cultural landscapes.
- In all alternatives, park managers would work in partnership to protect the parks' historic setting, re-establish the rural character of the Route 9 and Route 9G corridors, work cooperatively to ensure compliance with the 100-foot deed restriction along Route 9, and preserve the sweeping views of the Hudson River. Depending on the extent and success of these efforts, the incremental effect contributed by these activities would be positive and could range from **noticeable to appreciable** in proportion to the overall cumulative impact on cultural landscapes.
- In all alternatives, park managers would advance research and scholarship to support management objectives and make more of this information available to the general public. This could have an **overall positive** impact on the stewardship of cultural landscapes.

Impacts on Historic Buildings and Structures

- Developing an implementation strategy could have a **negligible to moderate long-term positive** impact on the historic buildings and structures, depending upon the success of park managers in securing resources.
- In all alternatives, park managers would continue to present the residences and cottages as fully furnished interiors that reflect a defined treatment period (see Part Two for explanation of period of treatment) or via exhibits. This proposal would have a **negligible to minor long-term positive** impact on the primary historic buildings. The residences and their outbuildings largely reflect their treatment periods, with the exception of alterations made for public access and some post-1960s alterations to Stone Cottage. Potential changes to the buildings' exteriors would be minimal, such as updating paint color, with the possible exception of

updating the metal external staircase at the FDR Home, and removal of post-1960 alterations (laundry, porch modifications, and possibly brick garden wall) at Stone Cottage.

- Advancing research and scholarship could have an **overall positive** impact on the stewardship of historic buildings and structures.

Impacts on Collections and Archives

- Developing an implementation strategy could have a **negligible to moderate long-term positive** impact on collections and archives, depending upon the success of park managers in securing resources.
- In all alternatives, park managers would strive to preserve the collections in good condition, continue to acquire collections, and continue conservation activities to maintain and restore the original appearance and quality of the interiors. These activities would have a **major long-term positive** impact on the park's collections, as they would support its continued conservation, enhance the scope and the comprehensiveness of the collections, and return and protect features original to the national historic sites.
- Advancing research and scholarship could have an **overall positive** impact on the stewardship of collections and archives.

Impacts on Archeological Resources

- In all alternatives, park managers would continue basic repairs and replacements to utility infrastructure. Although most of these areas have been previously disturbed, these actions would have the potential to cause **negligible to minor negative** impacts. Archeological reviews, surveying, and monitoring would be employed to mitigate these impacts.

IMPACTS RELATED TO PUBLIC USE AND ENJOYMENT ACTIONS

In all alternatives, park managers would undertake the following public-use related actions: confirm the period of interpretation; update orientation materials; improve the arrival experience; offer a fuller presentation of the homes; manage the size of tour groups; and provide information about trail accessibility. Some of these activities would have an impact on cultural resources. Those impacts are described below.

Impacts on Cultural Landscapes

- Improving the visitor arrival experience could involve removing or screening from view equipment, machinery, and staff vehicles at the parks' entrances. This would have a **minor long-term positive** impact on the cultural landscape.

Impacts on Historic Buildings and Structures

- In all alternatives, park managers would offer a fuller, more complete presentation of the main residences, which would have a **minor long-term negative** impact on the historic buildings due to increased wear

and tear on more areas of the FDR Home and Vanderbilt Mansion.

- In all alternatives, park managers would re-evaluate and limit, if warranted, the size of tour groups in the historic structures at one time. This proposal could reduce wear and tear on the historic structures, which would result in a **minor long-term positive** impact.

Impacts on Collections and Archives

- Offering a fuller, more complete presentation of the main residences would have a **minor long-term negative** impact on museum collections by putting more museum objects on display in those structures, thereby increasing the general exposure of more items to environmental stresses and risk of handling and theft.
- Managing tour group size would have a **moderate long-term positive** impact on displayed museum objects by increasing surveillance during tours and increasing the ability of interpretive rangers/tour leaders to protect all objects on display from handling and theft.

Impacts on Archeological Resources

- There would be no impacts on archeological resources related to the public use and enjoyment actions.

IMPACTS RELATED TO PARK OPERATIONS ACTIONS

In all alternatives, park managers would undertake the following park operations actions: develop a new maintenance facility; increase energy efficiency; promote car-free access; continue to provide housing, but establish tenant guidelines; and continue existing partnership efforts. Some of these activities would have an impact on cultural resources. Those impacts are described below.

Impacts on Cultural Landscapes

- In all alternatives, park managers would enhance the operational efficiency of the parks by providing new maintenance facilities. This would have a **minor long-term positive** impact on the cultural landscapes associated with the historic structures that are now used for maintenance functions by removing heavy equipment, parked vehicles, dumpsters, and other non-historic elements from the historic scene. The site for the new facility will be chosen based on its minimal effect on cultural resources. Depending upon which location is ultimately selected, negative impacts on cultural landscapes could range from **negligible to moderate**.
- In all alternatives, park managers would provide a sustainable alternative to private vehicle access to the parks. This could have a **moderate long-term positive** impact on cultural landscapes. The sensitivity of the cultural landscapes at the parks limits the amount of parking available. Although current parking facilities occupy a relatively large area of the parks (with the exception of Top Cottage, where visitor parking is prohibited), parking levels exceed capacity an estimated 15 times per year at the Home and Val-Kill, and an estimated 50 times per year at Vanderbilt.

At these times, visitors are directed to park on unpaved lawn areas, which introduces modern visual and aural intrusions into the historic scene. The alternate transit system, in concert with overflow parking provided at the site of the proposed Hudson Valley Welcome Center or other appropriate location, would obviate the need to increase parking areas to accommodate overflow.

- In all alternatives, park managers would provide housing for seasonal and temporary staff members and visiting scholars and researchers. Developing guidelines for the use of the structures that limit storage of outdoor personal effects and private vehicle parking would have a **minor long-term positive** impact on the cultural landscape, as it would reduce visual clutter around the structures.

Impacts on Historic Buildings and Structures

- Providing a new maintenance facility would have a **major long-term positive** impact on historic structures by removing uses from the Vanderbilt Coach House and Bellefield outbuildings that are undermining their long-term preservation.
- In all alternatives, park managers would increase energy efficiency and work to decrease the carbon footprint of the parks. This could have a **minor negative long-term** impact on historic buildings and structures if it involves making changes to historic fabric to improve energy efficiency or to use alternative (or greener) energy sources. Alterations that may be made to the structures could involve upgrading systems to improve efficiency, installing insulation, and/or changing incandescent light bulbs to fluorescent ones. All work would follow the *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Rehabilitating Historic Buildings*, NPS management policies, and Director's Order 28, *Cultural Resource Management*.
- In all alternatives, park managers would continue to provide housing for staff members and visiting researchers. This would have a **negligible** impact, as it would result in little noticeable change to the historic structures. These structures were originally designed for residential use. Repairs are required to one unit (FDR Duplex) to make it habitable, which would reduce the maintenance backlog on the unit. Overall, occupancy is preferable to leaving the structures unoccupied.

Impacts on Collections and Archives

- There would be no impacts on the parks' collections and archives related to park operations actions.

Impacts on Archeological Resources

- In all alternatives, park managers would develop a new maintenance facility. The site for the new facility will be chosen based on its minimal effect on cultural resources. Existing archeological studies will serve as guiding documents indicating known and potential archeologically

sensitive areas. Depending upon the selected site, new research may be needed to evaluate the known and potential archeological resources. Archeological sites would need to be avoided and archeological resource data collected prior to construction. During construction, archeological monitoring will ensure that proper procedures are followed for minimal disturbance, such as appropriate construction staging areas. If any unknown significant resources are uncovered during ground-disturbing activity, procedures to implement Section 106 of the NHPA would be instituted. Depending upon which location is ultimately selected, negative impacts on archeological resources could range from **negligible to moderate**, with **minor short-term negative** impacts on archeological resources during construction.

Impacts of the No-Action Alternative on Cultural Resources

IMPACTS RELATED TO RESOURCE MANAGEMENT ACTIONS

In the No-Action Alternative, park managers would manage cultural landscapes as at present and rely on partners to protect the Red House.

Impacts on Cultural Landscapes

- The No-Action Alternative would allow the continued degradation of historic views and the forest plantations and maintain the designed landscapes and gardens, farm fields, historic roads and trails, and natural woodlands as at present. This course of action would have a **major long-term negative** impact on the cultural landscape, as it would allow for the continued degradation of and eventual loss of fundamental resources, notably the river views and forest plantations; would retain garden features, road and trail surfaces, and other elements that do not reflect historic conditions and that detract from the historic character of core areas; and would allow continued field encroachment that would diminish the size of the open areas, thereby moving further from historic conditions.

Impacts on Historic Buildings and Structures

- The No-Action Alternative would continue management of the designed landscapes as at present. This would have a **moderate to major long-term negative** impact on historic buildings and structures within the designed landscapes by allowing garden buildings and structures to continue to deteriorate.

Impacts on Collections and Archives

- There would be no impacts on the parks' collections and archives related to the resource management actions.

Impacts on Archeological Resources

- There would be no impacts on the parks' archeological resources related to the resource management actions.

IMPACTS RELATED TO PUBLIC USE AND ENJOYMENT ACTIONS

In the No-Action Alternative, park managers would: update orientation materials; continue to center the visitor experience on the historic residences, but open the Vanderbilt Coach House to an occasional tour; continue educational programs as at present; and continue trail use/river connections as at present. Some of these activities would have an impact on cultural resources. Those impacts are described below.

Impacts on Cultural Landscapes

- Updating orientation materials would have a **negligible** impact on cultural landscapes.
- Continuing trail use at current levels would have a **minor long-term negative** impact on cultural landscapes, because the prohibited all-terrain vehicle (ATV) use would continue at present levels and could damage trails and allow new ATV routes to develop.

Impacts on Historic Buildings and Structures

- Continuing to center the visitor experience on the historic residences, but opening the Vanderbilt Coach House to an occasional tour would have a **negligible** impact on the historic structures.

Impacts on Collections and Archives

- Continuing to center the visitor experience on the historic residences, but opening the Vanderbilt Coach House to an occasional tour would have a **negligible** impact on the collections and archives.

Impacts on Archeological Resources

- Continuing trail use at current levels could have a **negligible to moderate long-term negative** impact on archeological resources, because the prohibited ATV use would continue and could allow new off-trail ATV routes to develop.

IMPACTS RELATED TO PARK OPERATIONS ACTIONS

In the No-Action Alternative, park managers would: upgrade the Bellefield property; fill staff positions to implement the target organization with existing funding sources; and maintain partnerships at existing levels. Some of these activities would have an impact on cultural resources. Those impacts are described below.

Impacts on Cultural Landscapes

- Upgrading the Bellefield property to facilitate its use as park headquarters would: remove the visual clutter from the vicinity of the Bellefield out-buildings; improve and/or expand and screen the staff parking area (thereby keeping cars from parking haphazardly along the front entry drive); and complete a cultural landscape treatment and landscape management plan for the Bellefield grounds. Overall, this would have a **moderate long-term positive** impact on the cultural landscape.

- Implementing the No-Action Alternative would involve filling vacancies and other positions as outlined in the existing organization (based on the Position Management Review Board recommendations of 2006) with existing funding sources. This would stem the decline in the condition of cultural resources that has taken place over many years of diminished capacity, and would have a **minor long-term positive** impact on cultural landscapes by increasing the park's capacity for resource preservation activities. Should the positions not be filled and staffing levels continue to decrease in line with the decline in federal appropriations, however, it would become increasingly difficult to maintain the cultural landscapes to NPS standards, which could lead to an eventual loss of integrity.

Impacts on Historic Buildings and Structures

- Upgrading the Bellefield property could have a **minor to moderate long-term negative** impact on the Bellefield buildings, because it could involve making additional changes to historic interiors for more efficient use of space. Alterations that may be made to the structures could involve moving walls and doors, adding new partitions, making accessibility accommodations, and/or adding a second means of egress. Any potential impacts on historic fabric would be identified, and appropriate planning would mitigate and minimize loss of historic fabric. All work would follow the *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Rehabilitating Historic Buildings*, NPS management policies, and Director's Order 28, *Cultural Resource Management*. Treatment plans developed in consultation with the NYS SHPO would ensure the preservation of remaining features and the rehabilitation of others. Conversely, improvements made to the Bellefield buildings would reduce the deferred maintenance backlog on the structures, which could be a **moderate to major long-term positive** impact.
- Filling vacancies and other positions would have a **minor long-term positive** impact on historic buildings and structures by increasing the park's capacity for resource preservation activities. Again, should the positions not be filled and staffing levels continue to decrease in line with the decline in federal appropriations, it would become increasingly difficult to maintain the historic structures to NPS standards. This could lead to an eventual loss of integrity.

Impacts on Collections and Archives

- Filling vacancies and other positions would have a **minor long-term positive** impact on collections by increasing the park's capacity for conservation activities. Again, should the positions not be filled and staffing levels continue to decrease in line with the decline in federal appropriations, it would become increasingly difficult to maintain the collections to NPS standards.

Impacts on Archeological Resources

- Upgrading the Bellefield property could involve expanding the existing parking area and providing new pathways for public access. Known archeological sites would need to be avoided and archeological resource data collected prior to construction, with monitoring undertaken during construction. These activities could have negative impacts on archeological resources that range from **negligible to moderate**, with **minor short-term negative** impacts during construction.

Impacts of Action Alternative One on Cultural Resources

IMPACTS RELATED TO RESOURCE MANAGEMENT ACTIONS

In Action Alternative One, park managers would restore cultural landscapes in core locations and rely on partners to protect the Red House.

Impacts on Cultural Landscapes

- Action Alternative One would restore historic views, designed landscapes, historic roads and trails, and farm fields to their fullest extent, and manage the forest plantations and natural woodlands to perpetuate their historic character. These activities would have a **major long-term positive** impact on the cultural landscape by bringing the landscape closer to historic conditions.

Impacts on Historic Buildings and Structures

- Action Alternative One would have a **moderate to major long-term positive** impact on historic structures and buildings within the designed landscapes by repairing deteriorating garden structures and allowing for the reconstruction of missing greenhouses and other garden structures.

Impacts on Collections and Archives

- There would be no impacts on collections and archives related to resource management actions.

Impacts on Archeological Resources

- Action Alternative One would restore historic views, designed landscapes, historic roads and trails, and farm fields to their fullest extent, and manage the forest plantations and natural woodlands to perpetuate their historic character. Action Alternative One would also evaluate extending Roosevelt Farm Lane from Val-Kill to Top Cottage. These activities could have a **negligible to moderate long-term negative** impact and a **minor short-term negative** impact on archeological resources due to the potential for disturbance by planting, removal of vegetation, pathway resurfacing, grading, and by equipment use during implementation. Activities would be preceded by survey, careful planning, and consultation to avoid, or if necessary, mitigate impacts.

IMPACTS RELATED TO PUBLIC USE AND ENJOYMENT ACTIONS

In Action Alternative One, park managers would: update orientation materials to present the Roosevelt sites as components of a single entity and the Wallace Center as the starting point for Val-Kill tours; improve public access and interpretation of outbuildings, including a restored Vanderbilt Coach House; enhance children's educational programming, with select outbuildings used for teaching space; and encourage use of the trails in coordination with expanded interpretation of the landscape.

Impacts on Cultural Landscapes

- Updating orientation materials to better communicate the historic importance of the estates and emphasize the historic connections between the Roosevelt sites would have little impact on cultural landscapes. However, Action Alternative One directs all Roosevelt site visitors to the Wallace Center as the starting point for tours, which would allow for the future consideration of reducing the size or removing of the parking area at Val-Kill. This would have a **minor long-term positive** impact on the cultural landscape, as the area would be restored to either natural conditions or a designed landscape.
- Depicting the history and use of the estates more completely could have a **moderate long-term positive** impact on cultural landscapes by providing fuller portrayal of important themes, which could result in increased support for stewardship. Conversely, this could also have **minor long-term negative** impacts on landscape areas that receive greater wear and tear.
- Enhancing children's educational programming could have a **minor to moderate long-term positive** impact on cultural landscapes by appealing to a new generation of prospective stewards, potentially increasing support for stewardship.
- Encouraging use of the trails in association with interpretive programming would increase the wear and tear on historic roads and trails. Conversely, greater public exposure to the cultural landscapes through trail use could appeal to a new audience of prospective stewards. In addition, increased public use could reduce the (prohibited) use of ATVs on parklands, as more people using the trails could report unauthorized uses to park staff and make the forested area less appealing for unauthorized uses. Given these considerations, the overall impact on the cultural landscape is expected to be **minor, long-term, and positive**.

Impacts on Historic Buildings and Structures

- Improving public access to important estate outbuildings could have a **moderate long-term positive** impact on cultural resources by providing fuller portrayal of important themes, which could result in increased support for stewardship. The outbuildings selected for increased public access, such as the Vanderbilt Coach House, would also experience a **moderate to major long-term positive** impact due to their more frequent monitoring, and to the repairs that would be required to allow access,

which would decrease the deferred maintenance on these structures. Conversely, this proposal could also have **minor long-term negative** impacts on estate outbuildings that would receive greater wear and tear.

- Enhancing children's educational programming could have a **minor to moderate long-term positive** impact by appealing to a new generation of prospective stewards, potentially increasing support for stewardship.
- Modifications would be made to outbuildings, such as the Val-Kill Stable-Garage and the FDR Garage, for use as teaching space.

Alterations that may be made to the structures could involve adding new partitions or making accessibility accommodations. Such modifications could have a **minor to moderate long-term negative** impact on the outbuildings. Any potential impacts on historic fabric would be identified, and appropriate planning would mitigate and minimize loss of historic fabric. All work would follow the *Secretary of the Interior's Standards* and *NPS Management Policies*. Treatment plans developed in consultation with the NYS SHPO would ensure the preservation of remaining features and the rehabilitation of others. Conversely, improvements made to the outbuildings would reduce the deferred maintenance backlog on the structures, which could have a **moderate to major long-term positive** impact.

Impacts on Collections and Archives

- Enhancing children's educational programming could have a **minor to moderate long-term positive** impact by appealing to a new generation of prospective stewards, potentially increasing support for stewardship.
- Restoring and re-furnishing the Vanderbilt Coach House could have a **minor long-term negative** impact on museum objects that are placed on display by increasing their general exposure to environmental stresses and to handling and theft.

Impacts on Archeological Resources

- Removal of the Val-Kill parking lot could have **minor to moderate long-term negative** impacts on any archeological resources that had escaped prior destruction from construction of the lot.
- Encouraging use of the trails in association with interpretive programming would likely have a **negligible** impact on archeological resources, as the trail use would take place on historic roads and trails and existing facilities.

IMPACTS RELATED TO PARK OPERATIONS ACTIONS

In Action Alternative One, park managers would upgrade Bellefield and seek increases in staff and in volunteer participation through enhanced partnerships.

Impacts on Cultural Landscapes

- Upgrading the Bellefield property to facilitate its use as park headquarters would have the same **moderate long-term positive** impacts as in the

No-Action Alternative.

- Implementing Action Alternative One would require filling more staff positions than those outlined in the No-Action Alternative. It would also involve augmenting the staff with volunteer docents and increasing partner participation in programs and maintenance. This would have a **moderate long-term positive** impact on cultural landscapes, as it would allow more labor to be devoted to their care and would help increase the parks' capacity to maintain and repair resources.

Impacts on Historic Buildings and Structures

- Upgrading the Bellefield property to improve its use as park headquarters would have the same **minor to moderate long-term negative** and **moderate to major long-term positive** impacts as the No-Action Alternative.
- Filling positions, augmenting staff with volunteer docents, and increasing partner participation in programs and maintenance would have a **moderate long-term positive** impact on historic buildings and structures, as it would help increase the parks' capacity to maintain and repair resources.

Impacts on Collections and Archives

- Filling positions, augmenting staff with volunteer docents, and increasing partner participation in programs and maintenance would have a **moderate long-term positive** impact on collections, as it would help increase the parks' capacity to maintain and repair resources.

Impacts on Archeological Resources

- Upgrading the Bellefield property to improve its use as park headquarters would have the same **negligible to minor long-term** and **minor short-term negative** impacts as the No-Action Alternative.

Impacts of Action Alternative Two on Cultural Resources

IMPACTS RELATED TO RESOURCE MANAGEMENT ACTIONS

In Action Alternative Two, park managers would: rehabilitate cultural landscapes, making allowances for contemporary practices; and protect the Red House through NPS ownership and partner efforts.

Impacts on Cultural Landscapes

- Action Alternative Two would rehabilitate historic views, designed landscapes, historic roads and trails, historic fields (and return some to agricultural uses); and manage forest plantations and natural woodlands with a range of treatments, from perpetuating historic character to using and demonstrating modern forestry practices and enhancing habitat values. The new farming and forestry uses would be compatible with the historic character of the landscape. These activities would have an overall **major long-term positive** impact on the cultural landscape by bringing it more closely in line with historic conditions; by doing so in ways that make it easier and more cost-effective for the NPS to maintain over the

long term; and by perpetuating historic land uses, as opposed to focusing solely on historic appearance.

- Protecting the Red House through NPS ownership and partnership efforts, such as through a lease arrangement, would offer greater control over its redevelopment than relying solely on partners with no NPS ownership interest, as in the other alternatives. Future uses would be controlled by formal agreements with the NPS and would need to comply with NPS *Management Policies* and the *Secretary of the Interior's Standards for Treatment of Historic Properties*. This would have a **negligible to minor positive** impact on the setting of the FDR Home by allowing for greater mitigation efforts and prevention of undesirable actions.

Impacts on Historic Buildings and Structures

- Action Alternative Two would rehabilitate and repair deteriorating garden buildings and structures, which would have a **moderate to major long-term positive** impact.
- Protecting the Red House through NPS ownership and partnership efforts would have a **negligible to minor positive** impact on the building by allowing for greater mitigation efforts and prevention of undesirable actions.

Impacts on Collections and Archives

- There would be no impacts on collections and archives related to the resource management actions.

Impacts on Archeological Resources

- Action Alternative Two would rehabilitate historic views, designed landscapes, historic roads and trails, historic fields (and return some to agricultural uses); and manage forest plantations and natural woodlands with a range of treatments, from perpetuating historic character to using and demonstrating modern forestry practices and enhancing habitat values. This proposal has the potential for a **negligible to moderate negative** impact and a **minor short-term negative** impact on archeological resources due to the potential for disturbance by planting, vegetation removal, agricultural equipment, and equipment use during implementation. Activities would be preceded by survey, careful planning, and consultation to avoid, or if necessary, to mitigate impacts.

IMPACTS OF VISITOR USE AND ENJOYMENT ACTIONS

In Action Alternative Two, park managers would: update orientation materials; offer a wide array of programs to reach a range of audiences; adaptively re-use the Vanderbilt Coach House for a compatible public purpose; expand educational programming, including the establishment of a learning center; actively promote compatible recreational use of the trails; and enhance river connections.

Impacts on Cultural Landscapes

- Updating orientation materials would have a **negligible** impact on cultural landscapes.

- Introducing more diverse programs could have a **moderate long-term positive** impact by communicating park themes to diverse audiences, thereby potentially broadening the base of support for cultural resource stewardship. Conversely, this proposal could also have the potential for **minor long-term negative** impacts on cultural landscapes that receive greater public exposure due to increased wear and tear.
- Enhancing and expanding educational programming to reach a broader audience could have a **minor to moderate long-term positive** impact by appealing to a wider range of prospective stewards than in other alternatives, thereby potentially broadening the base of support for increased cultural landscape stewardship.
- Actively promoting recreational use of the trails would increase the wear and tear on the historic roads and trails and could lead to increased trampling of vegetation and increased spread of invasive plant species. Allowing bicycle riding on designated trails could result in new, informal, unauthorized trails to be opened in the forested areas of the parks. Conversely, greater public exposure to the cultural landscapes through recreational use could appeal to new audiences of prospective stewards. In addition, greater authorized use of the trails would reduce the (prohibited) use of ATVs on parklands, as more people could report unauthorized uses to park staff, making these areas less appealing for unauthorized use. Given these considerations, the overall impact on the cultural landscape is expected to be **minor, long-term, and positive**.
- Developing new segments of the trail system to improve visitor access and support interpretation would have a **minor long-term negative** impact on cultural landscapes by introducing elements that did not exist during the periods of significance. Extreme care would be taken in siting new trails to minimize their visual impact on the historic scene.
- Increasing connections to the Hudson River and water-borne park access would have **negligible** impacts on the cultural landscapes of Bard Rock and Roosevelt Cove, as few new physical elements would be introduced. There is the potential for a **minor long-term negative** impact at Bard Rock and Roosevelt Cove due to wear and tear associated with increased visitor use.

Impacts on Historic Buildings and Structures

- Introducing more diverse programs could have a **moderate long-term positive** impact by communicating park themes to diverse audiences, thereby potentially broadening the base of support for cultural resource stewardship. Conversely, this proposal could also have the potential for **minor long-term negative** impacts on historic buildings and structures that receive greater public exposure due to increased wear and tear.
- Adaptively re-using certain estate outbuildings, such as the Vanderbilt Coach House, for contemporary purposes via lease or other arrangement could have both positive and negative impacts. The leasing of some historic buildings would prevent their continuing deterioration and improve their condition. Depending on the proposed use, some modifications to

historic interiors could be required, including installation of heating, cooling, and fire suppression systems; modern plumbing; alterations to walls and locations of doors; addition of accommodations for accessibility; and/or additions of second means of egress. In cases in which the buildings contribute to the significance of the park, new uses would be limited to those requiring changes that pose no greater than **moderate long-term negative** impacts to the buildings. Any potential impacts would be identified, and appropriate planning would mitigate and minimize loss of historic fabric. All work would follow the *Secretary of the Interior's Standards* and NPS management policies. Treatment plans developed in consultation with the NYS SHPO would ensure that park staff make good decisions regarding the preservation of remaining features and the rehabilitation of others. The number of buildings that would be leased is not yet known. Conversely, improvements made to the outbuildings would reduce the deferred maintenance backlog on the structures, which could have a **moderate to major long-term positive** impact. In general, occupancy is preferred to leaving the buildings unoccupied.

- Modifications made to structures, such as the Bellefield outbuildings and the Val-Kill Stables-Garage, for use as teaching and flexible programming space would have the same impacts as those described above.
- Enhancing and expanding educational programming to reach a broader audience could have a **minor to moderate long-term positive** impact by potentially broadening the base of support for increased stewardship.

Impacts on Collections and Archives

- Introducing more diverse programs could have a **moderate long-term positive** impact by communicating park themes to diverse audiences, thereby potentially broadening the base of support for stewardship of collections.
- Enhancing and expanding educational programming could also have a **minor to moderate long-term positive** impact for similar reasons.

Impacts on Archeological Resources

- Adaptively re-using certain estate outbuildings, such as the Vanderbilt Coach House, for contemporary purposes may require the introduction of new parking areas, pathways, or other non-historic elements. Known archeological sites would need to be avoided and archeological resource data collected prior to construction. These activities could have **negligible to moderate long-term negative** impacts on archeological resources, with **minor short-term negative** impacts during construction.
- Developing new segments of the trail system to improve visitor access and support interpretation activities could have **negligible to moderate long-term negative** impacts on archeological resources, with **minor short-term negative** impacts during construction due to the potential for disturbance by tree removal and equipment use during implementation. Known archeological sites would need to be avoided and archeological resource data collected prior to construction.

IMPACTS OF PARK OPERATIONS ACTIONS

In Action Alternative Two, park managers would: upgrade Bellefield for park and partner use; augment sources of revenue; and seek increases in staff and extensive partnership support.

Impacts on Cultural Landscapes

- Upgrading the Bellefield property to facilitate its use as park headquarters and make it more available to the public and partners for fee-generating purposes would generally have the same **moderate long-term positive** impacts as in the No-Action Alternative. Increased use by partners and the public could have the potential for **minor long-term negative** impacts due to greater exposure and increased wear and tear.
- As part of the upgrades to Bellefield, the “wild garden” portion of the Farrand Garden would be rehabilitated, which would have a **minor long-term positive** impact on the cultural landscape by bringing the appearance of the garden more in line with historic conditions.
- Implementing Action Alternative Two would require filling more staff positions than those outlined in the No-Action Alternative, augmenting the staff with volunteer docents and extensive partner support, as well as seeking new sources of revenue to help implement the plan and support park operations and maintenance. This would have a **major long-term positive** impact on cultural landscapes, as it would allow more labor and funding from new sources to be put toward their preservation and substantially increase the capacity to care for park resources.

Impacts on Historic Buildings and Structures

- Upgrading the Bellefield property to facilitate its use as park headquarters and make it more available for partner use would have the same **minor to moderate long-term negative** and **moderate to major long-term positive** impacts as described in the No-Action Alternative.
- Filling positions, augmenting staff with volunteer docents and extensive partner support, and seeking new sources of revenue would have a **major long-term positive** impact on historic buildings and structures, as it would allow more labor and funding from new sources to be put toward their preservation and substantially increase the capacity to care for park resources.

Impacts on Collections and Archives

- Seeking increasing staff, volunteer and partner support, and new sources of revenue would have a **major long-term positive** impact as it would substantially increase the capacity to research and care for park resources.

Impacts on Archeological Resources

- Upgrading the Bellefield property to improve its use as park headquarters would have the same **negligible to minor long-term** and **minor short-term negative** impacts as the No-Action Alternative.

- Rehabilitating the “wild garden” portion of the Farrand Garden could have negative impacts on archeological resources that range from **negligible** to minor, with **minor short-term negative** impacts during construction. Known archeological sites would need to be avoided and archeological resource data collected prior to construction.

Conclusion

The impacts on cultural resources range from minor to major, are largely long-term, and include both positive and negative impacts.

The No-Action Alternative, including the elements common to all alternatives, would have minor to major long-term positive and minor to major long-term negative impacts on the cultural resources. The major long-term negative impacts on the cultural resources would be due to the eventual loss of the Hudson River views and the forest plantations. However, these impacts are not permanent and could be reversed.

Both Action Alternatives One and Two, including the elements common to all alternatives, would have minor to major long-term positive and minor to moderate long-term and short-term negative impacts on the cultural resources. The moderate negative impacts would be largely associated with historic structures and archeological resources.

Overall, the No-Action Alternative would have the most negative impacts on cultural resources. Action Alternatives One and Two would have similar levels of impact on cultural resources that are generally positive, with Action Alternative One providing a slightly greater benefit.

Impairment of Resources

Given that there are no identified permanent major negative impacts on a resource or value whose conservation (1) would be necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park, (2) is key to the natural or cultural integrity of the park or to opportunities to enjoy it, or (3) has been identified as a goal in the park’s general management plan or other relevant NPS planning documents, implementing the alternatives would result in no impairment of cultural resources.

Impacts on Natural Resources

Methodology

In this impact analysis, natural resources consist of wildlife, vegetation, wetlands, soils, and topography. To conduct the analysis, research reports were consulted, and information on known resources was compiled. Where possible, locations of sensitive resources were compared with the locations of proposed modifications and development. The analysis is qualitative in nature. Predictions about short-term and long-term impacts were based on previous studies and in consultation with subject-matter experts. Please note that the actions and topics are addressed only where there is a potential impact. For purposes of analyzing potential impacts to natural resources, the thresholds of change for the intensity of an impact are defined in the following table.

Table 4-2: Impact Intensities for Natural Resources

NATURAL RESOURCES	
Negligible	Impact would not be of any measurable or perceptible consequence.
Minor	Impact would be slightly detectable and localized; it would not affect the overall structure of any natural community.
Moderate	Impact would be clearly detectable and readily apparent; it could appreciably affect individual species, communities, or natural processes.
Major	Impact would be noticeable and include a substantial or widespread influence on natural resources or processes and could result in a loss or alteration of communities.

Impacts of Elements Common to All Alternatives on Natural Resources

IMPACTS RELATED TO RESOURCE MANAGEMENT ACTIONS

In all alternatives, park managers would undertake the following resource management actions: develop an implementation plan; continue to present the residences as furnished interiors or exhibits and continue basic repairs; preserve collections, acquire objects, and restore original quality of the interiors; enhance the viability of important natural communities; rely on partners to protect the historic setting and distant views; and advance scholarship. Some of these activities would have an impact on natural resources. Those impacts are described below.

- Developing an implementation plan could have a **negligible to minor long-term positive** impact on wildlife and vegetation due to enhanced capacity for research and monitoring, depending upon the success of park managers in securing funding.
- Enhancing the viability of important ecologically sensitive natural communities on parklands would result in a **moderate long-term positive** impact on wildlife, vegetation, and wetlands. Pursuing new and more proactive management options, such as increasing the tidal flushing action at the tidal marsh and using prescribed fire to enhance the Red Cedar Rocky Summit forest type, would help maintain these communities. Additional documentation of these communities and other populations, such as invertebrates and bats, would improve our scientific understanding of the park.
- In all alternatives, park managers would work in partnership to protect the parks' historic setting, re-establish the rural character of the Route 9 and Route 9G corridors, work cooperatively to ensure compliance with the 100-foot deed restriction along Route 9, and preserve the sweeping views of the Hudson River. This course of action may have positive cumulative impacts that range from **imperceptible to appreciable**, depending on how much land is protected and what types of conservation measures are put in place. Scenic easements and other protection measures would

reduce the amount of development permitted along the river corridor, thereby reducing habitat fragmentation and disturbances to wildlife, vegetation, wetlands, soils, and topography.

IMPACTS RELATED TO PUBLIC USE AND EXPERIENCE ACTIONS

In all alternatives, park managers would undertake the following public-use related actions: confirm the period of interpretation; upgrade orientation materials; improve the arrival experience; offer a fuller presentation of the homes; manage the size of tour groups; and provide information about trail accessibility.

- These activities would have little impact on natural resources.

IMPACTS RELATED TO PARK OPERATIONS ACTIONS

In all alternatives, park managers would undertake the following park operations actions: develop a new maintenance facility; increase energy efficiency; promote car-free access; continue to provide housing, but establish tenant guidelines; and continue existing partnership activities. Some of these activities would have an impact on natural resources. Those impacts are described below.

- A specific location for the new maintenance facility will be selected when funding becomes available. The site will be chosen, in part, to have minimal effect on natural resources. Regardless of which site is selected, construction activity would be restricted to the smallest possible area. The new maintenance facility could have **minor short-term negative** impacts on soils, which would be disturbed during construction. Best practices, such as using existing alignments and minimizing grade changes, would mitigate negative impacts on topography, which could range from **negligible to minor**. Construction of the new facility could have negative impacts on vegetation and wildlife, but would be limited to a location that would pose no greater than **minor long-term** impacts. The site would be selected to avoid impacts on wetlands.

Impacts of the No-Action Alternative on Natural Resources

IMPACTS RELATED TO RESOURCE MANAGEMENT ACTIONS

In the No-Action Alternative park managers would manage cultural landscapes as at present and rely on partners to protect the Red House.

- Continuing to manage the views as at present would result in a positive but **negligible** impact on vegetation and wildlife. Shrubs and other woody species would continue to encroach on the field edge. Forest and edge-dependent grassland species would benefit from this increase in habitat. The potential for growth of exotic species, however, would increase without active management of the field edge.
- Allowing natural processes to advance without intervention among the forest plantations would result in a **minor long-term positive** impact on vegetation and wildlife, since the more diverse native forest would continue to succeed the forest plantation monoculture.

- Maintaining the existing annual mowing and/or haying regime would result in a positive long-term but **negligible** impact to wildlife and vegetation, since the practice allows for incremental forest encroachment and, potentially, for a gradual increase in forest-field edge habitat. The potential for growth of exotic species, however, would increase without active management of the field edge. As vegetation succeeds to forest, a modest amount of prime and significant agricultural land would be lost, which would result in a **minor long-term negative** impact. This change in the forest-field configuration, however, would not entirely alter the composition of the soils, and though the result would be long-term, it would not be permanent, as the forest could be cleared to support agriculture in the future.

IMPACTS RELATED TO PUBLIC USE AND ENJOYMENT ACTIONS

In the No-Action Alternative, park managers would: update orientation materials; continue to center the visitor experience on the historic residences, but open the Vanderbilt Coach House to an occasional tour; continue educational programs as at present; and continue trail use/river connections as at present. Some of these activities would have an impact on natural resources. Those impacts are described below.

- Continuing to present educational programs at current levels would have little impact on natural resources, other than continuing the missed opportunity for increased public appreciation and stewardship.
- Continuing trail use at current levels would have a **minor long-term negative** impact on vegetation, wildlife, and soils, because the prohibited ATV use could cause new unauthorized routes to be developed and disturb vegetation along the new routes, exacerbate soil erosion, increase the spread of invasive species, and disturb wildlife.

IMPACTS RELATED TO PARK OPERATIONS ACTIONS

In the No-Action Alternative, park managers would: upgrade the Bellefield property; fill positions to implement the target organization with existing funding sources; and maintain partnerships at existing levels. Some of these activities would have an impact on natural resources. Those impacts are described below.

- Upgrading the Bellefield property may involve introduction of new plantings or the construction of new walkways, but would have a **negligible** impact on wildlife, soils, and topography.
- Filling staff vacancies and other positions as outlined in the existing organization would have a **minor long-term positive** impact on wetlands, vegetation, and wildlife, as additional resources would become available to monitor wildlife and its habitat, control invasive species, and support other natural resource measures. Should the positions not be filled and staffing levels continue to decrease in line with federal appropriations, however, it would become increasingly difficult to conduct natural resource management activities. This could lead to diminished protection

for important habitats, decline in monitoring capacity, and increase in proliferation of invasive species.

Impacts of Action Alternative One on Natural Resources

IMPACTS RELATED TO RESOURCE MANAGEMENT ACTIONS

In Action Alternative One, park managers would restore cultural landscapes in core locations and rely on others to protect the Red House.

- Recreating the expansive Hudson River views to the extent possible at the Home of FDR, Vanderbilt Mansion, and Top Cottage would result in **minor long-term negative** impacts on vegetation and forest-dependent wildlife species due to the removal of mature trees and the possible disturbance of riparian habitat. By allowing more light to penetrate to the forest floor, thinning would likely result in increased establishment of invasive plants, and could cause a decline in ground-nesting birds, such as ovenbirds, as predators like raccoons and skunks prefer edge/fragmented habitats. Grassland-dependent species, however, would receive a **minor long-term benefit** from the increased acreage of open field.
- Actively managing the forest plantations and select areas of natural woodlands to perpetuate their historic character would result in a **minor long-term negative** impact on vegetation and wildlife due to the clearing of the understory, which would result in a loss of habitat for certain species. Mitigation measures would be taken to control soil loss and erosion, to protect vernal pools, seeps, and wetlands, and to control invasive species. Overall, this approach would offer few natural resource benefits.
- Reestablishing the original appearance of designed landscapes would introduce new plantings and therefore a new food source for opportunistic wildlife. However, the use of fencing would mitigate this impact. This proposal would have a **negligible** impact on wildlife.
- Clearing successional growth, maintaining haying and mowing practices, and possibly planting fields with cultivated crops would reduce native forest cover and change the current field-forest ratio. This would have a **minor long-term negative** impact on woodland species, but a **minor long-term positive** impact on grassland species. As soils now under successional growth are returned to meadow or cultivation of crops, there would be a **minor long-term positive** impact on prime agricultural lands.
- Restoring historic roads and trails in core locations would result in **negligible** impacts on vegetation, soils, and wildlife. Reestablishing the historic trails may require some removal of vegetation, which could result in slight increases in fragmentation of habitat, dispersal of wildlife, and soil disturbance.
- Extending Roosevelt Farm Lane from Val-Kill to Top Cottage could require construction of a new road alignment for some of its length, as the historic alignment has been altered by residential uses. This would require clearing of vegetation, grading, soil disturbance and compaction, and fragmentation of wildlife habitat, resulting in **minor short-**

term negative impacts on soils, vegetation, and wildlife, as construction would take place in previously undisturbed areas, and would have a **moderate long-term negative** impact on topography. In addition, the route would pass through wetlands, which would require bridging or other mitigation measures.

IMPACTS RELATED TO PUBLIC USE AND ENJOYMENT ACTIONS

In Action Alternative One, park managers would: update orientation materials to present the Roosevelt sites as components of a single entity and the Wallace Center as the starting point for Val-Kill tours; improve public access and interpretation of outbuildings, including a restored Vanderbilt Coach House; enhance children's educational programming, with select outbuildings used for teaching space; and encourage use of the trails in coordination with expanded interpretation of the landscape.

- Emphasizing the historic connections between the Roosevelt sites would have no impact on natural resources. However, Action Alternative One directs all Roosevelt site visitors to the Wallace Center as the starting point for tours, which would eventually allow for consideration of reducing the size (or removal) of the parking area at Val-Kill. This would allow the area to be restored to either natural conditions or a designed landscape, which, overall, would have a **negligible** impact on wildlife, vegetation, soils, and topography.
- Improving public access to important estate outbuildings and presenting a more complete depiction of the history and use of the estates could have long-term negative but **negligible** impacts on wildlife and vegetation, as there would be more visitors in the landscape to disturb vegetation and disperse wildlife. Clear signage and formalized pathways to outbuildings would mitigate negative impacts on vegetation.
- Enhancing children's educational programming could have a **moderate long-term positive** impact on wildlife, vegetation, and wetlands by appealing to a new generation of prospective stewards, potentially increasing support for stewardship.
- Encouraging greater use of the trails could lead to increased trampling of vegetation, spread of invasive species, and disruption of wildlife. Conversely, increase in use of the trails may lead to a reduction in the amount of unauthorized ATV use in the forested areas. The negative consequences of this illegal use include soil compaction, habitat fragmentation, wildlife disturbance, and loss of vegetation. However, increases in authorized trail use could lead to greater appreciation and understanding of the parks' natural resources, thereby increasing support for their stewardship. Overall, this proposal would result in a **minor long-term positive** impact on wildlife, vegetation, and soils.

IMPACTS RELATED TO PARK OPERATIONS

In Action Alternative One, park managers would upgrade Bellefield and seek increases in staff and in volunteer participation through enhanced partnerships.

- As in the No-Action Alternative, upgrading Bellefield would have **negligible** impacts on wildlife, soils, and topography.
- Implementing Action Alternative One would require filling more staff positions than those outlined in the No-Action Alternative. It would also involve augmenting the staff with volunteer docents and increasing partner participation in programs and maintenance. This would have a **moderate long-term positive** impact on wildlife, vegetation, and wetlands, as it would allow more labor to be devoted to monitoring wildlife and its habitat, controlling invasive species, and supporting other natural resource measures, and increasing the parks' capacity to conduct projects and management activities related to natural resources.

Impacts of Action Alternative Two on Natural Resources

IMPACTS RELATED TO RESOURCE MANAGEMENT ACTIONS

In Action Alternative Two, park managers would rehabilitate cultural landscapes, making allowances for contemporary practices, and seek an NPS ownership interest in the Red House.

- Although the acreage of area cleared and the number of trees selectively removed for viewshed restoration efforts may be smaller than in Action Alternative One, the impacts to natural resources would generally be the same.
- Actively managing the forest plantations and natural woodlands with a range of treatment would have both positive and negative impacts on natural resources. In areas managed to perpetuate historic character, there would be a **minor long-term negative** impact on vegetation and wildlife due to the clearing of the understory, removal of downed trees, and other actions that would result in a loss of habitat for certain species. Mitigation measures would be taken to control soil loss and erosion, to protect vernal pools, seeps, and wetlands, and to control invasive species. The adoption of modern forestry practices for some of the forest plantations would result in more diverse and healthier forest plantations, which would have a **minor long-term positive** impact on vegetation and wildlife. Harvesting trees would result in short-term minor negative impacts on vegetation and wildlife. The increase in human activity in the forest plantations, including more interpretation and forestry research, would have a negative but **negligible** impact on vegetation, soils, and wildlife.
- Rehabilitating designed landscapes and indicating missing features through physical means or media would introduce new plantings and therefore a new food source for opportunistic wildlife. However, plants that are less attractive to wildlife could be substituted for original materials. In addition, the use of fencing would mitigate this impact. This proposal would have a **negligible** impact on wildlife.
- Reclaiming key historic farm fields and leasing them for use by local farmers, with allowances for contemporary farming practices, would

have the same impacts as in Action Alternative One. The introduction of livestock in this alternative would result in a greater impact on wildlife and vegetation. However, mitigation measures such as controlling invasive weeds, minimizing inputs (e.g. fertilizer, pesticides), and controlling livestock would minimize these impacts.

- Rehabilitating historic roads and trails based on programmatic and interpretive needs would result in **negligible** impacts on vegetation, soils, and wildlife. This proposal may require some removal of vegetation, which could result in slight increases in fragmentation of habitat, dispersal of wildlife, and soil disturbance.

IMPACTS RELATED TO PUBLIC USE AND ENJOYMENT ACTIONS

In Action Alternative Two, park managers would: update orientation materials; offer a wide array of programs to reach a range of audiences; adaptively re-use the Vanderbilt Coach House for a compatible public purpose; expand educational programming, including the establishment of a learning center; actively promote compatible recreational use of the trails; and enhance river connections.

- Introducing more diverse and innovative programs and placing greater emphasis on the contemporary relevance of park themes could have a long-term negative but **negligible** impact on wildlife and vegetation, as there would be more visitors in the landscape to disturb vegetation and disperse wildlife. Clear signage and formalized pathways to outbuildings would mitigate negative impacts on vegetation.
- Enhancing and expanding educational programming to reach a broader audience could have a **minor to moderate long-term positive** impact on wildlife, vegetation, and wetlands by appealing to a wider range of prospective stewards than in other alternatives, thereby potentially broadening the base of support for increased stewardship.
- Actively promoting recreational use of the trails would increase visitor traffic and resultant trampling of vegetation and disturbance and dispersal of wildlife. Clear signage and formalized pathways would mitigate negative impacts on vegetation. Allowing bicycle use on designated trails could result in new, informal, unauthorized trails to be opened in the forested areas of the parks. Conversely, the promotion of the trails and resulting increased use may lead to a greater reduction in the amount of unauthorized motor vehicle use in the forested areas than in the other alternatives. The negative consequences of this unauthorized use include soil compaction, habitat fragmentation, wildlife disturbance, and loss of vegetation. Increased recreational use could lead to greater appreciation and understanding of the parks' natural resources, thereby increasing support for their stewardship. Overall, this proposal would result in a **minor long-term positive** impact on vegetation, wildlife, and soils.
- Expanding the trail system to support appropriate public access and interpretation would result in **minor long-term negative** impacts on

vegetation and wildlife. The construction of new trail segments would require removal of vegetation and result in increased fragmentation of habitat, dispersal of wildlife, and soil disturbance.

- Increasing connections to the Hudson River and water-borne park access could result in long-term negative but **negligible** impacts to vegetation and soils.

IMPACTS RELATED TO PARK OPERATIONS ACTIONS

In Action Alternative Two, park managers would: upgrade Bellefield for park and partner use; augment sources of revenue with partners; seek increases in staff; and seek extensive partnership support.

- Making the Bellefield property more available for partner use and promoting the Farrand Garden more fully as a public destination would involve new plantings, some in association with the “wild garden” portion of the Farrand Garden. This would introduce a new food source for opportunistic wildlife. The use of fencing would mitigate this impact. In addition, this proposal could involve development of new pathways. Overall, this proposal would have long-term negative but **negligible** impacts on wildlife, topography, and soils.
- Implementing Action Alternative Two would require filling more staff positions than those outlined in the No-Action Alternative. It would also involve augmenting the staff with volunteer docents and extensive partner support, as well as seeking new sources of revenue to help support park operations and maintenance. This would have a **moderate long-term positive** impact on wildlife, vegetation, and wetlands, as it would allow more labor and funding from new sources to be devoted to monitoring wildlife and its habitat, controlling invasive species, developing and running environmental education programs, and supporting other natural resource measures.

Conclusion

The impacts to natural resources range from minor to moderate long-term positive, to minor to moderate long-term negative, to minor short-term negative. The No-Action Alternative, including the elements common to all alternatives, would have minor to moderate long-term positive and minor long-term and short-term negative impacts on natural resources. Action Alternative One, including the elements common to all alternatives, would have minor to moderate long-term positive and minor to moderate long-term negative impacts and minor short-term negative impacts on natural resources. Action Alternative Two, including the elements common to all alternatives, would have minor to moderate long-term positive and minor long-term and short-term negative impacts on natural resources.

Overall, all alternatives would have positive and negative impacts on natural resources, with Action Alternative Two resulting in somewhat greater benefits to natural resources.

Impairment of Resources

Given that there are no permanent identified major negative impacts to a resource or value whose conservation (1) would be necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park, (2) is key to the natural or cultural integrity of the park or to opportunities to enjoy it, or (3) has been identified as a goal in the park's general management plan or other relevant NPS planning documents, implementing the alternatives would result in no impairment of natural resources.

Impacts on Visitor Use and Experience

Methodology

The National Park Service's *Management Policies* states that people's enjoyment of park resources and values is part of the fundamental purpose of all parks and that the NPS is committed to providing appropriate, high-quality opportunities for visitors to enjoy the parks. Thus, the Roosevelt-Vanderbilt National Historic Sites seek to offer opportunities for education, inspiration, and enjoyment.

Public input and observation of visitation patterns, combined with assessment of what is available to visitors under current management, were used to estimate the impacts of the actions in the various alternatives in this document. The potential for change in visitor use and experience proposed by the alternatives was evaluated by identifying projected increases or decreases in visitor uses, and determining whether or how these projected changes would affect the desired visitor experience and to what degree and for how long. For purposes of analyzing potential impacts, the thresholds of change for the intensity of an impact on visitor use and experience are defined in the following table.

Table 4-3: Impact Intensities for Visitor Use and Experience

VISITOR USE AND EXPERIENCE	
Negligible	Impact would be below or at the level of detection and short-term.
Minor	Impact would be detectable, although slight, likely short-term, and/or would affect a few visitors.
Moderate	Impact would be readily apparent (somewhat beneficial or somewhat negative), likely long-term, and/or would affect many visitors.
Major	Impact would be readily apparent (severely negative or exceptionally positive), have important long-term consequences, and/or would affect most visitors.

Impacts of Elements Common to All Alternatives on Visitor Use and Experience

IMPACTS RELATED TO RESOURCE MANAGEMENT ACTIONS

In all alternatives, park managers would undertake the following resource management actions: develop an implementation plan; continue to present the residences as furnished interiors or exhibits and continue basic repairs; preserve

collections, acquire objects, and restore original quality of the interiors; enhance the viability of important natural communities; work with partners to protect the historic setting and distant views; and advance scholarship. Some of these activities would have an impact on visitor use and experience. Those impacts are described below.

- In all alternatives, park managers would continue to present the residences and cottages as fully furnished interiors or via exhibits. Overall, this proposal would have a **negligible** impact on the visitor experience, as there would be little discernible change. In general, the exteriors of the residences and their outbuildings already reflect their periods of significance, with some alterations made for access and visitor use.
- Striving to preserve the collections in good condition so that they continue to support park programs and interpretive themes, returning original objects to the national historic sites, as well as restoring the original quality of the interiors would contribute to a more authentic experience of the interiors. A greater number of original objects would be on display, with the quality of the interiors better reflecting their historic condition. This would have a **major long-term positive** impact on the visitor experience. If sufficient resources are not secured to preserve the collections in good condition, a **major long-term negative** impact could ensue.
- Enhancing the viability of important natural communities would have a **negligible** impact on the visitor experience, because it is not likely to be noticed by most visitors.
- In all alternatives, park managers would work in partnership to protect the parks' historic setting, re-establish the rural character of the Route 9 and Route 9G corridors, enforce the 100-foot deed restriction along the east side of Route 9, and preserve the sweeping views of the Hudson River. This course of action may have positive cumulative impacts on the visitor experience ranging from imperceptible to appreciable, depending on how much land is protected and what types of conservation measures are put in place.
- Advancing scholarship would have an **overall positive** impact on visitor use, as it would support more accurate interpretation.

IMPACTS RELATED TO PUBLIC USE AND ENJOYMENT ACTIONS

In all alternatives, park managers would undertake the following public-use related actions: confirm the period of interpretation; update orientation materials; improve the arrival experience; offer a fuller presentation of the homes; manage the size of tour groups; and provide information about trail accessibility. Some of these activities would have an impact on visitor use and experience. Those impacts are described below.

- Confirming the period of interpretation would provide guidance to the parks' interpretive staff, but is not likely to be noticeable to the visitor and would have a **negligible** impact.
- Updating orientation materials, increasing access to pre-arrival

information, and improving the arrival experience would have a **major long-term positive** impact on visitors by clarifying how to begin their park experience.

- Offering a more complete presentation of the main residences, including opening additional areas to public viewing would have a **moderate long-term positive** impact on the visitor experience by providing greater access to primary park resources.
- Limiting the size of tour groups to support interpretive and resource management objectives would have a **moderate to major long-term positive** impact, as it would allow visitors to have greater interaction with the tour guide and a better view of the resources. This proposal may result in longer waits to take tours, which could cause frustration or disappointment, but such problems could be mitigated by conducting tours more frequently as resources allow.
- Providing information about trail lengths, grades, and surfaces could help those with disabilities make better informed decisions about which areas of the parks they wish to experience. This would have a **minor long-term positive** impact.

IMPACTS RELATED TO PARK OPERATIONS

In all alternatives, park managers would undertake the following park operations actions: develop a new maintenance facility; increase energy efficiency; promote car-free access; continue to provide housing, but establish tenant guidelines; and continue existing partnership efforts. Some of these activities would have an impact on visitor use and experience. Those impacts are described below.

- Providing new maintenance facilities would have a **major long-term positive** impact on the visitor experience by making the Vanderbilt Coach House available for public use and by removing visual clutter from the entrance to the Home of FDR. It would also enhance the ability of the park staff to maintain and present park resources to the visitor.
- Providing a sustainable alternative to private vehicle access to the parks would have a **moderate to major long-term positive** impact, as it would decrease the number of automobiles on site and on access roads, improve visitor safety at the park entrances, enhance access for visitors without automobiles and those with ambulatory challenges, encourage multi-site visitation, and enhance visitor access to more areas of the parks.
- Providing affordable, clean, and well-maintained housing, with guidelines for parking tenants' vehicles and storage of personal effects, would have a minor positive impact, as it would remove visual clutter in high-impact areas, such as the Wallace Center parking lot and the entrance to Vanderbilt.

Impacts of the No-Action Alternative on Visitor Use and Experience

IMPACTS RELATED TO RESOURCE MANAGEMENT ACTIONS

In the No-Action Alternative park managers would manage cultural landscapes as at present and rely on partners to protect the Red House.

- The No-Action Alternative would allow the continued degradation of historic views and the forest plantations and the present level of maintenance of the designed landscapes and gardens, farm fields, historic roads and trails, and natural woodlands. This course of action would have a **major long-term negative** impact on the visitor experience by obscuring resources that had great meaning to the historic occupants, and by presenting conditions that do not fully reflect the historic conditions.

IMPACTS RELATED TO PUBLIC USE AND ENJOYMENT ACTIONS

In the No-Action Alternative, park managers would: update orientation materials; continue to center the visitor experience on the historic residences, but open the Vanderbilt Coach House to an occasional tour; continue educational programs as at present; and continue trail use/river connections as at present.

- Updating orientation materials to reflect current conditions would have a **minor long-term positive** impact on the visitor experience by facilitating wayfinding.
- Continuing to center the visitor experience on the primary residences would have a **negligible** impact, as there would be little discernible change to the visitor experience. However, this would continue to limit visitor understanding of the estate outbuildings and landscape and present an incomplete picture of the parks to visitors.
- Continuing to present educational programs at current levels would have a **negligible** impact, as there would be little discernible change to the visitor experience. However, this represents a lost opportunity to provide children and other visitors with a more in-depth understanding of the parks' resources and values.
- Continuing recreational use and river connections as at present would have a **negligible** impact, as there would be little discernible change to the visitor experience.

IMPACTS RELATED TO PARK OPERATIONS ACTIONS

In the No-Action Alternative, park managers would: upgrade the Bellefield property; fill staff positions to implement the target organization with exiting funding sources; and maintain partnerships at existing levels.

- Upgrading Bellefield would have a **minor long-term positive** impact on the visitors who go to headquarters to conduct business at the parks.
- Filling staff positions as outlined in the existing target organization would begin to stem the decline in the condition of park resources (which has taken place over many years of diminished funding) and would have a **minor long-term positive** impact on the visitor experience, by improving the condition of park resources. Should the vacancies and positions not be filled and staffing levels continue to decrease along with federal appropriations, however, it would become increasingly difficult to maintain park resources and offer programs, which would degrade the visitor experience.

Impacts of Action Alternative One on Visitor Use and Experience

IMPACTS RELATED TO RESOURCE MANAGEMENT ACTIONS

In Action Alternative One, park managers would restore cultural landscapes in core locations and rely on partners to protect the Red House.

- Action Alternative One would restore historic views, designed landscapes, historic roads and trails, and farm fields to their fullest extent, and manage the forest plantations and natural woodlands to perpetuate their historic character. These activities would have a **major long-term positive** impact by recreating an authentic experience as fully as possible and by providing greater understanding of the historic operations and functioning of the properties.

IMPACTS RELATED TO PUBLIC USE AND ENJOYMENT ACTIONS

In Action Alternative One, park managers would: update orientation materials to present the Roosevelt sites as components of a single entity and the Wallace Center as the starting point for Val-Kill tours; improve public access and interpretation of outbuildings, including a restored Vanderbilt Coach House; enhance children's educational programming, with select outbuildings used for teaching space; and encourage use of the trails in coordination with expanded interpretation of the landscape.

- Publishing new materials that more effectively express the extent and function of the historic estates would have a **moderate long-term positive** impact on the visitor experience by providing greater understanding of the context of the historic estates.
- Interpreting the historic Roosevelt Family Estate as a once-unified entity would have a **minor long-term positive** impact on the visitor experience, as it would enhance understanding of Eleanor and Franklin Roosevelt's experiences and uses of the property.
- Directing visitors to the Wallace Center as the starting point for Val-Kill tours would have both positive and negative impacts on the visitor experience. In one sense, it would ensure that visitors receive as complete an orientation to Val-Kill as possible, allowing them to view the introductory exhibits and see the film in the Wallace Center. However, should the parking area be removed, this proposal would require visitors whose primary destination is Val-Kill to travel to the Home of FDR NHS first. This could cause frustration and negatively affect the visit. Overall, this course of action could have **moderate long-term** consequences that are both **positive and negative**.
- The introduction of more varied tours and new media, and greater access to and interpretation of the grounds and primary outbuildings, would provide a fuller depiction of important themes, address stories that are now underrepresented, and stimulate visitation. These actions would have a **major long-term positive** impact on visitor use and experience.
- Providing adequate teaching space and enhancing the capacity of park staff to offer a greater quantity and quality of interactive educational

programs would improve the experience of school groups and would have a **major long-term positive** impact on visitor use and experience.

- Encouraging greater use of the trails in association with interpretive programming would provide more opportunities for visitors to explore the estates and thereby enhance interpretation, which would be a **moderate long-term benefit**.

IMPACTS RELATED TO PARK OPERATIONS ACTIONS

In Action Alternative One, park managers would upgrade Bellefield and seek increases in staff and in volunteer participation through enhanced partnerships.

- Upgrading Bellefield would have a **minor long-term positive** impact on the visitors who go to headquarters to conduct business at the parks.
- Seeking increases in staff and volunteer participation would have a **moderate long-term positive** impact on the visitor experience by increasing the capacity of the park staff to present programs and maintain resources.

Impacts of Action Alternative Two on Visitor Use and Experience

IMPACTS OF RESOURCE MANAGEMENT ACTIONS

In Action Alternative Two, park managers would rehabilitate cultural landscapes, making allowances for contemporary practices, and seek an NPS ownership interest in the Red House.

- Action Alternative Two would expand historic views, preserve, rehabilitate, and repair designed landscapes, re-establish key historic roads and trails, return some historic fields to agricultural uses, and manage forest plantations and natural woodlands with a range of treatments, from perpetuating historic character to modern forestry practices and enhancing habitat values. These activities would have a **major long-term positive** impact on the visitor experience by increasing visitors' understanding of the historic condition and functioning of the properties, and by presenting themes in a contemporary context that offers greater opportunities for interpretation, public participation, and understanding of the parks' resources.
- Protecting the Red House through NPS ownership and partnership efforts, such as through a lease arrangement, would offer greater control over its redevelopment than relying solely on partners with no NPS ownership interest, as in the other alternatives. This would have a **negligible to minor positive** impact on visitor use by allowing for greater mitigation efforts and prevention of undesirable actions.

IMPACTS OF PUBLIC USE AND ENJOYMENT ACTIONS

In Action Alternative Two, park managers would: update orientation materials; offer a wide array of programs to reach a range of audiences; adaptively re-use the Vanderbilt Coach House for a compatible public purpose; expand educational programming, including the establishment of a learning center; actively promote compatible recreational use of the trails; and enhance river connections.

- Publishing new materials that more effectively portray the layout and function of the historic estates would have a **moderate long-term positive** impact on the visitor experience by providing a fuller depiction of historic conditions.
- The introduction of more diverse and innovative programs, such as demonstrations and special events, and interpretive offerings aimed at schools and other organized groups, in addition to increasing emphasis on the contemporary relevance of the parks' stories, would provide a fuller depiction of important themes and stimulate repeat visitation. This would offer a more engaging and participatory experience than the other alternatives, a **major long-term positive** impact.
- Public access to key structures and fuller interpretation of their exteriors, with some structures being adaptively reused, would have a **major positive** impact on the visitor experience.
- The wider scope and projected audience for educational programming under this alternative would result in a **major long-term positive** impact on the visitor experience by involving more people in the educational programs.
- This alternative places a greater emphasis on offering a variety of recreational activities on park trails and would have a **moderate long-term positive** impact on the visitor experience by allowing a greater diversity of ways to experience and learn about the parks.
- Increasing connections to the Hudson River would have a **moderate long-term positive** impact on the visitor experience by increasing the ability to access the sites via the Hudson River and by increasing understanding of the Hudson River, which was fundamental to the development of the Roosevelt and Vanderbilt sites.

IMPACTS ON PARK OPERATIONS ACTIONS

In Action Alternative Two, park managers would: upgrade Bellefield for park and partner use; augment sources of revenue with partners; seek increases in staff; and seek extensive partnership support.

- In addition to the proposals in Action Alternative One, Action Alternative Two proposes to make areas of the Bellefield property (portions of the first floor of the Mansion and the Farrand Garden) more available to partners for fee-generating purposes. This would have a **minor long-term positive** impact for those who attend the functions.
- Implementing Action Alternative Two would require filling more staff positions than proposed in the No-Action Alternative. It would also involve augmenting the staff with volunteer docents, extensive partner support, and seeking new sources and augmenting existing sources of revenue to help support park operations and maintenance. This could have an appreciable positive impact on park resources and would encourage greater community access, which would translate to a **major long-term positive** impact on the visitor experience.

Conclusion

The impacts to visitor use and experience range from minor to major and from positive to negative. The No-Action Alternative, including the elements common to all alternatives, would have minor to major long-term positive and minor to major long-term negative impacts. Action Alternative One, including the elements common to all alternatives, would have minor to major long-term positive and minor to moderate long-term negative impacts. Action Alternative Two, including the elements common to all alternatives, would have minor to major long-term positive impacts.

Overall, the No-Action Alternative would result in the greatest number of negative impacts on the visitor experience, with Action Alternative Two providing the greatest overall benefit.

Impacts on Park Operations and Facilities

Methodology

The term Park Operations and Facilities, for the purpose of this analysis, refers to the quality and effectiveness of the infrastructure and the ability to maintain the infrastructure necessary for the operation of the parks. For purposes of analyzing potential impacts, the thresholds of change for the intensity of an impact on park operations and facilities are defined in the following table.

PARK OPERATIONS AND FACILITIES	
Negligible	Impact would not be detectable, with no discernible effect on park operations and facilities.
Minor	Impact would be detectable but with no appreciable effect on park operations and facilities.
Moderate	Impact would be readily apparent, likely long-term, and would result in a change in park operations and facilities in a manner noticeable to staff and to the public.
Major	Impact would be readily apparent, long-term, would result in a substantial change in park operation and facilities in a manner noticeable to staff and the public, and would be markedly different from existing operations.

Impacts of Elements Common to All Alternatives on Park Operations and Facilities

IMPACTS RELATED TO RESOURCE MANAGEMENT ACTIONS

In all alternatives, park managers would undertake the following resource management actions: develop an implementation plan; continue to present the residences as furnished interiors or exhibits and continue basic repairs; preserve collections, acquire objects, and restore original quality of the interiors; enhance

the viability of important natural communities; work with partners to protect the historic setting and distant views; and advance scholarship. Some of these activities would have an impact on park operations. Those impacts are described below.

- Developing an implementation strategy would help managers develop a long-term business plan for the parks that would aid in securing resources. Depending upon the success of park managers in securing resources, this proposal could have a **negligible to moderate long-term positive** impact on park operations. If sufficient resources are not secured, a **major long-term negative** impact on park operations could result.
- In all alternatives, park managers would continue to present the historic residences as fully furnished interiors or as interpretive exhibits. This represents little change over the current management, making the impact **negligible**.
- In all alternatives, park managers would strive to preserve the collections in good condition and continue to acquire museum objects. This represents little change over the current management philosophy, making the impact **negligible**. If sufficient resources are not secured to preserve the collections in good condition, a **major long-term negative** impact could ensue.
- Fully protecting important natural communities may alter management regimes, but would not likely result in an appreciable requirement for additional staff time, yielding an overall minor impact on park operations.
- Working cooperatively to protect the parks' historic setting and broader viewsheds would require additional staff time for coordination with interested parties and building effective relationships, but would have an overall **negligible** impact on park operations.
- Advancing scholarship would have an **overall positive** impact on park operations by helping employees make more informed decisions and provide more accurate and stimulating interpretation.

IMPACTS RELATED TO PUBLIC USE AND ENJOYMENT ACTIONS

In all alternatives, park managers would undertake the following public-use related actions: confirm the period of interpretation; upgrade orientation materials; improve the arrival experience; offer a fuller presentation of the homes; manage the size of tour groups; and provide information about trail accessibility.

- Confirming the period of interpretation would provide guidance to the parks' interpretive staff by clarifying the time period embraced by the parks' interpretive themes, which would provide a **minor benefit**.
- Improving orientation materials in addition to the visitor arrival experience would have a **minor to moderate long-term positive** impact on park operations by helping visitors better understand how to start their visit, with less involvement of the park staff. This could also reduce the frequency with which the park staff is called to re-direct visitors from Bellefield to the FDR Home (due to a misconception that the Bellefield Mansion is the Home).

- Offering a fuller presentation of the historic residences would have a **negligible** impact on park operations, as it would require no additional staff and become part of the standard tour.
- Managing the size of tour groups to support interpretive and resource management objectives would have a **minor long-term positive** impact on park operations, as it would improve security within primary historic structures.
- Providing information on trail accessibility would involve the development of publications and signage, but would have a **negligible** impact on park operations.

IMPACTS RELATED TO PARK OPERATIONS ACTIONS

In all alternatives, park managers would undertake the following park operations actions: develop a new maintenance facility; increase energy efficiency; promote car-free access; continue to provide housing, but establish tenant guidelines; and continue existing partnership activities.

- Consolidating all maintenance functions (Buildings and Grounds, and Roads and Trails) in a new facility would have a **major long-term positive** impact on park operations by: halting the ongoing damage to the Vanderbilt Coach House and the Bellefield outbuildings caused by decades of maintenance use and storage of heavy equipment; improving the health and safety of park maintenance staff by providing a well-ventilated workspace that meets OSHA standards; and improving operational efficiency by consolidating maintenance functions in a single location. Increases in utility costs and maintenance requirements associated with a new structure would have a **minor long-term negative** impact on the park budget.
- Increasing the parks' energy efficiency and sustainability would have a **minor to moderate long-term positive** impact on park operations and facilities by reducing the utility costs associated with operating the parks.
- From an operational standpoint, providing a sustainable alternative to private vehicle access to the parks would have a **moderate long-term negative** impact by increasing management responsibilities and direct costs of operating the system. Costs for the system would be covered by a set-aside in tour fees, grant funding, and if necessary, an on-board fare. Conversely, this proposal may preclude the need to expand parking lots to accommodate overflow parking at the sites and thereby avoid an increase in maintenance responsibilities. Over time, it might also reduce the need for staff to provide traffic control.
- Continuing to provide housing to seasonal and temporary staff members and visiting scholars will allow the parks to continue to attract and retain quality personnel and to accommodate staff from outside the region. Establishing tenant guidelines for the parking of cars and storage of personal items would help manage clutter around the residences that are located in areas of high visitor use. The continued presence of park employees improves resource protection, and using the structures for housing improves monitoring of their condition. Increases in costs would

continue to be absorbed by increases in rents. Overall, this proposal has a **minor long-term positive** impact on park operations.

Impacts of the No-Action Alternative on Park Operations and Facilities

IMPACTS RELATED TO RESOURCE MANAGEMENT ACTIONS

In the No-Action Alternative, park managers would manage cultural landscapes as at present and rely on partners to protect the Red House.

- The No-Action Alternative would continue management regimes as at present, which would have **negligible** impacts on park operations.

IMPACTS RELATED TO PUBLIC USE AND ENJOYMENT ACTIONS

In the No-Action Alternative, park managers would: update orientation materials; continue to center the visitor experience on the historic residences, but open the Vanderbilt Coach House to an occasional tour; continue educational programs as at present; and continue trail use/river connections as at present.

- Updating orientation materials, continuing tours at present, with an occasional Coach House tour and continuing educational programs as at present would have a **negligible** impact on park operations.
- Continuing recreational use at current levels would have a **minor long-term negative** impact on park operations, as prohibited ATV use would continue and may require increased attention by law enforcement staff.

IMPACTS RELATED TO PARK OPERATIONS ACTIONS

In the No-Action Alternative, park managers would: upgrade the Bellefield property; rely on existing revenue sources; fill positions to implement the target organization; and maintain partnerships at existing levels.

- Upgrading the Bellefield property to improve its use as park headquarters would have a **minor long-term positive** impact on park operations and facilities by providing adequate workspace for the park staff.
- Filling staff vacancies and other positions as outlined in the existing organization would begin to stem the decline in the condition of park resources (which has taken place over many years of diminished capacity) and would provide the staff necessary to offer basic visitor services. This proposal would have a **minor long-term negative** impact on the park budget, but a **minor long-term positive** impact on the ability to preserve resources and offer visitor services.

Impacts of Action Alternative One on Park Operations and Facilities

IMPACTS RELATED TO RESOURCE MANAGEMENT ACTIONS

In Action Alternative One, park managers would restore cultural landscapes in core locations and rely on partners to protect the Red House.

- Recreating the historic appearance of the views, forest plantations, forest-field configuration, the designed landscape, and historic roads and trails to the extent possible and managing select natural woodlands for

their historic character would result in significant additional maintenance and landscape management responsibilities. There would be additional acres of open meadows and fields to be mown or hayed, additional gardens to tend, forest plantations to manage, and more soft-surfaced roads and trails to maintain. More staff time would be devoted to routine maintenance activities. Some of these additional responsibilities could be undertaken by volunteers, contractors, or other entities. However, these activities would still require staff hours to coordinate volunteers, provide resource information, and administer cooperative agreements or contracts. Overall, these proposals would have a **major long-term negative** impact on park operations, due to the additional requirements for maintenance and additional park staff and equipment.

IMPACTS RELATED TO PUBLIC USE AND ENJOYMENT ACTIONS

In Action Alternative One, park managers would: update orientation materials to present the Roosevelt sites as components of a single entity and the Wallace Center as the starting point for Val-Kill tours; improve public access and interpretation of outbuildings, including a restored Vanderbilt Coach House; enhance children's educational programming, with select outbuildings used for teaching space; and encourage use of the trails in coordination with enhanced interpretation of the landscape.

- This alternative allows for consideration of reducing the size of, or even removing, the main visitor parking area at Val-Kill. This would have a **minor long-term positive** impact on park operations, because it would reduce maintenance requirements.
- Improving public access to important estate outbuildings and presenting a more complete depiction of the history and use of the estates would impose additional operational responsibilities. Some of the programs, however, would be offered through new technologies and media and with volunteer support. Opening more outbuildings to the public would increase the maintenance and protection workload. There would also be a slight increase in utility costs. The increases to staff workload and utility costs would have a **moderate long-term negative** impact on operations.
- Enhancing children's educational programming would require the adaptation of the Val-Kill Stable-Garage and minor interior improvements to the Roosevelt Garage and, potentially, the Vanderbilt Coach House. These buildings are currently used for public, administrative, maintenance, and storage functions. The level of maintenance of the Val-Kill Stable-Garage (and possibly the Vanderbilt Coach House, if portions of it are used as educational space,) would be increased by public use. Under Action Alternative One, it is presumed that NPS staff would conduct the bulk of educational programming, as well as routine maintenance and janitorial requirements of the education space, augmented by volunteers. The increases in park staff responsibilities required to conduct these activities would have a **moderate long-term negative** impact on park operations.

- Encouraging greater use of the trails would have a **minor long-term negative** impact on park operations by increasing the associated maintenance and protection workload.

IMPACTS RELATED TO PARK OPERATIONS ACTIONS

In Action Alternative One, park managers would upgrade Bellefield and seek increases in staff and in volunteer participation through enhanced partnerships.

- Upgrading the Bellefield property to improve its use as park headquarters would have the same **minor long-term positive** impact as in the No-Action Alternative.
- Implementing Action Alternative One would require filling more staff positions than those outlined in the No-Action Alternative, as well as augmenting the staff with volunteer docents. Bringing the staff up to this level would improve the condition of park resources and enhance visitor services. Greater reliance on volunteers for visitor services and some maintenance responsibilities would be positive in terms of freeing the staff to perform other duties, but would require the staff to spend time managing volunteers. It also presents the challenge of monitoring the volunteers as closely as NPS employees. Overall, this proposal would have a **major long-term negative** impact on the park budget due to the additional staffing responsibilities, but a **major long-term positive** impact on the ability to preserve resources and offer visitor services.
- Increasing volunteer and partner participation in the maintenance of the parks could have a **moderate long-term positive** impact on park operations and facilities by augmenting the parks' capacity to conduct maintenance activities and by reducing the maintenance backlog.

Impacts of Action Alternative Two on Park Operations and Facilities

IMPACTS RELATED TO RESOURCE MANAGEMENT ACTIONS

In Action Alternative Two, park managers would rehabilitate cultural landscapes, making allowances for contemporary practices, and seek an NPS ownership interest in the Red House.

- Rehabilitating cultural landscapes, allowing for modern forestry and farming practices and for flexibility to accommodate interpretive objectives, and managing select natural woodlands for historic and ecological value would result in more maintenance and management responsibilities than the No-Action Alternative. There would be additional open meadows and fields to be managed, gardens to tend, and soft-surfaced roads and trails to maintain, but fewer than in Action Alternative One, as many of the new responsibilities would be undertaken by others through agreements, leases, or contracts. For example, open field areas could be returned to agriculture through leases with local farmers; establishing a community garden on the site of the FDR Home Garden would only be undertaken if it can be done by partners. This alternative may require that less NPS staff time be devoted to routine maintenance activities

than under Action Alternative One, but more NPS staff hours would be needed for coordination and administration. Overall, these proposals would have a **moderate long-term negative** impact on park operations, due to increases in management and administrative requirements and the additional park staff required to conduct activities.

- Protecting the Red House through partnership efforts, with or without NPS involvement, would have a **negligible** impact on park operations, as it is presumed that the structure would be maintained by others.

IMPACTS RELATED TO PUBLIC USE AND ENJOYMENT ACTIONS

In Action Alternative Two, park managers would: update orientation materials; offer a wide array of programs to reach a range of audiences; adaptively re-use the Vanderbilt Coach House for a compatible public purpose; expand educational programming, including the establishment of a learning center; actively promote compatible recreational use of the trails; and enhance river connections.

- Introducing more diverse and innovative programs and placing greater emphasis on the contemporary relevance of park themes would require additional staff, even though more of the programs would presumably be presented by park partners. Staff time would be required for coordination of partners and administration of cooperative agreements, contracts, and leases. It is possible that NPS regional offices or other administrative centers could undertake some of these responsibilities. The increase in activities and park staff would have a **moderate long-term negative** impact on park operations. However, these activities would establish long-term relationships with partners to absorb some of the visitor service, maintenance, and operations responsibilities, which would result in more community and partner support for park stewardship. In addition, increased focus on “cyber visitors” would offer educational opportunities for visitors that are essentially impact-free. Overall, these activities would also have a **major long-term positive** impact on park operations.
- Adaptively re-using the Vanderbilt Coach House for compatible public purposes through lease or other mechanism would allow public access to this structure and improve its condition with minimal requirements of park staff time. This would have a **minor long-term positive** impact on the park operations.
- Enhancing and expanding educational programming to reach a broader audience would require the adaptation of the Bellefield outbuildings for educational purposes. Although these buildings are currently maintained for administrative and maintenance functions, the level of maintenance would increase due to their use as public spaces. Under Action Alternative Two, it is presumed that a private partner would conduct the educational programming, as well as share routine maintenance and janitorial responsibilities. The increase in NPS staff time for coordination with the private partner and administration of agreements would have a **minor long-**

term negative impact on the park budget by taking already limited staff time away from other matters.

- Working with partners to expand educational programming would establish long-term relationships that would enable the park to provide substantially more educational programming without commensurate increases in NPS staff. It would result in greater community and partner involvement, potentially eliciting greater support for park stewardship. This proposal would have a **major long-term positive** impact on park operations.
- Actively promoting recreational use of the trails, developing new trail segments, and establishing a multi-use trail system that links the park sites would have a **moderate long-term negative** impact on park operations by increasing the maintenance and law enforcement workload, due to the potential for a larger number and variety of such uses. Multi-use trails could cause user conflicts and could increase the complexity of enforcing appropriate trail use.
- Increasing connections to the Hudson River and water-borne park access would have a **minor long-term negative** impact on park operations and facilities by increasing the maintenance and visitor protection workload at Roosevelt Cove and Bard Rock.

IMPACTS RELATED TO PARK OPERATIONS ACTIONS

In Action Alternative Two, park managers would: upgrade Bellefield for park and partner use; augment sources of revenue with partners; seek increases in staff; and seek extensive partnership support.

- Upgrading the Bellefield property to improve its use as park headquarters would have the same **minor long-term positive** impact as in the No-Action Alternative. In addition, Action Alternative Two proposes to make areas of the Bellefield property (portions of the first floor of the Mansion and the Farrand Garden) more available for partner use for fee-generating purposes. This proposal would have a **minor long-term negative** impact on park operations by adding to associated administrative and maintenance responsibilities. The benefits associated with the additional revenues are discussed below.
- Implementing Action Alternative Two would require filling more staff positions than those proposed in the No-Action Alternative and also augmenting the staff with volunteer docents and extensive partner support. Bringing the staff up to this level, and working in a new capacity with partners, would improve the condition of park resources and enhance visitor services. Greater reliance on volunteers and on partners to provide visitor services and conduct maintenance activities would be positive in terms of freeing the staff to perform other duties, but would require the staff to spend additional time to manage the volunteers and coordinate with partners. This type of management is more complex and also presents a greater challenge of monitoring. Overall, this proposal

would have a **minor long-term negative** impact on the park budget, but a **major long-term positive** impact on the ability to preserve resources and offer visitor services.

- Seeking new sources and augmenting existing sources of revenue to help support park operations and maintenance could have a **major long-term positive** impact on park operations and facilities by substantially increasing the capacity to maintain the resources and operate the park. Increased use of certain areas of the parks for partner-based revenue-generating purposes would increase maintenance responsibilities, though it is expected that the costs associated with these increases would be covered by the gains in revenue generated. There may be **moderate short-term negative** impacts on park operations until the partners and staff members develop systems for accommodating these uses and sufficient revenues are generated to cover the increased costs.

Conclusion

The impacts to park operations and facilities range from minor to major and from positive to negative. The No-Action Alternative, including the elements common to all alternatives, would have minor to major long-term positive and minor to moderate long-term negative impacts. Action Alternative One, including the elements common to all alternatives, would have minor to major long-term positive and minor to major long-term negative impacts. Action Alternative Two, including the elements common to all alternatives, would have minor to major long-term positive and minor to major long-term negative impacts, with moderate short-term negative impacts.

Overall, all alternatives would result in positive and negative impacts on park operations, with Action Alternative Two providing the greatest benefit.

Impacts on the Socioeconomic Environment

Methodology

The impacts of proposed alternatives on the economy are created by visitor expenditures and through the NPS management and operation of the parks, principally employment and regional non-labor expenditures. The planning team based this impact analysis largely on review of existing studies, information provided by experts in the NPS and other agencies, and the professional judgment of the Roosevelt-Vanderbilt staff. For purposes of analyzing potential impacts, the thresholds of change for the intensity of an impact on the socioeconomic environment are defined in the following table.

Table 4-5: Impact Intensities for the Socioeconomic Environment

SOCIOECONOMIC ENVIRONMENT	
Negligible	Impact on the regional and local economy would not be measurable.
Minor	Impact would affect only a small sector of the economy and would require effort to measure. The consequences would not be readily apparent.
Moderate	Impact would be clearly measurable and affect either a small or large sector of the local or regional economy. Adverse impacts would not prove sufficient to threaten any economic sector, and positive impacts would not result in noticeable structural shifts.
Major	Impact would be readily apparent and cause appreciable shifts in the regional and local economy, either negative or positive.

Impacts of Elements Common to All Alternatives on the Socioeconomic Environment

IMPACTS RELATED TO RESOURCE MANAGEMENT ACTIONS

In all alternatives, park managers would undertake the following resource management actions: develop an implementation plan; continue to present the residences as furnished interiors or exhibits and continue basic repairs; preserve collections, acquire objects, and restore original quality of the interiors; enhance the viability of important natural communities; work with partners to protect the historic setting and distant views; and advance scholarship. These activities are unlikely to have a measurable effect on the local and regional economy.

IMPACTS RELATED TO PUBLIC USE AND ENJOYMENT ACTIONS

In all alternatives, park managers would undertake the following public-use related actions: confirm the period of interpretation; upgrade orientation materials; improve the arrival experience; offer a fuller presentation of the homes; manage the size of tour groups; and provide information about trail accessibility. These activities are unlikely to have a measurable effect on the local and regional economy.

IMPACTS RELATED TO PARK OPERATIONS ACTIONS

In all alternatives, park managers would undertake the following park operations actions: develop a new maintenance facility; increase energy efficiency; promote car-free access; continue to provide housing, but establish tenant guidelines; and continue existing partnership activities.

- Constructing new maintenance facilities and making improvements to Bellefield to improve its efficiency as park headquarters would have a **minor short-term benefit** on the local and regional economy by providing a limited number of jobs for the duration of the construction.
- Providing a sustainable alternative to private vehicle access to the parks would enhance access for visitors without automobiles, encourage multi-

site visitation, and, depending upon the scope of the system, improve connections to the town business district, the Culinary Institute of America, and other visitor destinations. This enhanced access could increase visitor spending at local restaurants, grocery stores, lodging establishments, and other businesses and visitor attractions, but decrease visitor spending at gas stations. Overall, this proposal could result in a **minor long-term benefit** to the local economy.

- Continuing to provide housing to staff and researchers would have **negligible** impacts on the local economy, as this represents no change over the current situation.
- One of the partnership projects in the planning stage, the Hudson Valley Welcome Center Project, could appreciably increase off-site visitor spending, primarily due to extending length of stay in the region. Depending upon the success of the effort, the proposed Hudson Valley Welcome Center project could result in **minor to moderate positive** impacts on the local and regional economy.

Impacts of the No-Action Alternative on the Socioeconomic Environment

IMPACTS RELATED TO RESOURCE MANAGEMENT ACTIONS

In the No-Action Alternative park managers would manage cultural landscapes as at present and rely on partners to protect the Red House. These actions would have **negligible** impacts on the local and regional economy.

IMPACTS RELATED TO PUBLIC USE AND ENJOYMENT ACTIONS

In the No-Action Alternative, park managers would: update orientation materials; continue to center the visitor experience on the historic residences, but open the Vanderbilt Coach House to an occasional tour; continue educational programs as at present; and continue trail use/river connections as at present. These actions would have **negligible** impacts on the local and regional economy.

IMPACTS RELATED TO PARK OPERATIONS ACTIONS

In the No-Action Alternative, park managers would: upgrade the Bellefield property; fill staff positions to implement the target organization with existing funding sources; and maintain partnerships at existing levels.

- Park operations actions would involve filling more staff positions and expenditures on repairs and upgrades. The impact on the local and regional economy would be **negligible to minor long-term and positive**.

Impacts of Action Alternative One on the Socioeconomic Environment

IMPACTS RELATED TO RESOURCE MANAGEMENT ACTIONS

In Action Alternative One, park managers would restore cultural landscapes in core locations and rely on others to protect the Red House.

- Resource management activities proposed under Action Alternative One would require expenditures by the park, its partners, and others.

These investments would have a **negligible to minor short-term positive** impact on the local and regional economy.

IMPACTS RELATED TO PUBLIC USE AND ENJOYMENT ACTIONS

In Action Alternative One, park managers would: update orientation materials to present the Roosevelt sites as components of a single entity and the Wallace Center as the starting point for Val-Kill tours; improve public access and interpretation of outbuildings, including a restored Vanderbilt Coach House; enhance children's educational programming, with select outbuildings used for teaching space; and encourage use of the trails in coordination with expanded interpretation of the landscape.

- The introduction of more varied tours and new interpretive media, improving interpretation of the estate grounds and outbuildings, encouraging greater recreational use of the trails, and enhancing children's educational programming would provide a fuller depiction of important themes, and could stimulate repeat and new visitation and potentially extend the length of a visitor's stay. These actions could have a stabilizing influence on visitation, and avert a continued decline, which could have a **negligible to minor long-term positive** impact on the local and regional economy.

IMPACTS RELATED TO PARK OPERATIONS ACTIONS

In Action Alternative One, park managers would upgrade Bellefield and seek increases in staff and in volunteer participation through enhanced partnerships.

- Implementing Action Alternative One would require increasing partner participation in the operation and maintenance of the parks, filling more staff positions than those outlined in the No-Action Alternative, as well as other expenditures. The impact on the local and regional economy would be **minor, long-term, and positive**.

Impacts Associated with Action Alternative Two

IMPACTS RELATED TO RESOURCE MANAGEMENT ACTIONS

In Action Alternative Two, park managers would rehabilitate cultural landscapes, making allowances for contemporary practices, and seek an NPS ownership interest in the Red House.

- Resource management activities proposed under Action Alternative Two would require expenditures by the park, its partners, and others. These investments would have a **negligible to minor short-term positive** impact on the local and regional economy.

IMPACTS RELATED TO PUBLIC USE AND ENJOYMENT ACTIONS

In Action Alternative Two, park managers would: update orientation materials; offer a wide array of programs to reach a range of audiences; adaptively re-use the Vanderbilt Coach House for a compatible public purpose; expand educational programming, including the establishment of a learning center; actively

promote compatible recreational use of the trails; and enhance river connections.

- Action Alternative Two provides a greater range of visitor offerings than the other alternatives. These activities would offer a more engaging and participatory experience, which could stimulate repeat and new visitation and extend visitors' length of stay to a greater degree than the other alternatives. This could result in stabilizing or even increasing visitation, which could have a **minor long-term positive** impact on the local and regional economy.

IMPACTS RELATED TO PARK OPERATIONS ACTIONS

In Action Alternative Two, park managers would: upgrade Bellefield for park and partner use; augment sources of revenue with partners; seek increases in staff; and seek extensive partnership support.

- Implementing Action Alternative Two would require augmenting the staff with volunteer docents and extensive partner support, filling more staff positions than those outlined in the No-Action Alternative, as well as other expenditures. The emphasis on partnerships would increase the capacity to offer programs and promote community involvement. The adaptive re-use of structures and agricultural uses of the landscape could generate opportunities for businesses. The overall impact on the local and regional economy would be **minor, long-term, and positive**.

Conclusion

The impacts to the socioeconomic environment are generally minimal in all alternatives, with Action Alternatives One and Two providing a similar level of benefit.

Table 4–6: Summary of Impacts – Common to All Alternatives

Please note that this table significantly condenses the alternatives and summarizes the potential impacts.
For a full description of the alternatives, see Part Two.
For a full description of the potential impacts, see the narrative in Part Four.

Potential Activities	Cultural Resources			
	LANDSCAPES	STRUCTURES	COLLECTIONS	ARCHEOLOGY
Preserving Park Resources				
Develop Implementation Strategy	Negligible to Moderate +	Negligible to Moderate +	Negligible to Moderate +	
Continue to Present Residences as Furnished Interiors/Exhibits; Continue Basic Repairs		Negligible to Minor +		Negligible to Minor –
Work with Partners to Protect Historic Setting and Distant Views	Noticeable to Appreciable +			
Preserve Collections; Acquire Objects; Restore Original Quality of Interiors			Major +	
Enhance Viability of Important Natural Communities				
Providing for Public Use and Enjoyment				
Confirm Period of Interpretation				
Update Orientation Materials				
Improve Arrival Experience	Minor +			
Offer Fuller Presentation of Homes		Minor –	Minor –	
Manage Size of Tour Groups		Minor +	Moderate +	
Provide Accessibility Information on Trails				

Legend

Positive Impacts: +

Negative Impacts: -

Short-term impacts indicated in *italic*

Cell is blank if no impact is expected

Natural Resources					Visitor Use	Park Ops	Socio-Econ
WILDLIFE	VEGETATION	WETLANDS	SOILS	TOPOGRAPHY			
Negligible to Minor +	Negligible to Minor +					Negligible to Moderate +	Negligible
					Negligible	Negligible	Negligible
Imperceptible to Appreciable +	Imperceptible to Appreciable +	Imperceptible to Appreciable +	Imperceptible to Appreciable +	Imperceptible to Appreciable +	Imperceptible to Appreciable	Negligible	Negligible
					Major +	Negligible	Negligible
Moderate +	Moderate +	Moderate +			Negligible	Minor -	Negligible
					Negligible	Minor +	Negligible
					Major +	Minor to Moderate +	Negligible
					Major +	Minor to Moderate +	Negligible
					Moderate +	Negligible	Negligible
					Moderate to Major +	Minor +	Negligible
					Major +	Negligible	Negligible

Potential Activities	Cultural Resources			
	LANDSCAPES	STRUCTURES	COLLECTIONS	ARCHEOLOGY
Ensuring Organizational Effectiveness				
Develop New Maintenance Facility	Minor +; Negligible to Moderate -	Major +		Negligible to Moderate -; <i>Minor -</i>
Increase Energy Efficiency		Minor -		
Promote Car-Free Access	Moderate +			
Provide Housing, Establish Tenant Guidelines	Minor +	Negligible		

Natural Resources					Visitor Use	Park Ops	Socio-Econ
WILDLIFE	VEGETATION	WETLANDS	SOILS	TOPOGRAPHY			
Minor -	Minor -		Minor -	Negligible to Minor -	Major +	Major +; Minor -	Minor +
						Minor to Moderate +	
					Moderate to Major +	Moderate -	Minor +
					Minor +	Minor +	Negligible

Table 4-7: Summary of Impacts – No-Action Alternative

Please note that this table significantly condenses the alternatives and summarizes the potential impacts. For a full description of the alternatives, see Part Two. For a full description of the potential impacts, see the narrative in Part Four.

Potential Activities	Cultural Resources			
	LANDSCAPES	STRUCTURES	COLLECTIONS	ARCHEOLOGY
Preserving Park Resources				
Manage Cultural Landscapes as at Present (e.g. Views, Forest Plantations, Woodlands, Farm Fields, Designed Landscapes, and Historic Roads and Trails)	Major -	Moderate to Major -		
Providing for Public Use and Enjoyment				
Update Orientation Materials	Negligible			
Continue to Center Visitor Experience on Residences, but Open Coach House for Occasional Tour		Negligible	Negligible	
Continue Educational Programs as at Present				
Continue Trail Use / River Connections as at Present	Minor -			Negligible to Minor -
Ensuring Organizational Effectiveness				
Upgrade Bellefield	Moderate +	Minor to Moderate -, Moderate to Major +		Minor to Moderate -; <i>Minor -</i>
Implement Target Organization with Existing Funding Sources	Minor +	Minor +	Minor +	

Legend

Positive Impacts: +

Negative Impacts: -

Short-term impacts indicated in *italic*

Cell is blank if no impact is expected

Natural Resources					Visitor Use	Park Ops	Socio-Econ
WILDLIFE	VEGETATION	WETLANDS	SOILS	TOPOGRAPHY			
Negligible to Minor +	Negligible to Minor +	Negligible	Minor -		Major -	Negligible	Negligible
					Minor +	Negligible	Negligible to Minor +
					Negligible; Minor +	Negligible	Negligible to Minor +
					Negligible	Negligible	Negligible to Minor +
Minor -	Minor -		Minor -		Negligible	Minor -	Negligible to Minor +
Negligible			Negligible	Negligible	Minor +	Minor	Negligible to Minor +
Minor +	Minor +	Minor +			Minor +	Minor - and Minor +	Negligible to Minor +

Table 4–8: Summary of Impacts – Action Alternative One

Action Alternative One

Please note that this table significantly condenses the alternatives and summarizes the potential impacts.

For a full description of the alternatives, see Part Two.

For a full description of the potential impacts, see the narrative in Part Four.

Potential Activities	Cultural Resources			
	LANDSCAPES	STRUCTURES	COLLECTIONS	ARCHEOLOGY
Preserving Park Resources				
Restore Cultural Landscapes (e.g. Views, Forest Plantations, Woodlands, Farm Fields, Designed Landscapes, and Historic Roads and Trails including Extension of RFL to Top Cottage)	Major +	Moderate to Major +		Negligible to Moderate –; Minor –
Providing for Public Use and Enjoyment				
Update Orientation Materials and Present Roosevelt Sites as Single Entity, with Wallace Center as Starting Point for Tours	Minor +			Minor to Moderate –
Improve Public Access to Landscapes and Outbuildings, Including Restored Vanderbilt Coach House	Moderate +; Minor –	Moderate +; Moderate to Major +; Minor –	Minor –	
Enhance Children’s Programs	Minor to Moderate +	Minor to Moderate +	Minor to Moderate +	
Modify Outbuildings for Teaching Space		Minor to Moderate –; Moderate to Major +		
Encourage Authorized Trail Use	Minor +			Negligible
Ensuring Organizational Effectiveness				
Upgrade Bellefield	Moderate +	Minor to Moderate –; Moderate to Major +		Minor to Moderate –; Minor –
Seek Increases in Staff and Volunteer Participation through Enhanced Partnerships	Moderate +	Moderate +	Moderate +	

Legend

Positive Impacts: +

Negative Impacts: -

Short-term impacts indicated in *italic*

Cell is blank if no impact is expected

Natural Resources					Visitor Use	Park Ops	Socio-Econ
WILDLIFE	VEGETATION	WETLANDS	SOILS	TOPOGRAPHY			
Negligible; Minor +; Minor -	Negligible; Minor -		Negligible; Minor +; Minor -	Moderate -	Major +	Major -	Minor +
					Moderate +; Minor -; Moderate +; Moderate -	Minor +	Minor +
Negligible	Negligible				Major +	Moderate -	Minor +
Minor to Moderate +	Minor to Moderate +	Minor to Moderate +			Major +	Moderate -	Minor +
							Minor +
Minor +	Minor +		Minor +		Moderate +	Minor -	Minor +
Negligible			Negligible	Negligible	Minor +	Minor +	Minor +
Moderate +	Moderate +	Moderate +			Moderate +	Major -; Major +; Moderate +	Minor +

Table 4–9: Summary of Impacts – Action Alternative Two

Please note that this table significantly condenses the alternatives and summarizes the potential impacts.

For a full description of the alternatives, see Part Two.

For a full description of the potential impacts, see the narrative in Part Four.

Potential Activities	Cultural Resources			
	LANDSCAPES	STRUCTURES	COLLECTIONS	ARCHEOLOGY
Preserving Park Resources				
Rehabilitate Cultural Landscapes (e.g. Views, Forest Plantations, Woodlands, Farm Fields, Designed Landscapes, and Historic Roads and Trails) with Allowances for Contemporary Practices	Major +	Moderate to Major +		Negligible to Moderate -; <i>Minor -</i>
Protect Red House with NPS Participation	Negligible to Minor +	Negligible to Minor +		
Providing for Public Use and Enjoyment				
Update Orientation Materials	Negligible			
Introduce More and Diverse Programs	Moderate +; Minor -	Moderate +; Minor -	Moderate +	Moderate +
Adaptively Reuse Vanderbilt Coach House for Compatible Public Use		Moderate -; Moderate to Major +		Negligible to Moderate -; <i>Minor -</i>
Expand Educational Programming, including the Establishment of a Learning Center	Minor to Moderate +	Minor to Moderate +	Minor to Moderate +	
Modify Outbuildings for Learning Center		Moderate -; Moderate to Major +		
Actively Promote Recreational Use of Trails and Create New Trail Segments	Minor +; Minor -			Negligible to Moderate -; <i>Minor -</i>
Enhance River Connections	Negligible to Minor -			
Ensuring Organizational Effectiveness				
Upgrade Bellefield and Make it More Available for Partner and Public Use	Moderate +; Minor -; Minor +	Minor to Moderate -, Moderate to Major +		Negligible to Minor -; <i>Minor -</i>
Augment Revenue Sources; Seek Increases in Staff as well as Extensive Partner Support	Major +	Major +	Major +	

Legend

Positive Impacts: +

Negative Impacts: -

Short-term impacts indicated in *italic*

Cell is blank if no impact is expected

Natural Resources					Visitor Use	Park Ops	Socio-Econ
WILDLIFE	VEGETATION	WETLANDS	SOILS	TOPOGRAPHY			
Negligible; Minor +; Minor -	Negligible; Minor +; Minor -		Negligible; <i>Minor +</i>		Major +	Major -	Minor +
					Negligible to Minor +	Negligible	Minor +
					Moderate +		Minor +
Negligible	Negligible				Major +	Moderate -; Major +	Minor +
					Major +	Minor +	Minor +
Minor to Moderate +	Minor to Moderate +	Minor to Moderate +			Major +	Minor -	Minor +
						Major +	Minor +
Minor +; Minor -	Minor +; Minor -	Minor +			Moderate +	Moderate -	Minor +
	Negligible		Negligible		Moderate +	Minor -	Minor +
Negligible			Negligible	Negligible	Minor +	Minor +; Minor -	Minor +
Moderate +	Moderate +	Moderate +			Major +	Minor- and Major +; <i>Moderate -</i>	Minor +