

ALTERNATIVE B: COMPLETE CONIFER BARRIER REPLACEMENT (PREFERRED)

Alternative B includes the removal and replacement of all of the trees in the project area located along U.S. Route 9. The project area was defined based on the condition and hazard ratings presented in the 2010 tree inventory. The project area specifically excludes the southernmost portion of the barrier to avoid impacting the slope leading to the pond in this area. Additionally, specimen type trees, such as those located along the circular entrance drive in front of the mansion, would continue to be managed as specimen trees and have been excluded from the project area.

A total of approximately 462 trees would be removed from the project area. These trees would be harvested and either utilized as lumber or chipped and removed from the site. Stumps would be cut flush with existing grade. The removal action is anticipated to take place during the winter months when the ground is frozen. After harvest, Eastern white pine (*Pinus strobus*), Western hemlock (*Tsuga heterophylla*) or a compatible species based on arborist and landscape architect recommendations would be planted in the following spring or fall. The planting stock could range from bare root stock up to two inch stems and would be designed to replicate the original pine barrier planted by Vanderbilt in the early 1900s.

The density of the trees that would result from implementation of the preferred alternative is shown on Figure 9. Renderings following Figure 9 demonstrate how the barrier might look immediately after the implementation of the preferred alternative, and then ten years after implementation. The renderings illustrate that ten years after the removal and replacement action, the visual qualities of the barrier are nearly restored. The westward viewing renderings show the results of using different plant stock sizes.

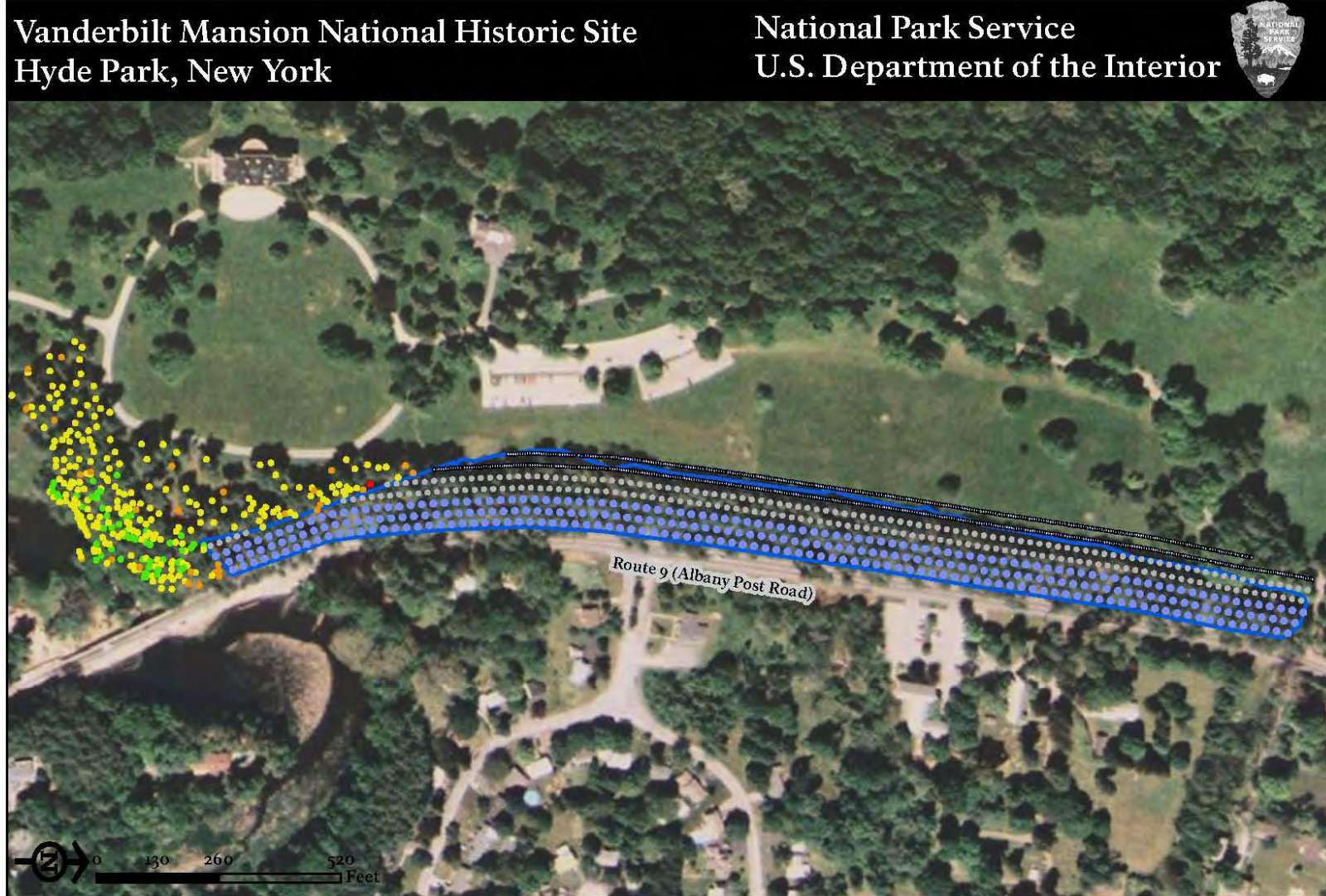


Figure 9: Alternative B

Complete Conifer Barrier Replacement (Preferred)



Vanderbilt Mansion National Historic Site
Hyde Park, New York



Vanderbilt Mansion National Historic Site
Hyde Park, New York



Vanderbilt Mansion National Historic Site
Hyde Park, New York



Vanderbilt Mansion National Historic Site
Hyde Park, New York



ALTERNATIVE C: PARTIAL CONIFER BARRIER REPLACEMENT

Under Alternative C only those trees within the project area that are in the severe or high risk categories would be removed and replaced. This would include the removal of 312 pine and hemlock trees, representing 67 percent of the 462 trees in the project area. Trees would be replanted where feasible. The density of the trees that would result from implementation of alternative C is shown on Figure 10. Renderings following Figure 10 demonstrate how the barrier might look shortly after the implementation of Alternative C.

CONSTRUCTION STAGING

The staging area for this project would be the lawn area to the west of the conifer barrier.

MITIGATION MEASURES INCORPORATED INTO THE ALTERNATIVES

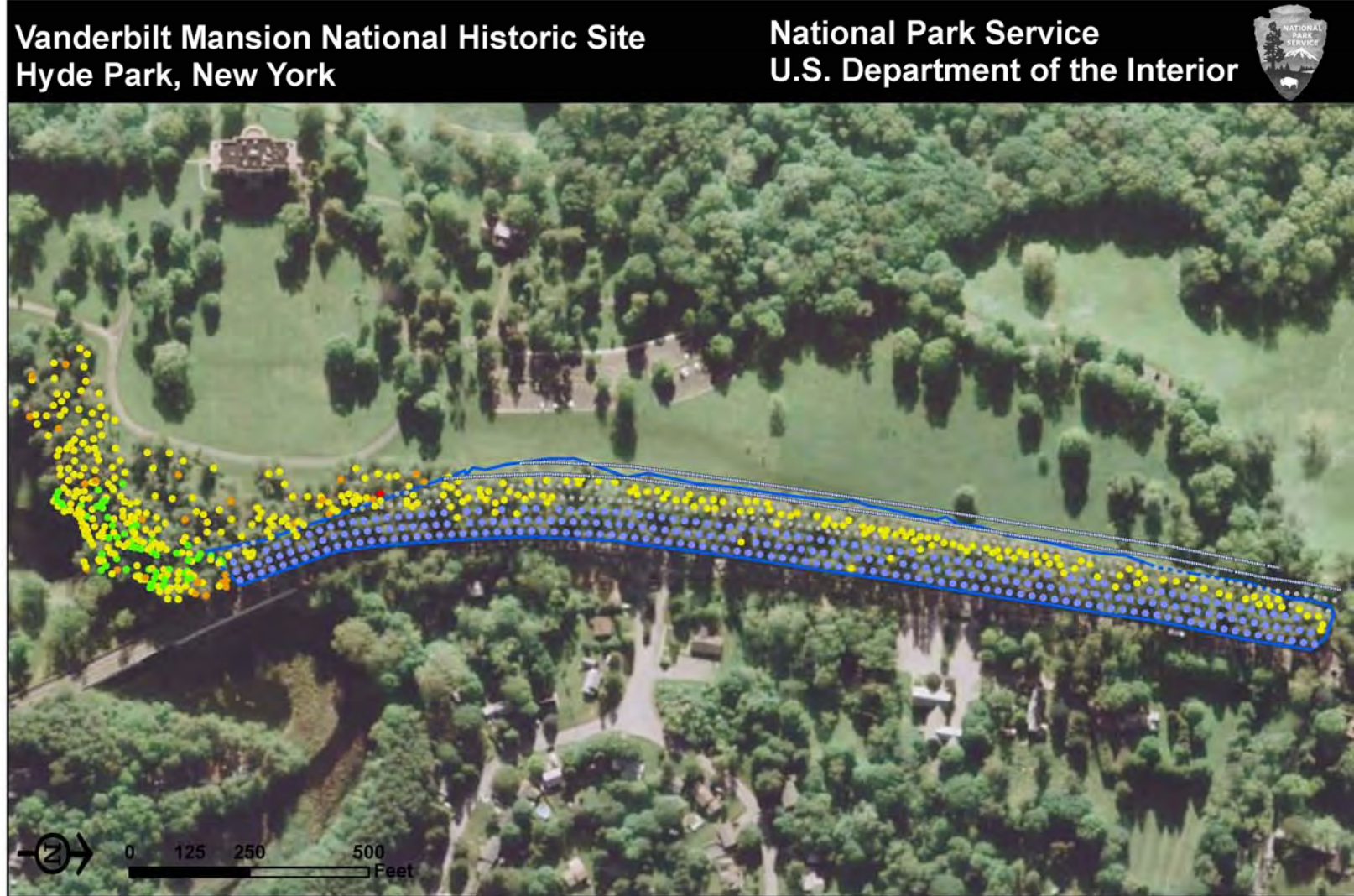
The NPS places a strong emphasis on avoiding, minimizing, and mitigating potentially adverse environmental impacts. To help ensure the protection of natural and cultural resources and the quality of the visitor experience, the following protective measures would be implemented as part of the selected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

General Mitigation Measures:

- The NPS project manager would ensure that the project remains confined within the parameters established in the compliance documents and that the mitigation measures are properly implemented.

Vegetation Mitigation Measures:

- Under the action alternatives, the areas would be replanted with species specified in the removal and replacement plans and specifications (NPS, 2011b).
- Prior to being off-loaded in the Park, all equipment would be inspected by approved NPS staff to prevent possible means of non-native plant/plant seed introduction.
- Invasive vegetation would not be introduced. Disturbed areas would be monitored for up to three years following conifer replacement to identify growth of noxious weeds or non-native vegetation. Treatment of non-native vegetation would be completed in accordance with NPS-13, Integrated Pest Management Guidelines. This mitigation measure would only be implemented under the action alternatives.
- Ensure that all protection measures are clearly stated in construction specifications, and that workers would be instructed to avoid conducting activities beyond the construction zone, as defined by the construction zone fencing;
- Minimize trimming and removing vegetation to accommodate construction equipment ingress and egress; and
- Avoid collision of equipment with trees and other vegetation. Place protective fencing around tree trunks in close proximity to construction activities to minimize potential adverse impacts to bark or other tree attributes resulting from collision.



Vanderbilt Mansion National Historic Site
Hyde Park, New York



Alternative C

View Eastward- Removal of high- & severe-risk trees;
Replanted White Pine in available spaces

Vanderbilt Mansion National Historic Site
Hyde Park, New York



Alternative C

View Westward- Removal of high- & severe-risk trees;
Replanted White Pine in available spaces

Soil Mitigation Measures:

- An appropriate Sediment and Erosion Control Plan would be implemented.
- Sustainable best management practices would be utilized to control stormwater runoff.
- A New York Stormwater Management Program General Permit for construction related stormwater discharges would be obtained under the action alternatives.
- A Storm Water Pollution Prevention Plan (SWPPP) would be implemented, as required under the New York Stormwater General Permit, under the action alternatives

Cultural Resource Mitigation Measures:

- Sites designated GP-8 (the Tennis Court) and GP-9 (the Road to “Torham”) in the Phase Ib Archaeological Survey report (Fugate 2010) would be avoided by the project.
- Sites designated GP-1 (the North Gatehouse built by David Hosack) and GP-2 (a historic artifact scatter near the Vanderbilt-era Subway) would undergo Phase II testing to assess their potential to yield information important in understanding changing uses and occupations at the Park.
- If the Phase II testing indicates that GP-1 and/or GP-2 are significant sites, they would either be avoided or additional measures would be put in place to mitigate the adverse impacts of the project.
- If previously unknown archaeological resources are discovered during the project, an NPS archeologist would be contacted immediately. All work in the immediate vicinity of the discovery would be halted until the resources could be identified and documented and an appropriate mitigation strategy developed, if necessary. The significance of these finds would be assessed in consultation with the necessary organizations as dictated in 36 CFR 800.13, *Post Review Discoveries*.
- In the unlikely event that human remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered during the project, provisions outlined in the Native American Graves Protection and Repatriation Act of 1990 (25 USC 3002) would be followed. All human remains, funerary objects, sacred objects, or objects of cultural patrimony would be left in place until the culturally affiliated tribe(s) can be consulted and an appropriate mitigation or recovery strategy developed between the affiliated tribes, SHPO, and the NPS. Inadvertent discovery of non-Native American human remains would be respectfully treated according to the relevant state and federal laws governing such remains.

Public Health and Safety Mitigation Measures:

- Work zones outside of the existing disturbed area would be identified and fenced with construction fencing or some similar material prior to any project activity. The fencing would define the work zone and confine activity to the minimum area required for the project.
- All protection measures would be clearly stated in the construction specifications and workers would be instructed to avoid conducting activities beyond the work zone, as defined by the construction zone fencing. This includes necessary temporary structures such as erosion control fencing.

ALTERNATIVES CONSIDERED BUT DISMISSED

Council of Environmental Quality (CEQ) regulations for implementing NEPA require that Federal agencies explore and objectively evaluate all reasonable alternatives to the preferred alternative, and to briefly discuss the rationale for eliminating any alternatives that were not considered in detail. This section describes those alternatives that were eliminated from further study and documents the rationale for their elimination.

During the course of internal scoping, several alternatives were considered, but were deemed to be unreasonable and were not carried forward for analysis in this EA. Justification for eliminating these options from further analysis was based on the following factors:

- Technical or economic infeasibility.
- Inability to meet project objectives or resolve need.
- Duplication with other, less environmentally damaging or less expensive alternatives.
- Conflict with an up-to-date and valid park plan, statement of purpose and significance, or other policy, such that a major change in the plan or policy would be needed to implement.
- Too great an environmental impact.

REMOVAL OF THE PINE BARRIER IN STAGES

This alternative would include the removal and replacement of trees in stages. The removal and replacement of trees under this alternative would occur over a period of consecutive years. Trees could be removed and replaced from the easternmost portion of the boundary along U.S. Route 9, working west towards the property, or they could be removed in compartments from north to south. While this option would eventually reduce the number of severe and high risk trees within the barrier, unacceptable risks from the remaining severe and high risk trees would occur until all phases of the project could be completed. In addition, this alternative fails to account for the damage to residual trees, edge effects, and the poor survival of replanted trees that would occur. This alternative would result in higher mobilization costs due to the phased removal. Since this alternative does not meet the purpose and need of the project and duplicates a less expensive alternative, Alternative D has been dismissed from analysis in this EA.

ENVIRONMENTALLY PREFERRED ALTERNATIVE

In accordance with DO-12, the NPS is required to identify the environmentally preferred alternative in its NEPA documents. The Council on Environmental Quality defines the environmentally preferred alternative as the alternative that would promote the national environmental policy as expressed in Section 101 of NEPA. In their Forty Most Asked Questions, Council on Environmental Quality further clarified the identification of the environmentally preferred alternative, stating that: “Ordinarily, this means the alternative that causes the least damage to the biological and physical environment; it also means the alternative which best protects, preserves, and enhances historic, cultural, and natural resources” (CEQ, NEPA’s 40 Most Asked Questions).

After completing the environmental analysis, the NPS determined that Alternative B – the preferred alternative, is the environmentally preferred alternative in this EA because it best meets the definition established by the U.S. Council on Environmental Quality. This alternative would provide improved visitor experience and park operations by addressing the deteriorated pine barrier. The Preferred Alternative provides the most improvement in public safety and best protects and enhances the cultural resources in the area. In addition, the preferred alternative:

- offers a long term sustainable solution for preservation of the park’s significant resources and provides continued public use and park enjoyment for future generations and;
- assures a safe and aesthetically pleasing environment with a variety of individual choices without degradation of natural or cultural resources.

Table 1 compares how well each of the proposed alternatives meets the purpose and need of the project. The Environmental Consequences chapter describes the impacts on each impact topic under each of the alternatives. These impacts are summarized in Table 2.

ALTERNATIVES COMPARISON

The table provided below compares and contrasts the alternatives, including the degree to which each alternative accomplishes the purpose or fulfills the need identified in the purpose and need section.

Table 1: Comparative Summary of Alternatives

Alternative A-No Action	Alternative B-Complete Barrier Replacement (Preferred Alternative)	Alternative C – Partial Barrier Replacement
Under the no action alternative, the NPS would continue to operate and manage the Vanderbilt Mansion National Historic Site under the current conditions. Impacts to visitor use and experience, public health and safety and cultural landscapes would continue due to the continuing tree fall hazards and the inadequacy of the pine barrier to maintain the privacy of the estate.	The Preferred Alternative includes the complete removal and replacement of approximately 462 pine and hemlock trees located within the conifer barrier located along Route 9. After harvest, Eastern white pine (<i>Pinus strobus</i>), Western hemlock (<i>Tsuga heterophylla</i>) or compatible species based on arborist and landscape architect recommendations would be planted.	Under Alternative C only those trees within the project area that are in the severe or high risk categories would be removed and replaced. This represents 67 percent of the 462 trees in the project area. While there would be 150 conifers remaining after the removal action, there are concerns about the stability of trees that would remain, and the survivability of replanted trees.
Meet Project Needs?		
This alternative fails to address the need for improving public health and safety and restoring the cultural landscape, which would negatively impact visitor use and experience, public health and safety, and cultural landscapes.	This alternative meets the project purpose and need by providing the needed conifer barrier replacement. This alternative would have a positive impact on visitor use and experience, public health and safety and cultural landscapes by reducing the tree fall hazard and restoring the designed landscape in the area.	This alternative meets the immediate need to improve public health and safety with the removal of the highest risk trees. However, this alternative does not address the concerns about the stability of trees that would remain, and the survivability of replanted trees, which would cause a continuing safety concern. This alternative would have a positive impact on visitor use and experience, and public health and safety by reducing the tree fall hazard. This alternative fails to restore the cultural landscape. Therefore this alternative does not fully meet the purpose and need identified for the project.

SUMMARY OF ENVIRONMENTAL CONSEQUENCES

A summary of potential environmental impacts for each of the alternatives is presented in Table 2 below.

Table 2: Summary of Environmental Consequences

Impact Topic	Alternative A-No Action	Alternative B-Complete Conifer Barrier Replacement (Preferred Alternative)	Alternative C - Partial Conifer Barrier Replacement
Vegetation	Implementation of the no action alternative would result in long term minor adverse impacts to vegetation. There would be minor adverse cumulative impacts to existing vegetation.	Implementation of Alternative B would result in short term moderate adverse and long term beneficial impacts to vegetation due to the removal and replacement of 6.75 acres of trees. Cumulative impacts to vegetation would be long term, minor to moderate adverse and long term beneficial.	Implementation of Alternative C would result in long term moderate adverse and long term beneficial impacts to vegetation within the project area due to the removal of 67 percent of the trees in the project area, and the replacement with similar species. Cumulative impacts would be long term, minor to moderate adverse and long term beneficial.
Cultural Landscapes	There would be moderate long term adverse impacts to the cultural landscapes under the no action alternative. Cumulative impacts would be long term, moderate, adverse and long term beneficial. Because the continued degradation of the cultural landscape would impede the attainment of the park's desired future condition for cultural resources as identified in the General Management Plan, the implementation of the no action alternative would result in impairment of the VAMA park resources or values	Impacts to the cultural landscape as a result of the Preferred Alternative would be short term, minor and adverse. The proposed action includes the replanting of similar species to attain a barrier effect consistent with the original intent of this designed landscape feature. These actions would not diminish or detract from the overall integrity of the landscape and would result in overall long term beneficial impacts on the cultural landscape. The cumulative impacts of past, present, and reasonably foreseeable future projects, in combination with the Preferred Alternative would result in long and short term, minor, adverse and long term beneficial impacts.	Impacts to the cultural landscape as a result of alternative C would be long term, minor to moderate and adverse. The proposed action includes the removal of 312 trees and the replanting of similar species to attain a barrier effect somewhat consistent with the original intent of this designed landscape feature. However, the 150 mature trees that are allowed to remain can reasonably be expected to fail, requiring their removal at some future date. Alternative C does not include plans to replace these trees and the barrier effect will be diminished. The cumulative impacts of past, present, and reasonably foreseeable future projects, in combination with alternative C would result in long term, minor to moderate, adverse and long term beneficial impacts.

Table 2: Summary of Environmental Consequences, continued

Impact Topic	Alternative A-No Action	Alternative B-Complete Conifer Barrier Replacement (Preferred Alternative)	Alternative C - Partial Conifer Barrier Replacement
Archeological Resources	The No Action alternative has the potential to have localized negligible to minor, long term, and adverse impacts on archeological sites. The cumulative impacts of past, present, and reasonably foreseeable future actions, combined with the No Action Alternative, would have adverse site-specific negligible to minor, short and long term cumulative impacts on archeological resources.	The Preferred Alternative has the potential to have localized negligible to minor, short term adverse impacts on archeological sites. The cumulative impacts of past, present, and reasonably foreseeable future actions, combined with the Preferred Alternative, would have short term adverse site-specific negligible to minor cumulative impacts on archeological resources.	Alternative C has the potential to have localized negligible to minor, long term, and adverse impacts on archeological sites. The cumulative impacts of past, present, and reasonably foreseeable future actions, combined with Alternative C, would have adverse site-specific negligible to minor short and long term cumulative impacts on archeological resources.
Visitor Use and Experience	The no action alternative would have a long term moderate adverse impact on visitor use and experience based on the importance of the quality of aesthetic views for a positive visitor experience. Cumulative impacts would be short and long term minor adverse; and long term beneficial.	The Preferred Alternative would have a short term minor adverse and long term beneficial impact on visitor use and experience based the short term impacts during construction and on the importance of the quality of aesthetic views for a positive visitor experience. Cumulative impacts would be short and long term, minor adverse and long term beneficial.	The implementation of Alternative C would have long term moderate adverse impacts on visitor use and experience based on the importance of the quality of aesthetic views and the interpretation of the historic landscape features of a park for a positive visitor experience. Cumulative impacts would be short and long term, minor to moderate adverse impacts and long term beneficial.
Human Health and Safety	The no action alternative would result in a major, adverse long term impact on public health and safety due to the continuing safety concerns associated with the risk for tree falls. Cumulative impacts would be long term, major, adverse, and long term beneficial.	The Preferred Alternative would have beneficial long term impacts on public health and safety by removing all of the trees in the project area and replacing them with a healthy stand of trees. Cumulative impacts would be beneficial and long term.	The implementation of Alternative C would have beneficial long term impacts on public health and safety by removing trees with the highest hazard ratings. Since trees of significant age with defects would remain in the project area, adverse moderate long term impacts on public health and safety would occur. Cumulative impacts would be long term, beneficial and moderate adverse and long term.

CHAPTER 3: AFFECTED ENVIRONMENT

This chapter of the EA describes existing environmental conditions in the areas potentially affected by the alternatives evaluated. The impact analysis is presented in the Environmental Consequences section of this EA.

VEGETATION

The vegetation at Vanderbilt Mansion National Historic Site is a diverse mix of native and cultivated plants, including dense woodlands, open meadows, lawns, specimen trees, and formal gardens. The patterns of vegetation have remained remarkably stable throughout the history of the site, defining its historic character and articulating the principles that guided its design.

Prompted by concerns for public safety, the NPS conducted an existing conditions inventory in 2006. In that inventory, the stand of trees that comprised the conifer barrier was divided into 8 separate compartments. The 2006 inventory and report provide an assessment of the stand's condition at that time, noting that there were increasing gaps in the barrier effect due to tree mortality and the loss of lower tree limbs. The report also indicated the need to have a certified arborist assess the individual trees.

The recent tree inventory completed in July 2010 provides additional details about the stand's current condition and provides additional information that is useful in assessing options for its future. During the July 2010 inventory, trees were individually examined, identified, measured, and recorded by an ISA Certified Arborist and an ISA Board Certified Master Arborist.

As documented in the 2010 inventory, the 11-acre conifer barrier population is currently comprised of 771 trees distributed among 16 genera and 21 species. Table 3 illustrates that two species, both conifers, account for 94.94 percent of the tree population. Eastern white pine (*Pinus strobus*) accounts for 59.53 percent of the stand, while Eastern hemlock (*Tsuga canadensis*) comprises 35.41 percent. Figure 11 shows the eight compartments and the trees documented in each during the 2010 investigation.

Table 3: Species Composition of the 11 Acre Conifer Barrier

Scientific Name	Common Name	Number	Percentage
<i>Pinus strobus</i>	Eastern white pine	459	59.53
<i>Tsuga canadensis</i>	Eastern hemlock	273	35.41
	hardwoods (14 species)	30	3.89
<i>Picea pungens</i>	Colorado spruce	5	0.65
<i>Picea abies</i>	Norway spruce	2	0.26
<i>Abies concolor</i>	white fir	1	0.13
<i>Chamaecyparis</i> spp.	falsecypress spp.	1	0.13
Totals		771	100.00

Compartments 1-7 are entirely comprised of Eastern white pine and Eastern hemlock. Compartment 8 contains the remaining species mix that is distributed among 4 other coniferous species and 14 species of hardwoods. With the exception of Eastern white pine and Eastern hemlock, no species accounts for more than 1 percent of the total tree population. There were no rare or unusual hardwood species present. The existing conditions plan report indicates that while the conifer barrier appears from a distance to be a “natural stand” of conifers, it functions biologically as a managed landscape in Compartments 1-7. Compartment 8 has become “naturalized” through the growth of many hardwoods and the lack of mowing on the steeper slopes. In fact, this compartment contains the greatest diversity of species.

As shown in Figure 11, the project area includes only 6.75 acres of the 11-acre barrier. This smaller area contains a total of 462 trees, with approximately 55 percent Eastern white pine and 45 percent Eastern hemlock. The project area contains 312 trees with high or severe risk ratings, indicating declining tree health.

ARCHEOLOGICAL RESOURCES

An archeological survey undertaken by Gray & Pape, Inc. in 2010 resulted in the confirmation of 6 previously identified cultural elements (a prehistoric/historic artifact scatter, the Stone Wall, the Tennis Court, the Road to “Torham,” the North Exit Gate, and the Subway), and the identification of 6 new archaeological sites (Fugate 2010). The Stone Wall, Tennis Court, and Subway are landscape features associated with the Vanderbilt estate. “Torham” is a mansion which previously stood on what is now the northern portion of the Vanderbilt estate. Portions of the Tennis Court (GP-8) and the Road to “Torham” (GP-9) lie within the project area but would be avoided by the project.

All of the newly identified sites date to the historic period. Two sites (GP-1 and GP-2) are large in area and have substantial subsurface components. GP-1 represents the remains of the North Gatehouse built by David Hosack between 1828 and 1835. It was removed by the Vanderbilts in 1906. Site integrity and research potential are considered very good. GP-2 consists of a scatter of artifacts dating to the period after 1840 and a layer of fill soils that may be associated with the construction of the Subway. Site GP-2 appears to hold potential for intact cultural deposits and the potential to answer significant research questions. Both sites were recommended for avoidance or further testing.

Site GP-3 was identified during a previous survey as a site with prehistoric and historic components. The historic component may represent a razed structure. Site GP-4 is a small nineteenth century historic artifact scatter with structural artifacts. Sites GP-5 and GP-7 are also small disperse nineteenth century historic artifact scatters limited to the upper soil stratum. Site GP-6 is a nineteenth century isolated find with no additional information potential. No additional work was recommended for these sites.



CULTURAL LANDSCAPES

Cultural landscapes reflect the relationship between people and their place in, and use of, the natural landscape. These landscapes are the manifestation of the interaction between humans and the land, both in how humans alter or otherwise affect the natural environment and landforms over time, and how landforms and the natural environment influence the evolution of human settlement patterns, land use and the built environment (NPS, 2006b).

The Vanderbilt Mansion National Historic Site preserves the western half of the Vanderbilt estate, including the mansion, formal gardens, service buildings, entrance gates, riverfront and river views. While historic evidence of the barrier planting is limited to archival photographs, the NPS believes that the conifer barrier was planted as a screen to increase the privacy of the estate. As reported in the Cultural Landscape Report, the screen was planted in three successive phases, the earliest along the road in approximately 1898 and the next in 1906. These two phases were white pines planted in regularly spaced rows. The third phase of planting was of Canadian hemlocks around 1937. The three age classes of trees are shown on photographs 3 and 4.

The designed historic landscape of the Vanderbilt Mansion National Historic Site is that of an estate or plantation ground. According to the analysis of significance discussed in the Cultural Landscape Report, the landscape of the VAMA appears to meet Criterion C of the National Register because it embodies the distinctive characteristics of a type and period of American landscape architecture, because it possesses high artistic value, and because it is the work of a recognized master. The landscape of VAMA is thus considered significant as a nationally important cultural resource in its own right (NPS, 1992b).



Photograph 3: A 1940 photograph looking toward Albany Post Road that shows “young hemlocks, youthful pines and middle-aged pines.”



Photograph 4: View of the north field in 1940 showing the lawn and the conifer barrier to the right. The three distinct age classes of the conifers are shown.

VISITOR USE AND EXPERIENCE

The Roosevelt-Vanderbilt National Historic Sites provide opportunities for commemoration and appreciation of the lives of the influential Americans formerly residing there. Visitors to VAMA can take in views of the Hudson River, stroll through the formal gardens, walk historic carriage trails through the Romantic-era landscape, picnic at the Overlook, or access the Hudson River at Bard Rock. The grounds are open to the public from dawn to dusk and offer opportunities for enjoyment of the setting and landscape, which is in keeping with the historic use of the property.

The NPS offers ranger-led tours of the Vanderbilt mansion, which sell out during peak season and on holiday weekends. Information about park resources, events, operating hours, fees and links to park partners are provided on the NPS website. The Pavilion at VAMA houses a visitor center, park offices, a museum shop and a gallery for temporary exhibitions. In 2007, estimated visitation was 412,270, with the majority of the visitors in the months of August and October.

Scenic resources are an integral part of the visitor use and experience at VAMA. The park contains extensive scenic resources, including one of the most outstanding picturesque views of the Hudson River remaining today. Enhancing the scenic views on the property was a focus for

Vanderbilt when he acquired the property, and he implemented a wide variety of landscape changes with this intended purpose. As discussed in the purpose and need chapter, historical information indicates that Vanderbilt likely planted the conifer barrier as a screen to block views in and out of the property and increase the sense of privacy of the estate (NPS, 2009a).

During the 2010 Existing Conditions Report, the condition of the trees within the overall barrier were assessed. The report documented that tree conditions within the 11-acre conifer barrier were fair to poor. There were 760 trees (98.57 percent of the inventoried tree population) reported to be in “fair” condition or worse. The poor condition ratings are generally due to visible signs of decline and stress including, but not limited to, decay, dead limbs, sparse branching, or poor structure, which degrades the scenic value of the existing barrier (as shown in photograph 5). The conifer barrier has large areas where the absence of lower limbs has created areas where virtually no barrier effect is present.



Photograph 5: Many of the conifers within the barrier have very thin canopies and defective limbs.

PUBLIC HEALTH AND SAFETY

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

U.S. Route 9 and the park roadways provide access for emergency services, NPS resource management, maintenance personnel, park visitors and members of the community. While no incidents of visitor or motorist injuries from tree falls in the barrier have been reported, U.S. Route 9 was blocked once due to a barrier tree fall. The NPS has removed approximately 200 hazard trees in recent years.

As discussed previously, the conifer barrier contains trees that are declining and exhibiting poor health. As shown in Table 4, 312 pine and hemlock were assigned a high or severe level of risk utilizing a risk rating assessment protocol that is based on the USDA Forest Service Community Tree Risk Rating System. This represents 67.53 percent of the inventoried trees in the project area. (NPS, 2010a). The risk ratings of the trees within the project area are summarized in Table 4, and shown graphically on Figure 11. Trees with high to severe risk ratings have defects that

cannot be cost effectively or practically treated and these defects indicate that a tree is failing, is in immediate danger of failing, or has already partially failed.

Table 4: Risk Ratings for Trees in Project Area

Risk Rating	Eastern White Pine (# of trees)	Eastern Hemlock (# of trees)	Total (# of trees)	Percent of Population
Low	2	1	2	0.43%
Moderate	38	110	148	32.03%
High	207	92	299	64.73%
Severe	9	4	13	2.81%
Total	256	206	462	
Percent of Population	55.41	44.59		100

CHAPTER 4 ENVIRONMENTAL CONSEQUENCES

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

GENERAL METHODOLOGY FOR ANALYZING IMPACTS

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

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

These elements are described in the following sections.

GENERAL ANALYSIS METHODS

The analysis of impacts follows CEQ guidelines and Director's Order 12 procedures (NPS 2001) and is based on the underlying goal of providing for long term protection and conservation of cultural landscapes at the park. This analysis incorporates the best available scientific literature applicable to the region and setting, the species being evaluated, and the actions being considered in the alternatives.

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

Analysis Period – The analysis period is approximately ten years.

Geographic Area Evaluated for Impacts (Area of Analysis) - The geographic study area (or area of analysis) for the U.S. Route 9 Conifer Barrier Replacement includes the 6.75 acre area defined and depicted in Chapter 1, Figure 2. The area of analysis may extend beyond the park's

boundaries for some cumulative impact assessments. If the specific area of analysis goes beyond the park or study area boundary, it is described at the beginning of each topic discussion.

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

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

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

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

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

Intensity: Because definitions of impact intensity (negligible, minor, moderate, and major) vary by impact topic, intensity definitions are provided separately for each impact topic analyzed. Intensity levels are not assigned to beneficial impacts.

CUMULATIVE IMPACTS ANALYSIS METHOD

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

Cumulative impacts were determined by combining the impacts of the alternative being considered with other past, present, and reasonably foreseeable future actions. Therefore, it was necessary to identify other ongoing or reasonably foreseeable future projects and plans at VAMA and, if applicable, the surrounding area.

The geographic scope for this analysis includes elements generally within or near VAMA boundaries, while the temporal scope includes projects within a range of approximately 10 years. Given this, Table 5 summarizes the actions that could affect the various resources at the park that are being evaluated in this EA.

Table 5: Projects Contributing to the Cumulative Effects

Project/Action	Potentially Affected Resources	Status
Rehab The Historic Vanderbilt Albany Post Road Wall	Cultural resources, visitor use and experience	Future
Reinstate Foundation Plantings at Mansion	Cultural resources, visitor use and experience, vegetation	Future
Rehab Vanderbilt Gardener's Cottage Electrical Generating System	Cultural resources	Future
Reinstate Rose Garden Surround Shrub Plantings	Cultural resources, visitor use and experience, vegetation	Future
Restore South Meadow to Historic Footprint	Cultural resources, visitor use and experience, vegetation	In Progress
Repair Italian Garden Pathways	Cultural resources, visitor use and experience, vegetation	Future
Restore Vista from Vanderbilt Overlook	Cultural resources, visitor use and experience, vegetation	Future
Restore Hudson River Vista From Pavilion	Cultural resources, visitor use and experience, vegetation	Future
Rehabilitate Redbud-Dogwood Grove	Cultural resources, visitor use and experience, vegetation	Future
Replace Water System	Cultural resources, visitor use and experience, vegetation	Future
Various structure improvements and repairs	Cultural resources, visitor use and experience,	Past and Future
Various roadway repaving projects	Visitor use and experience	Past and Future
Replace Existing Cherry Trees in Perennial Garden	Cultural resources, visitor use and experience, vegetation	Past
Emergency Repair - Leaking water main	Visitor use and experience, human health and safety	Past
U.S. Route 9 Hazard Tree Removals	Cultural resources, visitor use and experience, human health and safety	Past

VEGETATION

METHODOLOGY AND ASSUMPTIONS

Available information on vegetation and vegetative communities occurring within the project area was compiled and reviewed. Predictions about short and long term project impacts on vegetation were based on proposed actions.

STUDY AREA

The study area for this impact area is the approximately 11 acre project area.

IMPACT INTENSITY DEFINITIONS

The definitions of intensity levels and duration for this specific impact topic are as follows:

- Negligible: Some individual native plants would be affected, but there would be no effect on native species populations.
- Minor: Some individual native plants and a small portion of that species population would be impacted. Mitigation would be required and would likely be successful at attenuating the impacts.
- Moderate: A sizeable segment of the species population over a relatively large area would be impacted. Mitigation would be required and would likely be successful at attenuating the impacts.
- Major: A considerable effect on native plant populations, including species of special concern would be impacted. A large area could be affected within and outside the park boundaries. Mitigation would be required but the success of these measures would not be guaranteed.
- Short Term Duration: Impacts persist less than three years.
- Long Term Duration: Impacts would persist beyond three years.

IMPACTS OF NO ACTION ALTERNATIVE

Analysis - Under this alternative, the stand would continue its recent trend of decline. Only trees that fall or die would be considered for removal. The vegetation within the project area is part of a designed landscape and no locally rare species are present. No trees would be replaced as part of the no action alternative. When they occur, the removals would be a minor negative long term impact on the vegetation in the project area.

Cumulative Impacts - The previous hazard tree removals were a minor negative long term impact on the vegetation within the project area. The future repair of the masonry wall adjacent to U.S. Route 9 could have long term minor adverse impacts on trees near the roadway due to the potential for tree or tree root damage. The combined effects of the no action alternative along with the cumulative impacts from the past and future foreseeable projects would result in long term, minor adverse impacts to vegetation.

Conclusion - Implementation of the no action alternative would result in long term minor adverse impacts to vegetation. There would be minor adverse cumulative impacts to existing vegetation.

IMPACTS OF ALTERNATIVE B

Analysis - Under Alternative B, approximately 462 conifers within the 6.75 acre project area would be removed and replaced. The vegetation within the project area is part of a designed landscape and no locally rare species are present.

Although mitigation measures would be implemented, removal, breakage, or root damage from project staging could result in impacts to vegetation immediately outside of the removal area footprint. Mitigation measures would be implemented during the work to minimize the potential adverse impacts to vegetation. Such mitigation measures may include but are not limited to the following:

- Ensure that all protection measures are clearly stated in contract specifications, and that workers would be instructed to avoid conducting activities beyond the construction zone, as defined by the work zone fencing;
- Minimize trimming and removing vegetation to accommodate construction equipment ingress and egress; and
- Avoid collision of equipment with trees and other vegetation. Place protective fencing around tree trunks in close proximity to project activities to minimize potential adverse effects to bark or other tree attributes resulting from collision.

Considering that all conifers removed from the project area would be replaced with a greater number of similar species of trees, the implementation of Alternative B would result in short term, moderate adverse impacts to vegetation within the 6.75 acre area due to the removal and replacement of 462 trees. Since the replanted species would be replacing a stand with declining health, long term impacts would be beneficial.

Cumulative Impacts - The previous hazard tree removals were a minor long term adverse impact on the vegetation. The future repair of the masonry wall adjacent to U.S. Route 9 could have long term minor adverse impacts on trees near the wall due to the potential for tree or tree root damage. The combined effects of Alternative B along with the cumulative impacts from the past and future foreseeable projects would result in long term, minor to moderate adverse and long term beneficial impacts to vegetation.

Conclusion - Implementation of Alternative B would result in short term moderate adverse and long term beneficial impacts to vegetation due to the removal and replacement of 6.75 acres of trees. Cumulative impacts to vegetation would be long term, minor to moderate adverse and long term beneficial.

IMPACTS OF ALTERNATIVE C

Analysis - Under Alternative C, the removal and replacement of all severe and high risk trees would occur, which would include a total of 312 tree removals (approximately 67 percent). The vegetation within the project area is part of a designed landscape and no locally rare species are present. Similar to Alternative B, mitigation measures would be implemented to prevent impacts to trees outside of the removal area. The impacts to vegetation would be identical to the preferred alternative, since residual damage and windthrow and edge effects would be expected to eventually cause tree failure for the remaining 150 conifers. The vegetation in the project area would eventually be replaced with similar species. The resulting impacts would be moderate, adverse and long term and long term beneficial.

Cumulative Impacts The previous hazard tree removals were a minor long term adverse impact on the vegetation. The future repair of the masonry wall adjacent to U.S. Route 9 could have long term minor adverse impacts on trees near the wall due to the potential for tree or tree root damage. The combined effects of alternative B along with the cumulative impacts from the past and future foreseeable projects would result in long term, minor to moderate adverse and long term beneficial impacts to vegetation.

Conclusion - Implementation of Alternative C would result in long term moderate adverse and long term beneficial impacts to vegetation within the project area due to the removal of 67 percent of the trees in the project area, and the replacement with similar species. Cumulative impacts would be long term, minor to moderate adverse and long term beneficial.

CULTURAL RESOURCES

Cultural resources are non-renewable resources and adverse effects generally consume, diminish, or destroy the original historic materials or form, resulting in a loss in the integrity of the resource that can never be recovered. The NPS guidance for evaluating impacts (*Director's Order #12: Conservation Planning, Environmental Impact Analysis, and Decision Making*) (NPS 2001) requires that impact assessment be scientific, accurate, and quantified to the extent possible. For cultural resources, it is seldom possible to measure impacts in quantifiable terms; therefore impact analysis must rely heavily on the professional judgment of resource experts. This section discusses the impacts to both cultural landscapes and archeological resources.

CULTURAL LANDSCAPES

METHODOLOGY AND ASSUMPTIONS

For the assessment of potential impacts to cultural landscapes, the principal sources reviewed were the Cultural Landscape Report and Cultural Landscape Treatment Plan.

STUDY AREA

The study area, or area of potential effect (APE) includes an area approximately 2953 feet long by an average width of 147 feet. It also includes a staging area approximately 180 feet long by 98 feet wide and a temporary access road 314 feet long and approximately 20 feet wide.

IMPACT INTENSITY DEFINITIONS

Cultural landscapes are the result of the long interaction between people and the land, the influence of human beliefs and actions over time on the natural landscape. Shaped through time by historical land-use and management practices, as well as politics and property laws, levels of technology, and economic conditions, cultural landscapes provide a living record of an area's past, a visual chronicle of its history. The dynamic nature of modern human life, however, contributes to the continual reshaping of cultural landscapes, making them good sources of information about specific times and places, but at the same time rendering their long term preservation a challenge.

The definitions of intensity levels and duration for this specific impact topic are as follows:

- Negligible: Impact(s) is at the lowest levels of detection with neither adverse nor beneficial consequences. The determination of effect for Section 106 would be “*no adverse effect.*”
- Minor: Adverse impact - alteration of a pattern(s) or feature(s) of the landscape would not diminish the overall integrity of the landscape. The determination of effect for Section 106 would be “*no adverse effect.*”
- Moderate: Adverse impact - alteration of a pattern(s) or feature(s) of the landscape would diminish the overall integrity of the landscape. The determination of effect for Section 106 would be “*adverse effect.*” A memorandum of agreement is executed

among the NPS and applicable state or tribal historic preservation officer and, if necessary, the Advisory Council on Historic Preservation in accordance with 36 CFR 800.6(b). Measures identified in the MOA to minimize or mitigate adverse impacts would reduce the intensity of impact under NEPA from moderate to minor.

- Major: Adverse impact - alteration of a pattern(s) or feature(s) of the landscape would diminish the overall integrity of the landscape. The determination of effect for Section 106 would be “*adverse effect*.” Measures to minimize or mitigate adverse impacts cannot be agreed upon and the NPS and applicable state or tribal historic preservation officer and/or Advisory Council are unable to negotiate and execute a memorandum of agreement in accordance with 36 CFR 800.6(b).
- Short Term Duration: Occurs only during the implementation of the alternative.
- Long Term Duration: Occurs after the implementation of the alternative.

IMPACTS OF ALTERNATIVE A – NO ACTION

Analysis – As discussed in the Affected Environment chapter of this EA, the designed historic landscape of the VAMA meets Criterion C of the National Register because it embodies the distinctive characteristics of a type and period of American landscape architecture, because it possesses high artistic value, and because it is the work of a recognized master (NPS, 1992b). Under the no action alternative, there would be no changes in current park management of the conifer barrier. As a result, deterioration of the conifer barrier would occur, along with the potential to damage the ashlar masonry walls, which are contributing elements and character-defining features of the cultural landscape at VAMA. Ultimately, the no action alternative would result in the complete deterioration of the barrier and degradation of the overall cultural landscape at VAMA, resulting in long term moderate adverse impacts.

Cumulative Impacts - Past, present, and reasonably foreseeable future projects with the potential to affect cultural landscapes include the prior hazard tree removals, the restoration of the masonry wall along U.S. Route 9, the infrastructure improvements and the various other landscape restoration projects planned. The prior hazard tree removals had a long term negative impact on the cultural landscape of the pine barrier. The masonry wall and landscape restoration projects would be implemented in a way that would have a beneficial impact on the overall cultural landscape of VAMA. The future infrastructure projects would have the potential to disturb the designed landscape by changing the contributing features or overall character of the landscape. However, the projects would be designed to minimize impacts to cultural landscapes. As a result, assuming appropriate mitigation measures are enacted for any negative cumulative projects, impacts to the cultural landscapes would be minor and long term. These long term minor adverse impacts and long term beneficial impacts in combination with the long term moderate adverse impacts of the no action alternative would result in long term, moderate, adverse and long term beneficial cumulative impacts to the VAMA cultural landscape.

Conclusion - There would be moderate long term adverse impacts to the cultural landscapes under the no action alternative. Cumulative impacts would be long term, moderate, adverse and long term beneficial.

Because the continued degradation of the cultural landscape would impede the attainment of the park's desired future condition for cultural resources as identified in the General Management Plan, the implementation of the no action alternative would result in impairment of the VAMA park resources or values.

IMPACTS OF ALTERNATIVE B – PREFERRED ALTERNATIVE

Analysis – In his guide for the planning, treatment and management of historic landscapes, Birnbaum indicates that one of the treatment options for a historic landscape can include the in-kind replacement of declining vegetation (Birnbaum, 1994). Under the preferred alternative, the removal and the in-kind replacement of approximately 462 trees present within the conifer barrier would occur. The replanting would be designed to mimic the original pine barrier planted in the early 1900s.

During the removal action, the historic integrity of the barrier would be impacted. This impact to the cultural landscape would be short term, minor and adverse. However, after the in-kind replacements occur, the barrier would appear similar to the original design and would serve the purpose for which it was originally intended. The removals would also prevent the risk of damage to the historic ashlar masonry walls. Therefore, the result of the removal and replacement activities would be a long term beneficial impact on the cultural landscape.

Cumulative Impacts - Past, present, and reasonably foreseeable future projects with the potential to affect the cultural landscapes include the prior hazard tree removals, the restoration of the masonry wall along U.S. Route 9, the infrastructure improvements and the various other landscape restoration projects planned. The prior hazard tree removals had a long term negative impact on the pine barrier contributing feature. The masonry wall and landscape restoration projects would be implemented in a way that would have a beneficial impact on the overall cultural landscape of VAMA. The future infrastructure projects would have the potential to disturb the designed historic landscape by changing the contributing features or overall character of the cultural landscapes. However, the projects would be designed to minimize impacts to cultural landscapes. As a result, assuming appropriate mitigation measures are enacted for any negative cumulative projects, impacts to cultural landscapes would be minor and long term. These long term minor adverse impacts and long term beneficial impacts in combination with the short term minor adverse impacts and long term beneficial impacts of the Preferred Alternative would result in long and short term, minor, adverse and long term beneficial cumulative impacts to the VAMA cultural landscape

Conclusion - Impacts to the cultural landscape as a result of the Preferred Alternative would be short term, minor and adverse. The proposed action includes the replanting of similar species to attain a barrier effect consistent with the original intent of this designed landscape feature.

These actions would not diminish or detract from the overall integrity of the landscape and would result in overall long term beneficial impacts on the cultural landscape. The cumulative impacts of past, present, and reasonably foreseeable future projects, in combination with the Preferred Alternative would result in long and short term, minor, adverse and long term beneficial impacts.

IMPACTS OF ALTERNATIVE C

Analysis –Under Alternative C, the removal and the in-kind replacement of approximately 312 trees in the severe or high risk categories would occur. Trees would be replanted where feasible. Approximately 150 of the existing trees would remain, although residual damage, windthrow and edge effects would be expected to eventually result in the decline of these remaining conifers, ultimately requiring their removal at some future date.

During the removal and replacement activities for the 312 trees, the historic integrity of the barrier would be impacted. This impact to the cultural landscapes would be long term, minor and adverse. The removal of the severe and high risk trees would reduce the risk of damage to the historic ashlar masonry walls. The completion of the removal and replacement of the 312 trees would be a long term beneficial impact on the cultural landscape. However, the 150 remaining trees may also reasonably expected to fail over time, resulting in long term, moderate adverse impacts to the cultural landscape.

Cumulative Impacts - Past, present, and reasonably foreseeable future projects with the potential to affect cultural landscapes include the prior hazard tree removals, the restoration of the masonry wall along U.S. Route 9, the infrastructure improvements and the various other landscape restoration projects planned. The prior hazard tree removals had a long term negative impact on the pine barrier potential contributing feature. The masonry wall and landscape restoration projects would be implemented in a way that would have a beneficial impact on the overall cultural landscape of VAMA. The future infrastructure projects would have the potential to disturb the designed historic landscape by changing the contributing features or overall character of the cultural landscapes. However, the projects would be designed to minimize impacts to cultural landscapes. As a result, assuming appropriate mitigation measures are enacted for any negative cumulative projects, impacts to cultural landscapes would be minor and long term. These long term minor adverse impacts and long term beneficial impacts in combination with the long term minor to moderate adverse impacts and long term beneficial impacts of Alternative C would result in long term, minor to moderate, adverse and long term beneficial cumulative impacts to the VAMA cultural landscape

Conclusion - Impacts to the cultural landscape as a result of alternative C would be long term, minor to moderate and adverse. The proposed action includes the removal of 312 trees and the replanting of similar species to attain a barrier effect somewhat consistent with the original intent of this designed landscape feature. However, the 150 mature trees that are allowed to remain can reasonably be expected to fail, requiring their removal at some future date. Alternative C does not include plans to replace these trees and the barrier effect will be

diminished. The cumulative impacts of past, present, and reasonably foreseeable future projects, in combination with alternative C would result in long term, minor to moderate, adverse and long term beneficial impacts.

ARCHEOLOGICAL RESOURCES

METHODOLOGY AND ASSUMPTIONS

For the assessment of potential impacts to archeological resources, the archeology report (Fugate 2010) was referenced.

STUDY AREA

The study area, or area of potential effect (APE) includes an area approximately 2953 feet long by an average width of 147 feet. It also includes a staging area approximately 180 feet long by 98 feet wide and a temporary access road 314 feet long and approximately 20 feet wide.

IMPACT INTENSITY DEFINITIONS

The intensity of an impact upon an archeological site depends on the site's potential to yield important information, as well as the extent of physical disturbance or degradation. Impacts to archeological sites can be beneficial or adverse, direct or indirect, short- or long term. Any change in the physical characteristics of an archeological site is irreparable and considered adverse and permanent. Adverse impacts most often occur as a result of earthmoving activities, erosion, soil compaction, unauthorized surface collection, or vandalism. Beneficial impacts to archeological sites occur when an ongoing impact which would otherwise continue to degrade the site, is reduced or stopped.

The definitions of intensity levels and duration for this specific impact topic are as follows:

- **Negligible:** The impact on archeological sites would be barely perceptible and not measureable; it would usually be restricted to sites with low data potential.
- **Minor:** The impact on archeological sites is measurable or perceptible, but it is also slight and localized within a small area of a site. This level would be restricted to sites with low to moderate data potential. The impact would not affect character defining features of a site and would not have a permanent effect on a site's integrity.
- **Moderate:** The impact on archeological sites is measurable and perceptible and would generally involve sites with moderate to high data potential. The impact changes one or more character defining feature of a site but does not diminish integrity to the point that the site would lose its National Register eligibility. A memorandum of agreement is executed among the NPS and applicable state or tribal historic preservation officer and, if necessary, the Advisory Council on Historic Preservation in accordance with 36 CFR 800.6(b). Measures identified in the MOA to minimize or mitigate adverse impacts would reduce the intensity of impact under NEPA from moderate to minor. Data recovery can be an acceptable form of mitigation.

- **Major:** The impact on archeological sites is substantial, noticeable, and permanent and would usually involve sites with high data potential. The impact changes one or more character defining features of the archeological site, and diminishes the integrity of the resource to the extent that it is no longer eligible for listing in the National Register. Measures to minimize or mitigate adverse impacts cannot be agreed upon and the NPS and applicable state or tribal historic preservation officer and/or Advisory Council are unable to negotiate and execute a memorandum of agreement in accordance with 36 CFR 800.6(b).
- **Short Term Duration:** Occurs only during the implementation of the alternative.
- **Long Term Duration:** Occurs after the implementation of the alternative.

IMPACTS OF ALTERNATIVE A – NO ACTION

Analysis – Under this alternative, the stand would continue its recent trend of decline. Only trees that fall or die would be considered for removal. The use of vehicles to gain access to the hazard trees is likely to disturb soils and compact subsurface deposits. Tree falls and root removal will result in substantial ground disturbance with the potential to impact archeological deposits. If the mitigation measures described in Chapter 2 are implemented, these activities would have localized negligible to minor, long term, and adverse impacts on the archeological resources.

Cumulative Impacts – Past, present, and reasonably foreseeable future projects with the potential to affect archeological resources include the prior hazard tree removals, the restoration of the masonry wall along U.S. Route 9, the infrastructure improvements and the various other landscape restoration projects planned. These projects pose the potential for ground disturbance; however, assuming appropriate mitigation measures are enacted for the present and reasonably foreseeable future projects, the impacts to archeological sites would be short and long term, negligible to minor, and adverse.

Conclusion – The No Action alternative has the potential to have localized negligible to minor, long term, and adverse impacts on archeological sites. The cumulative impacts of past, present, and reasonably foreseeable future actions, combined with the No Action Alternative, would have adverse site-specific negligible to minor, short and long term cumulative impacts on archeological resources.

IMPACTS OF ALTERNATIVE B – PREFERRED ALTERNATIVE

Analysis – Under the Preferred Alternative, the removal and the in-kind replacement of approximately 462 trees present within the conifer barrier would occur. The replanting would be designed to mimic the original pine barrier planted in the early 1900s. The use of vehicles within the project area is likely to disturb soils and compact subsurface deposits. Root removal will result in substantial ground disturbance with the potential to impact archeological deposits. According to the mitigation measures outlined in Chapter 2, NPS would avoid impacts to Sites GP-8 (the Tennis Court) and GP-9 (the Road to “Torham”) during this project. Sites GP-1 and

GP-2 would undergo Phase II testing to further define boundaries and assess significance and integrity. If sites GP-1 and/or GP-2 are determined to be significant sites, they will either be avoided or additional measures will be put in place to mitigate the adverse impacts. The Preferred Alternative would have localized negligible to minor, short term adverse impacts on the archeological resources.

Cumulative Impacts – Past, present, and reasonably foreseeable future projects with the potential to affect archeological resources include the prior hazard tree removals, the restoration of the masonry wall along U.S. Route 9, the infrastructure improvements and the various other landscape restoration projects planned. These projects pose the potential for ground disturbance; however, assuming appropriate mitigation measures are enacted for the present and reasonably foreseeable future projects, the impacts to archeological sites would be short term, negligible to minor, and adverse.

Conclusion – The Preferred Alternative has the potential to have localized negligible to minor, short term adverse impacts on archeological sites. The cumulative impacts of past, present, and reasonably foreseeable future actions, combined with the Preferred Alternative, would have short term adverse site-specific negligible to minor cumulative impacts on archeological resources.

IMPACTS OF ALTERNATIVE C

Analysis – Under alternative C, the removal of approximately 312 trees in the severe or high risk categories would occur. Trees would be replanted where feasible. Approximately 150 of the existing trees would remain, although residual damage and windthrow and edge effects would be expected to eventually cause these remaining conifers to fail. The use of vehicles within the project area is likely to disturb soils and compact subsurface deposits. Tree fall and root removal will result in substantial ground disturbance with the potential to impact archeological deposits. NPS would avoid impacts to Sites GP-8 (the Tennis Court) and GP-9 (the Road to “Torham”) during this project. Sites GP-1 and GP-2 would undergo Phase II testing to further define boundaries and assess significance and integrity. If sites GP-1 and/or GP-2 are determined to be significant sites, they will either be avoided or additional measures will be put in place to mitigate the adverse impacts. Because Alternative C does not address the probable need to eventually remove the remaining 150 trees, the impact of this alternative would have a longer duration than that of Alternative B. Alternative C would have localized negligible to minor, long term, and adverse impacts on the archeological resources.

Cumulative Impacts – Past, present, and reasonably foreseeable future projects with the potential to affect archeological resources include the prior hazard tree removals, the restoration of the masonry wall along U.S. Route 9, the infrastructure improvements and the various other landscape restoration projects planned. These projects pose the potential for ground disturbance; however, assuming appropriate mitigation measures are enacted for the present and reasonably foreseeable future projects, the impacts to archeological sites would be short and long term, negligible to minor, and adverse.

Conclusion – Alternative C has the potential to have localized negligible to minor, long term, and adverse impacts on archeological sites. The cumulative impacts of past, present, and reasonably foreseeable future actions, combined with Alternative C, would have adverse site-specific negligible to minor short and long term cumulative impacts on archeological resources.

VISITOR USE AND EXPERIENCE

METHODOLOGY AND ASSUMPTIONS

Impacts to visitor use and experience were determined by considering the effect of the existing conditions and the proposed conifer barrier removal and replacement on the overall experience of those park visitors who utilize the area. Two aspects were considered: (1) the barrier effect for park visitors on VAMA property and (2) the barrier effect for motorists traveling to other ROVA parks and recreational sites.

STUDY AREA

The study area for visitor use and experience includes all ROVA parks and U.S. Route 9 which visitors would use to travel between them.

IMPACT INTENSITY DEFINITIONS

The definitions of intensity levels and duration for this specific impact topic are as follows:

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

Minor: Changes in visitor use and/or experience would be slight and detectable, but would not appreciably limit or enhance critical characteristics of the visitor experience. Visitor satisfaction would remain stable.

Moderate: Few critical characteristics of the desired visitor experience would change. The number of participants engaging in a specified activity would be altered. Some visitors who desire their continued use and enjoyment of the activity/visitor experience might be required to pursue their choices in other available local or regional areas. Visitor satisfaction would begin to decline.

Major: Multiple critical characteristics of the desired visitor experience would change and/or the number of participants engaging in an activity would be greatly reduced or increased. Visitors who desire their continued use and enjoyment of the activity/visitor experience would be required to pursue their choices in other available local or regional areas. Visitor satisfaction would markedly decline.

Short Term Duration: Occurs only during the implementation of the alternative.

Long Term Duration: Occurs after the implementation of the alternative.

IMPACTS OF ALTERNATIVE A – NO ACTION

Analysis - Under this alternative, the stand would continue its recent trend of decline. Only trees that fall or die would be considered for removal. The appearance and condition of the barrier would impact the visitor experience due to both the poor aesthetic appearance and the lack of privacy and tranquility provided on the park grounds. Visitors to the ROVA sites would

undoubtedly notice the deterioration of the appearance of the pine barrier and it could impact their overall experience at the parks. The lack of privacy and tranquility provided by the barrier could result in visitors not utilizing certain areas of the VAMA. These adverse impacts would be moderate and long term.

Cumulative Impacts - Past, present, and reasonably foreseeable future projects with the potential to impact visitor use and experience include the prior hazard tree removals, the restoration of the masonry wall along U.S. Route 9, the infrastructure improvements and the various other landscape restoration projects planned. The prior hazard tree removals had a long term minor adverse impact on aesthetic appearance of the pine barrier, due to the gaps in the forest in those areas. The masonry wall and landscape restoration projects would be expected to enhance the aesthetic resources and visitor use and experience, resulting in long term beneficial impacts. The future infrastructure projects would have the potential to have a short term minor impact on visitor use and experience during construction but have a resulting beneficial impact on aesthetic resources and visitor use and experience after construction.

These short and long term minor adverse impacts and long term beneficial impacts in combination with the long term moderate adverse impacts of the no action alternative would result in short and long term, minor, adverse and long term moderate adverse and long term beneficial cumulative impacts to visitor use and experience.

Conclusion - The no action alternative would have a long term moderate adverse impact on visitor use and experience based on the importance of the quality of aesthetic views for a positive visitor experience. Cumulative impacts would be short and long term minor adverse; and long term beneficial.

IMPACTS OF ALTERNATIVE B – PREFERRED ALTERNATIVE

Analysis - The Preferred Alternative would result in short term localized adverse impacts on the visual quality of the park due to the presence of construction equipment and materials. The NPS Management Policies require that visual intrusions from construction activities be kept to a minimum (NPS, 2006, Section 9.1.3.1). Therefore, to reduce these impacts, the proposed staging area for the action alternative would be the grassy area adjacent to the pine barrier that is not generally accessed by the public. In addition, removals would occur during the winter months, during which fewer visitors are using the park, and the replanting efforts would occur shortly thereafter. Therefore short term, minor negative impacts on visual resources and visitor use and experience would occur.

Visitor experience would also be adversely impacted by possible temporary roadway lane closures and by the temporary visual impacts to the pine barrier area. To minimize these impacts, construction activities would be limited to weekdays, during which the park experiences the fewest visitors. During construction, impacts would also result from the attendant human activity and noise associated with implementation of the preferred alternative. The intrusiveness of the construction activities on the visitor use and experience would be

minimized by confining activities to the fenced construction zone, and by requiring construction contractors to properly maintain construction equipment to minimize noise from their use. The resulting adverse impact on visitor use and experience would be short term and minor.

Post construction, the Preferred Alternative would improve the aesthetic appearance of the pine barrier and would be expected to enhance visitors' enjoyment of the park. The project would contribute to the evolution of the roadside and VAMA cultural landscape as preservation of the historic appearance would occur. The resulting impacts on aesthetic resources and visitor use and experience would be long term and beneficial.

Cumulative Impacts - Past, present, and reasonably foreseeable future projects with the potential to impact visitor use and experience include the prior hazard tree removals, the restoration of the masonry wall along U.S. Route 9, the infrastructure improvements and the various other landscape restoration projects planned. The prior hazard tree removals had a long term minor adverse impact on aesthetic appearance of the pine barrier, due to the gaps in the forest in those areas. The masonry wall and landscape restoration projects would be expected to enhance the aesthetic resources and visitor use and experience, resulting in long term beneficial impacts. The future infrastructure projects would have the potential to have a short term minor impact on visitor use and experience during construction but have a resulting beneficial impact on aesthetic resources and visitor use and experience after construction.

These short and long term minor adverse impacts and long term beneficial impacts in combination with the short term minor adverse and long term beneficial impacts of the Preferred Alternative would result in short and long term, minor adverse impacts and long term beneficial cumulative impacts to aesthetic resources and the overall visitor use and experience.

Conclusion – The Preferred Alternative would have a short term minor adverse and long term beneficial impact on visitor use and experience based the short term impacts during construction and on the importance of the quality of aesthetic views for a positive visitor experience. Cumulative impacts would be short and long term, minor adverse and long term beneficial.

IMPACTS OF ALTERNATIVE C

Analysis - Under Alternative C, the removal and the in-kind replacement of approximately 312 trees would occur, with removal and replacements of the remaining trees occurring as needed. The implementation of Alternative C would result in long term localized adverse impacts on the visual quality of the park due to the intermittent presence of construction equipment and materials over an unknown extended period of time. Similar to the mitigation measures that would be implemented under the Preferred Alternative, the NPS would attempt to keep visual intrusions from construction activities to a minimum.

While this alternative would replace some of the visually degraded trees, the characteristic age classes and original aesthetics of the barrier would not be restored, and the character of the area

would continue to change as additional trees decline and are replaced. Once the removal of the high and severe risk trees occurs, there would be a high likelihood of additional mature tree failures or decline related to windthrow (NPS, 2010a).

Since part of the experience in the park is tied to the interpretation of a historic landscape, preserved at a time when Vanderbilt resided at the residence, the consistent characteristic age classes of the original barrier are an important part of the overall visitor use and experience in the park. The implementation of Alternative C, as shown in the renderings in the alternatives chapter, would not provide the characteristic age classes in a continuous barrier, but would result in a patchwork of mature, declining trees and newly planted trees.

Therefore overall long term, moderate adverse impacts on visual resources and visitor use and experience would occur from implementation of Alternative C.

Cumulative Impacts - Past, present, and reasonably foreseeable future projects with the potential to impact visitor use and experience include the prior hazard tree removals, the restoration of the masonry wall along U.S. Route 9, the infrastructure improvements and the various other landscape restoration projects planned. The prior hazard tree removals had a long term minor adverse impact on aesthetic appearance of the pine barrier, due to the gaps in the forest in those areas. The masonry wall and landscape restoration projects would be expected to enhance the aesthetic resources and visitor use and experience, resulting in long term beneficial impacts. The future infrastructure projects would have the potential to have a short term minor impact on visitor use and experience during construction but have a resulting beneficial impact on aesthetic resources and visitor use and experience after construction.

These short and long term minor adverse impacts and long term beneficial impacts in combination with the long term moderate adverse of Alternative C would result in short and long term, minor to moderate adverse impacts and long term beneficial cumulative impacts to visitor use and experience.

Conclusion – The implementation of Alternative C would have long term moderate adverse impacts on visitor use and experience based on the importance of the quality of aesthetic views and the interpretation of the historic landscape features of a park for a positive visitor experience. Cumulative impacts would be short and long term, minor to moderate adverse impacts and long term beneficial.

PUBLIC HEALTH AND SAFETY

METHODOLOGY AND ASSUMPTIONS

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

IMPACT INTENSITY DEFINITIONS

The definitions of intensity levels and duration for this specific impact topic are as follows:

Negligible: Changes in public health and safety would be just at the level of detection.

Minor: Changes in public health and safety would be detectable, although the changes would be slight. Visitors and Park staff would be unaware of the impacts.

Moderate: Changes in public health and safety would be readily apparent. Visitors and Park staff would be aware of the impacts and would likely be able to express an opinion about the changes.

Major: Changes in public health and safety would be readily apparent and severely adverse. Visitors and Park staff would be aware of the impacts and would likely be able to express a strong opinion about the changes.

Short Term Duration: Occurs only during the implementation of the alternative.

Long Term Duration: Occurs after the implementation of the alternative.

IMPACTS OF ALTERNATIVE A – NO ACTION

Analysis – Under this alternative, the stand would continue its recent trend of decline. Only trees that fall or die would be considered for removal. The existing conditions report documents that the tree conditions in the overall conifer barrier are described as fair to poor. A total of 67 percent of the trees in the project area were assigned severe or high risk ratings. Trees with high to severe risk ratings have defects that cannot be cost effectively or practically treated and these defects indicate that a tree is failing, is in immediate danger of failing, or has already partially failed. If failure occurs, the tree or large tree limbs could fall, causing unacceptable levels of risk. As discussed in the purpose and need chapter of this EA, failing trees could fall on U.S. Route 9, damage power lines and expose the park staff and visitors to dangerous downed power lines. Together, these hazards create unacceptable risk to human safety. As discussed extensively in the purpose and need chapter, the hazard tree removal approach is not acceptable for the continuing management of the barrier by the NPS. The no action alternative would fail to provide a long term solution to the safety hazards of the aging conifer stand. These impacts would be major, adverse and long term.

Cumulative Impacts - The past hazard tree removals had a beneficial short term impact on public health and safety due to the removal of trees with the highest risk for tree fall. The future

replacement of waterlines in the park would be a long term beneficial impact on park public health and safety since the quality of the drinking water infrastructure within the park would be improved. The remaining proposed park projects are primarily related to restoring historic structures, features or cultural landscapes and would be expected to have no impact on public health and safety. The impacts from the no action alternative, along with the impacts of the projects identified in the cumulative impacts scenario, would result in long term, major, adverse cumulative impacts along with long term, beneficial cumulative impacts.

Conclusion - The no action alternative would result in a major, adverse long term impact on public health and safety due to the continuing safety concerns associated with the risk for tree falls. Cumulative impacts would be long term, major, adverse, and long term beneficial.

IMPACTS OF ALTERNATIVE B – PREFERRED ALTERNATIVE

Analysis - The Preferred Alternative would remove the aging stand of trees and replace it with a healthy young stand of conifers. During construction, appropriate lane closures and construction fencing to exclude the public from the construction area would be used to reduce impacts to public health and safety. By replacing the conifer stand, the impacts to public safety from falling limbs or trees would be reduced. This impact would be beneficial and long term.

Cumulative Impacts - The past hazard tree removals had a beneficial long term impact on public health and safety due to the removal of trees with the highest risk for tree fall onto the adjacent U.S. Route 9. The future replacement of waterlines in the park would be a long term beneficial impact on park public health and safety since the quality of the drinking water infrastructure within the park would be improved. The remaining proposed park projects are primarily related to restoring historic structures, features or cultural landscapes and would be expected to have no impact on public health and safety. The impacts from the Preferred Alternative, along with the impacts of the projects identified in the cumulative impacts scenario, would result in long term, beneficial cumulative impacts.

Conclusion - The Preferred Alternative would have beneficial long term impacts on public health and safety by removing all of the trees in the project area and replacing them with a healthy stand of trees. Cumulative impacts would be beneficial and long term.

IMPACTS OF ALTERNATIVE C

Analysis – Under Alternative C, the removal and the in-kind replacement of approximately 312 trees would occur, with removal and replacements of the remaining trees occurring as needed. Similar to the procedures that would be followed under the Preferred Alternative, during construction, appropriate lane closures and construction fencing to exclude the public from the construction area would be used to reduce impacts to public health and safety. By removing the highest risk trees, the impacts to public safety from falling limbs or trees would be reduced. This impact would be beneficial and long term.

However, since trees of significant age with defects would remain in the project area, it is likely that the remaining 150 trees would be characterized as high or severe hazard trees in the near future. This adverse impact on health and safety would be moderate and long term.

Cumulative Impacts - The past hazard tree removals had a beneficial long term impact on public health and safety due to the removal of trees with the highest risk for tree fall onto the adjacent U.S. Route 9. The future replacement of waterlines in the park would be a long term beneficial impact on park public health and safety since the quality of the drinking water infrastructure within the park would be improved. The remaining proposed park projects are primarily related to restoring historic structures, features or cultural landscapes and would be expected to have no impact on public health and safety. The impacts from Alternative C, along with the impacts of the projects identified in the cumulative impacts scenario, would result in long term, beneficial and long term moderate adverse cumulative impacts.

Conclusion – The implementation of Alternative C would have beneficial long term impacts on public health and safety by removing trees with the highest hazard ratings. Since trees of significant age with defects would remain in the project area, adverse moderate long term impacts on public health and safety would occur. Cumulative impacts would be long term, beneficial and moderate adverse and long term.

CONSULTATION AND COORDINATION

The National Park Service (NPS) places a high priority on public involvement in the National Environmental Policy Act (NEPA) process and on giving the public an opportunity to comment on proposed actions. As part of the NPS NEPA process, issues associated with the proposed action were identified during the internal scoping meeting held with NPS and have been communicated to other affected agencies and stakeholders.

PUBLIC SCOPING

In addition to internal and agency scoping, public scoping for this Environmental Assessment began on August 18, 2010 and concluded on September 30, 2010. A public meeting was held on August 19, 2010 at the park visitor center. A total of 32 individuals, including NPS participating personnel, were present for the open house type public information session. Notice of the public comment period was published in the Poughkeepsie Journal and Kingston Freeman on August 16, 2010. During the comment period, eight public comments were received.

In general, most commenters were against the removal and replacement of the trees in the project area. Many mentioned that they don't perceive any risk posed by the trees. Several asked for consideration of an alternative that would include the removal of only the most high risk trees.

A petition signed by approximately 340 individuals indicated that they oppose the removal of the trees, stating that the trees don't appear to pose a safety risk and that the visual barrier would not be restored for many years after the replanting.

Aware of the significant hazard posed by the trees and the desire to restore the historical context, two commenters agreed with the Preferred Alternative to remove and replace the trees within the project area.

Several commenters were concerned with the type of species that would be used for the replacements. Most were concerned with the potential impacts of woolly adelgid on the Eastern hemlock, and one commenter wanted a species other than Eastern white pine to be utilized.

Differing opinions were provided about the size of the replanting stock to be used. Some wanted the largest replanting stock possible while others indicated concern over cost and survivability for the larger conifers.

Copies of the public comments received are provided in Appendix B.

AGENCY CONSULTATION

Coordination with local and federal agencies and various interest groups was conducted during the NEPA process to identify issues and/or concerns related to the proposed actions.

National Historic Preservation Act, Section 106 - The NPS is conducting Section 106 consultation with the New York State Office of Parks, Recreation and Historic Preservation as part of this project. On September 28, 2009, VAMA sent a letter to the New York State Office of Parks, Recreation and Historic Preservation to solicit information on whether the archeological survey should be considered a component of the overall landscape restoration project. On February 9, 2010, the New York State Office of Parks, Recreation and Historic Preservation indicated that they have no concerns with addressing the archeological issues for the project independent from the remainder of the landscape restoration project.

State Endangered Species - On September 20, 2010, VAMA sent a letter to the New York State Department of Environmental Conservation New York Natural Heritage Program to begin consultation and coordination for state listed endangered or threatened species. On December 28, 2009, VAMA sent a letter to the New York State Department of Environmental Conservation to identify any potential permitting requirements for the project.

Endangered Species Act, Section 7 – On August 25, 2010, VAMA initiated consultation with the U.S. Fish and Wildlife Service (USFWS). USFWS provided a list of species that may be present within Dutchess County, New York. A copy of the EA will be submitted to the USFWS to complete the consultation.

Coastal Zone Management Act – On May 31, 2011, VAMA sent a Coastal Zone Consistency Determination letter to the New York Department of State Division of Coastal Resources.

LIST OF RECIPIENTS

Notice of this EA will be posted on PEPC. In addition, the NPS will notify the following organizations and agencies of its availability:

New York State Department of Environmental Conservation

New York State Department of State, Division of Coastal Resources

New York State Office of Parks, Recreation and Historic Preservation

U.S. Fish and Wildlife Service

Scenic Hudson

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Photographs

Cover Photograph – Chambers, George. *Photo V-926* (Park Photo Collection). March 1964. Roosevelt-Vanderbilt NHS Archives.

Photograph 1 – Taken by Dave Hayes, NPS, 2006.

Photograph 2 - Taken by Skip Kincaid, Davey Resource Group, July 12, 2010.

Photograph 3 - Arnold, Fred H. *Internal Memorandum to the NPS Regional Director*. July 27, 1940. Caption of photo reads “North of the tennis court looking toward the Albany Post Road, one is attracted by four stories of vegetation – grass, young hemlocks, youthful pines, and middle-aged pines.” Roosevelt-Vanderbilt NHS Archives.

Photograph 4 – View 2 north field. (Park Photo Collection). ca. 1940. Roosevelt-Vanderbilt NHS Archives.

Photograph 5 - Taken by Skip Kincaid, Davey Resource Group, July 12, 2010.

The photographs/renderings projecting the alternatives were prepared by the National Park Service Olmsted Center for Landscape Preservation and the Vanderbilt Mansion National Historic Site.

Appendix A



New York State Office of Parks, Recreation and Historic Preservation

Historic Preservation Field Services Bureau • Peebles Island, PO Box 189, Waterford, New York 12188-0189

518-237-8643

www.nysparks.com

David A. Paterson
Governor

Carol Ash
Commissioner

February 9, 2010

David Hayes
U. S. Department of Interior
4097 Albany Post road
Hyde Park, New York 12538

Re: NPS
Vanderbuilt Mansion NHS Conifer Barrier
Replacement
NY 9, Town of Hyde Park, Dutchess County
10PR00449

Dear Mr. Hayes:

Thank you for requesting the comments of the State Historic Preservation Office (SHPO). We have reviewed the project in accordance with Section 106 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/Cultural resources. They do not include potential environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the National Environmental Policy Act and/or the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8).

The SHPO has no objections with addressing the archeological issues within the Conifer Barrier Replacement independent from the remainder of the landscape restoration project given the level of effort that may be necessary for this landscape feature.

If further correspondence is required regarding this project, please be sure to refer to the OPRHP Project Review (PR) number noted above. If you have any questions, please call me at (518) 237-8643, extension 3288.

Sincerely,

Cynthia Blakemore
Historic Preservation Program Analyst

cc. William Griswold



IN REPLY REFER TO:

United States Department of the Interior

NATIONAL PARK SERVICE

Roosevelt-Vanderbilt National Historical Sites
4097 Albany Post Road
Hyde Park, New York 12538
Home of Franklin D. Roosevelt N.H.S.
Vanderbilt Mansion N.H.S.
Eleanor Roosevelt N.H.S.

H-2215 (ROVA)

December 28, 2009

Cynthia Blakemore
NYS Preservation Office
POB 189
Peebles Island
Waterford, NY 12188

Re: Vanderbilt Mansion NHS Conifer Barrier Replacement (Hyde Park, Dutchess, NY)

Dear Ms. Blakemore:

I hope you had a restful holiday. I am writing to brief you on a landscape restoration project that will require archeological testing, and to solicit initial guidance on how your office would like us to proceed.

The project entails the removal and replanting of approximately 1000 mature white pine and hemlock trees. Many of the trees are in poor condition and pose a safety hazard. Some trees are at risk of falling across Rt. 9, a major transportation route. The project area is about 13 acres in area. The Area of Potential Affects would include potential unknown archeological resources, historic structures, and cultural landscape. I have attached some project background materials for your information.

William Griswold from our Lowell office is preparing a scope of work for a Phase IA archeological survey and Phase IB evaluation. I am aware that for some projects, you would consider an archeological survey of this scope to be a separate standalone project apart from the overall project. At this stage I am requesting a determination as to whether we should consider the archeological survey a standalone project or a simply one component of the overall landscape restoration project.

I look forward to your response. You can reach me at the above address, by phone at (845) 229-1521, or e-mail at dave_hayes@nps.gov. Thank you.

Sincerely,

David J. Hayes
Natural Resource Program Manager

Cc: Henry VanBrookhoven
William Griswold



IN REPLY REFER TO:

United States Department of the Interior

NATIONAL PARK SERVICE
Roosevelt-Vanderbilt National Historical Sites
4097 Albany Post Road
Hyde Park, New York 12538
Home of Franklin D. Roosevelt N.H.S.
Vanderbilt Mansion N.H.S.
Eleanor Roosevelt N.H.S.

N-22(ROVA)

December 28, 2009

Margaret Duke
Regional Permit Administrator
New York State Department of Environmental Conservation
21 South Putt Corners Rd.
New Paltz, NY 12561-1620

Dear Ms. Duke:

I am writing to begin consultation and coordination regarding potential environmental impacts of a proposed National Park Service (NPS) landscape restoration project at Vanderbilt Mansion National Historic Site (VAMA) in Hyde Park, Dutchess County, NY. The purpose of this letter is to solicit your guidance on any and all permitting requirements.

PROJECT OVERVIEW & JUSTIFICATION

This project would remove and replace approximately 1000 pine and hemlock trees planted ca. 1906. They were originally intended to serve as a visual screen between the Vanderbilt estate and U.S. Highway 9. The stand is approximately 13 acres in area. Many of the trees are in poor condition and pose a safety hazard. Some trees are at risk of falling across Rt. 9, a major transportation route. The age and size of the trees has resulted in the loss of most of the lower limbs, which permits the highway to be visible from the estate. Thus it no longer serves as a visual barrier. The project will remove and replant trees to eliminate safety hazards and re-establish the visual characteristic desired. (See attached "Project Locator" map.)

PROJECT DESCRIPTION

All trees within the project area would be harvested and either utilized as lumber or chipped and removed from the site. Stumps would be cut flush with existing grade and not be chipped. It is anticipated that this operation would take place during the winter months when the ground is frozen. After harvest, Eastern white pine (*Pinus strobus*) and Eastern hemlock (*Tsuga canadensis*) would be planted in either the Spring or Fall months. The exact

size of the planting stock has not yet been determined, but could range from bare root stock up to 2 inch stems.

We are already in consultation with the NY State Historic Preservation Office regarding impacts to cultural resources. An archeological survey will be undertaken as part of the project compliance, and measures will be taken to protect any archeological resources.

A Stormwater Protection Plan will be developed and submitted for approval prior to any ground-disturbing activities.

DESCRIPTION OF IMPACTED AREA

The project area is 11 acres in size. It is bordered on the west and north by landscape tree over lawn, on the east by U.S. Route 9, and on the south by Crum Elbow Creek. The surrounding areas are generally residential with some light commercial and municipal use. Vanderbilt Mansion also abuts the CSX railroad on the west, with the Hudson River along the railroad property. See attached "Project Topography" map and other figures.

The northern 75% of the project area is generally level with mean slopes from zero to 8 percent. The southern 25% drops to Crum Elbow Creek, and has an average slope of 23 percent.

Since the southern portion of the project is adjacent to Crum Elbow Creek, special consideration must be given to protect water quality and riparian habitat. We would propose a 100-foot buffer zone from the creek, but this could be modified based on recommendations received from your office or the US Fish & Wildlife Service.

NATURAL CHARACTERISTICS

GEOLOGY

The bedrock geology of Vanderbilt Mansion NHS is mainly comprised of a variety of sandstone called "greywacke" and shale from Taconic Overthrust (Allochthonus) Sequence (Figure 4) and Austin Glen formation. The greywacke and shale includes Upper Early Medial Ordovician epoch from early Mohawkian Series in late Normanskillian stage. The Hudson River borders the extreme western section of these two units (Sechler et al. *after* Rickard and Fisher 1970).

The surficial geology of Vanderbilt Mansion NHS is mainly bedrock as the parent and underlying materials. The northern section of the park has lacustrine sand as the parent material and quartz sand as the underlying material. A small area of the park in the north and western sections contains lacustrine delta as the parent material with sand gravel as the underlying material (Sechler et al. *after* Cadwell and Dineen 1987).

SOILS

Soil types found within the project area are:

- Nassau-Cardigan Complex, Hilly, Very Rocky
- Hoosic Gravelly Loam, 25 to 45 Percent Slopes
- Hoosic Gravelly Loam, Nearly Level
- Hoosic-Urban Land Complex, Nearly Level

HYDROLOGY

(Results from NYSDEC “Environmental Resource Mapper”.)

1. There are no NYS-regulated wetlands within or in the vicinity of the project. The closest regulated wetland is approximately 1300 meters to the northeast.

2. There is one Class “C” stream (Crum Elbow Creek) adjacent to the project.

FEDERALLY-LISTED ANIMALS & PLANTS

(Results from NYSDEC “Environmental Resource Mapper”.)

1. There is an “old or potential record” for woodland agrimony (*Agrimonia rostellata*) in the vicinity of the project area from 1949. This species was not documented at VAMA during a vegetation inventory conducted there in 1998¹ or a vegetation mapping project conducted in 2009².

2. Two natural communities are listed by ER Mapper for this location. The Oak-Tulip tree forest was identified by Sechler et al. in 2009 and lies approximately 250 meters west of the project area. Separating the two is landscaped trees over turf, mowed lawn, a parking lot, and a paved road. The grade between the two sites precludes any impacts to this Oak-Tulip forest.

The other natural community listed is the Hudson River estuary, which lies at the mouth of Crum Elbow Creek approximately 1100 meter downstream to the southwest.

3. Based on the New York Natural Heritage Program’s “Nature Explorer” online tool, the following Federally Endangered, Threatened, or Candidate Species occur in the vicinity of the project. (The finest search category available for this tool is at the county level.)

Endangered:

Indiana bat	(<i>Myotis sodalis</i>)
Shortnose Sturgeon	(<i>Acipenser brevirostrum</i>)
Dwarf Wedgemussel	(<i>Alasmodonta heterodon</i>)

Threatened:

Bog Turtle	(<i>Glyptemys muhlenbergii</i>)
------------	-----------------------------------

Candidate:

New England Cottontail	(<i>Sylvilagus transitionalis</i>)
Atlantic Sturgeon	(<i>Acipenser oxyrinchus</i>)

¹ Glenn, Steven D. Vanderbilt Mansion National Historic Site Vascular Plant Survey 1995-1997. Unpublished report to National Park Service. 1998

² Sechler, Frederick C., Gregory J. Edinger, Timothy G. Howard, John J. Schmid, Elizabeth Eastman, Ery Largay, and Lesley A. Sneddon. 2009. Vegetation Classification and Mapping of Vegetation at Roosevelt-Vanderbilt National Historic Sites, New York. Draft Technical Report NPS/NER/NRTR--XXXX/XXX. National Park Service. Northeast Region, Philadelphia, PA.

A herpetological survey³ conducted in 1991 did not document Bog turtle, and habitat which would support bog turtle does not exist at VAMA.

Ichthyological surveys were conducted in 1995 and 2001^{4,5}. While neither sturgeon species was detected during these surveys, sturgeon habitat was not sampled since it does not occur within park boundaries. Presence of both sturgeon species has been documented in the Hudson River in the vicinity of the project.

Mammal surveys^{6,7} conducted in 1991 and 2007 did not detect New England Cottontail. No surveys for bat species have been conducted, although one is scheduled for June 2010. Should the project area be considered as potential roosting or foraging habitat for Indiana bat, timing of the timber harvest in winter months could be used to mitigate potential impacts.

STATE-LISTED ANIMALS & PLANTS

Based on the New York Natural Heritage Program's "Nature Explorer" online tool, the following State Endangered or Threatened Species occur in the vicinity of the project. (The finest search category available for this tool is at the county level.)

ENDANGERED

Northern Cricket Frog	(<i>Acris crepitans</i>)
Golden Eagle	(<i>Aquila chrysaetos</i>)
Peregrine Falcon	(<i>Falco peregrines</i>)
Shortnose Sturgeon	(<i>Acipenser brevirostrum</i>)
Indiana Bat	(<i>Myotis sodalis</i>)
Dwarf Wedgemussel	(<i>Alasmidonta heterodon</i>)
Bog Turtle	(<i>Glyptemys muhlenbergii</i>)

THREATENED

³ Klemens, M.W., R.P. Cook and D. J. Hayes. Herpetological Studies at Roosevelt Vanderbilt National Historic Sites and the Township of Hyde Park, New York, with emphasis on Blanding's Turtle (*Emydoidea blandingii*). 1992. Technical Report NPS/NAROSS/NRTR/92-08.

⁴ Fishes of the Roosevelt-Vanderbilt National Historic Sites, Hyde Park, New York. Schmidt, Robert E. 1995. Final Report to National Park Service.

⁵ Mather, M. E., A.J. Norris, M.P. Carey. March 2003. Freshwater Fish Inventory: Northeast Temperate Network, 1999-2001. Technical Report NPS/NER/NRTR—2005/16. National Park Service. Woodstock, VT.

⁶ Steadman, David W. Field Survey of Small Mammals, Roosevelt-Vanderbilt National Historic Sites, Hyde Park, New York. 1991. Biological Survey, New York State Museum, Albany, New York. Unpublished report to National Park Service.

⁷ Gilbert, A.T., O'Connell, A.F., Jr., Annand, E.M., Talancy, N.W., Sauer, J.R., and Nichols, J.D., 2008, An inventory of terrestrial mammals at National Parks in the Northeast Temperate Network and Sagamore Hill National Historic Site: U.S. Geological Survey Scientific Investigations Report 2007-5247, 158 p.

Fence Lizard	(<i>Sceloporus undulates</i>)
Timber Rattlesnake	(<i>Crotalus horridus</i>)
Blanding's Turtle	(<i>Emydoidea blandingii</i>)
Sedge Wren	(<i>Cistothorus platensis</i>)
Pied-billed Grebe	(<i>Podilymbus podiceps</i>)
Upland Sandpiper	(<i>Bartramia longicauda</i>)
Bald Eagle	(<i>Haliaeetus leucocephalus</i>)
Northern Harrier	(<i>Circus cyaneus</i>)
Least Bittern	(<i>Ixobrychus exilis</i>)
King Rail	(<i>Rallus elegans</i>)

Klemens et al. inventoried reptiles and amphibians at VAMA in 1991, and none of the listed species were detected. (Blanding's turtle was documented at the NPS-managed Eleanor Roosevelt NHS about 5 km to the southeast.)

Bird inventories and monitoring programs have been conducted on several occasions. The New York State Breeding Bird Atlas did not list any of the listed species in the survey block which contains the project area. A avian inventory⁸ in 2003 did not detect any listed species. An annual point count within forested habitat⁹ also has not documented any listed species.

See previous section on federally-listed species for discussion of shortnose sturgeon, dwarf wedgemussel and bog turtle.

PLANTS

Based on the New York Natural Heritage Program's "Nature Explorer" online tool, 106 species of State Endangered or Threatened Species occur in the vicinity of the project. (The finest search category available for this tool is at the county level.)

Of these 106 species, 6 have been reported (but not verified) at VAMA during a 1998 plant survey by the Brooklyn Botanic Garden:

fragrant flatsedge (*Cyperus odoratus*)
Reported in old fields 200 meters from project area

rough-stemmed goldenrod (*Solidago rugosa* var. *aspera*)
Reported in old fields 200 meters from project area

five-angled dodder (*Cuscuta pentagona*)
Reported from hemlock-hardwood forest 250 meters west of project area

Hill's Pondweed (*Potamogeton hillii* Morong)

⁸ Trocki, C., P. Paton. December 2003. Avian Surveys in Northeast Temperate Network. Technical Report NPS/NER/NRTR—2005/004. National Park Service. Woodstock, VT.

⁹ Faccio, S. 2007 Breeding Landbird Survey Summary, Roosevelt-Vanderbilt National Historic Sites. Unpublished report to national Park Service. Vermont Center for Ecotudies, Norwich, VT.

Reported from hemlock-hardwood forest 250 meters west of project area

violet bush-clover (*Lespedeza violacea*)

Reported from Bard Rock on the Hudson River 600 meters from project area

gypsy-wort (*Lycopus rubella*)

Reported from Bard Rock on the Hudson River 600 meters from project area

Based on the reports received and habitat preferences for these species, it is highly unlikely that they would be present in the project area.

Based on the above project description and attachments, please indicate which permits, if any, would be required by New York State. Should you have any questions, you can reach me at the address above, by phone at (845) 229-1521, or by e-mail at dave_hayes@nps.gov.

Thank you.

Sincerely,

David J. Hayes
Natural Resource Program Manager

attachments



IN REPLY REFER TO:

United States Department of the Interior

NATIONAL PARK SERVICE

Roosevelt-Vanderbilt National Historical Sites
4097 Albany Post Road
Hyde Park, New York 12538
Home of Franklin D. Roosevelt N.H.S.
Vanderbilt Mansion N.H.S.
Eleanor Roosevelt N.H.S.

L-7615(HOFR)

September 20, 2010

NYSDEC-DFWMR
NY Natural Heritage Program-Information Services
625 Broadway, 5th Floor
Albany, NY 12233-4757

RE: Vanderbilt Mansion NHS Conifer Tree Replacement

Dear Sir or Madam:

The National Park Service proposes to remove and replace a stand of white pine and hemlock trees on the grounds of Vanderbilt Mansion National Historic Site, Hyde Park (Dutchess County). Under the National Environmental Policy Act, we are preparing an Environmental Assessment to evaluate any impacts that would result from this project. We are seeking your input on any known occurrences of threatened or endangered species in the project area.

The site is one of the most intact remaining Hudson River picturesque landscapes and depicts the evolution of landscape design in America over some 200 years. The National Park Service seeks to manage the landscape to preserve its historic character in accordance with the 1930 period.

Attached is a portion of the USGS topographic map for Hyde Park, NY with the project impact area outlined in red, and a more detailed version of the same.

The current land use of the project area is as a National Historic Site operated by the National Park Service (NPS). The project area is approximately 11 acres in size containing around 500 trees. The project area is on the eastern boundary of the park adjacent to U.S Route 9.

The purpose of the project is twofold. The primary issue is public safety. As a result of a 100% inventory conducted by a certified arborist, over 40% of the trees were rated as

“high risk”, due to their likelihood of failure and the potential to strike the busy highway. In addition, the stand was planted in 1906 for the purpose of screening the Vanderbilt estate from the road. As the trees have matured and lost their lower limbs, they no longer serve this function.

The project has the following components:

1. Removal of existing trees;
2. Re-planting of trees with same or similar species.

Based on US Fish & Wildlife Service information, Dutchess County has the following Federal T&E Species:

- Atlantic Sturgeon
- Bald eagle
- Bog turtle
- Dwarf wedgemussel (Housatonic River drainage)
- Indiana bat
- New England cottontail
- Shortnose sturgeon

Since this is an upland site, the presence of sturgeon, dwarf wedgemussel and shortnose sturgeon can be ruled out. Bald eagle is found along the Hudson River about 1 mile to the west and may pass over the site as transient individuals. There are no state or Federal wetlands on the site, and the project area will be set to remain at least 200 feet from the riparian zone of Crum Elbow Creek. In 2010, the University of Maryland completed an Indiana Bat assessment (enclosed) of the stand and determined that unlikely that this stand provides significant, if any, habitat for the species.

We would welcome your input regarding any species of concern that have been recorded in this area. Thank you.

Sincerely,

David J. Hayes
Natural Resource Manager

enclosures



United States Department of the Interior

FISH AND WILDLIFE SERVICE



New York Field Office
3817 Luker Road, Cortland, NY 13045
Phone: (607) 753-9334
Fax: (607) 753-9699

Long Island Field Office
3 Old Barto Rd., Brookhaven, NY 11719
Phone: (631) 776-1401
Fax: (631) 776-1405

Endangered Species Act List Request Response Cover Sheet

This cover sheet is provided in response to a search of our website* for information regarding the potential presence of species under jurisdiction of the U.S. Fish and Wildlife Service (Service) within a proposed project area.

Attached is a copy of the New York State County List of Threatened, Endangered, and Candidate Species for the appropriate county(ies). The database that we use to respond to list requests was developed primarily to assist Federal agencies that are consulting with us under Section 7(a)(2) of the Endangered Species Act (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*). Our lists include all Federally-listed, proposed, and candidate species known to occur, as well as those likely to occur, in specific counties.

The attached information is designed to assist project sponsors or applicants through the process of determining whether a Federally-listed, proposed, or candidate species and/or “critical habitat” may occur within their proposed project area and when it is appropriate to contact our offices for additional coordination or consultation. You may be aware that our offices have provided much of this information in the past in project-specific letters. However, due to increasing project review workloads and decreasing staff, we are now providing as much information as possible through our website. We encourage anyone requesting species list information to print out all materials used in any analyses of effects on listed, proposed, or candidate species.

The Service routinely updates this database as species are proposed, listed, and delisted, or as we obtain new biological information or specific presence/absence information for listed species. If project proponents coordinate with the Service to address proposed and candidate species in early stages of planning, this should not be a problem if these species are eventually listed. However, we recommend that both project proponents and reviewing agencies retrieve from our online database an *updated* list every 90 days to append to this document to ensure that listed species presence/absence information for the proposed project is *current*.

Reminder: Section 9 of the ESA prohibits unauthorized taking** of listed species and applies to Federal and non-Federal activities. For projects not authorized, funded, or carried out by a Federal agency, consultation with the Service pursuant to Section 7(a)(2) of the ESA is not required. However, no person is authorized to “take**” any listed species without appropriate authorizations from the Service. Therefore, we provide technical assistance to individuals and agencies to assist with project planning to avoid the potential for “take**,” or when appropriate, to provide assistance with their application for an incidental take permit pursuant to Section 10(a)(1)(B) of the ESA.

Additionally, endangered species and their habitats are protected by Section 7(a)(2) of the ESA, which requires Federal agencies, in consultation with the Service, to ensure that any action it authorizes, funds, or carries out is not likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat. An assessment of the potential direct, indirect, and cumulative impacts is required for all Federal actions that may affect listed species.

For instance, work in certain waters of the United States, including wetlands and streams, may require a permit from the U.S. Army Corps of Engineers (Corps). If a permit is required, in reviewing the application pursuant to the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 *et seq.*), the Service may concur, with or without recommending additional permit conditions, or recommend denial of the permit depending upon potential adverse impacts on fish and wildlife resources associated with project construction or implementation. The need for a Corps permit may be determined by contacting the appropriate Corps office(s).*

For additional information on fish and wildlife resources or State-listed species, we suggest contacting the appropriate New York State Department of Environmental Conservation regional office(s) and the New York Natural Heritage Program Information Services.*

Since wetlands, ponds, streams, or open or sheltered coastal waters may be present in the project area, it may be helpful to utilize the National Wetlands Inventory (NWI) maps as an initial screening tool. However, they may or may not be available for the project area. Please note that while the NWI maps are reasonably accurate, they should not be used in lieu of field surveys for determining the presence of wetlands or delineating wetland boundaries for Federal regulatory purposes. Online information on the NWI program and digital data can be downloaded from Wetlands Mapper, http://wetlands.fws.gov/mapper_tool.htm.

Project construction or implementation should not commence until all requirements of the ESA have been fulfilled. After reviewing our website and following the steps outlined, we encourage both project proponents and reviewing agencies to contact our office to determine whether an accurate determination of species impacts has been made. If there are any questions about our county lists or agency or project proponent responsibilities under the ESA, please contact the New York or Long Island Field Office Endangered Species Program at the numbers listed above.

Attachment (county list of species)

*Additional information referred to above may be found on our website at:
<http://www.fws.gov/northeast/nyfo/es/section7.htm>

** Under the Act and regulations, it is illegal for any person subject to the jurisdiction of the United States to **take** (includes harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect; or to attempt any of these), import or export, ship in interstate or foreign commerce in the course of commercial activity, or sell or offer for sale in interstate or foreign commerce any endangered fish or wildlife species and most threatened fish and wildlife species. It is also illegal to possess, sell, deliver, carry, transport, or ship any such wildlife that has been taken illegally. "Harm" includes any act which actually kills or injures fish or wildlife, and case law has clarified that such acts may include significant habitat modification or degradation that significantly impairs essential behavioral patterns of fish or wildlife.



Dutchess County

Federally Listed Endangered and Threatened Species and Candidate Species

This list represents the best available information regarding known or likely County occurrences of Federally-listed and candidate species and is subject to change as new information becomes available.

<u>Common Name</u>	<u>Scientific Name</u>	<u>Status</u>
Atlantic Sturgeon ²	<i>Acipenser oxyrinchus oxyrinchus</i>	C
Bald eagle ¹	<i>Haliaeetus leucocephalus</i>	D
Bog turtle	<i>Clemmys [=Glyptemys] muhlenbergii</i>	T
Dwarf wedgemussel (Housatonic River drainage)	<i>Alasmodonta heterodon</i>	E
Indiana bat (S)	<i>Myotis sodalis</i>	E
New England cottontail	<i>Sylvilagus transitionalis</i>	C
Shortnose sturgeon ²	<i>Acipenser brevirostrum</i>	E

Status Codes: E=Endangered, T=Threatened, P=Proposed, C=Candidate, D=Delisted.

W=Winter S=Summer

¹ The bald eagle was delisted on August 8, 2007. While there are no ESA requirements for bald eagles after this date, the eagles continue to receive protection under the Bald and Golden Eagle Protection Act (BGEPA). Please follow the Service's May 2007 Bald Eagle Management Guidelines to determine whether you can avoid impacts under the BGEPA for your projects. If you have any questions, please contact the endangered species branch in our office.

² Primarily occurs in Hudson River. Principal responsibility for this species is vested with the National Oceanic and Atmospheric Administration/Fisheries.

Information current as of: September 21, 2010



IN REPLY REFER TO:

United States Department of the Interior

NATIONAL PARK SERVICE
Roosevelt-Vanderbilt National Historical Sites
4097 Albany Post Road
Hyde Park, New York 12538
Home of Franklin D. Roosevelt N.H.S.
Vanderbilt Mansion N.H.S.
Eleanor Roosevelt N.H.S.

N-7617 (VAMA)

May 31, 2011

Jeffery Zappieri
Division of Coastal Resources
NYS Department of State
99 Washington Avenue, Suite 1010
Albany, NY 12231-0001

Re: Coastal Zone Consistency Determination

Dear Mr. Zappieri:

The National Park Service (NPS) is submitting for your review the description of a proposed Federal agency action at Vanderbilt Mansion National Historic Site in Hyde Park, Dutchess County, New York. Vanderbilt Mansion National Historic Site (VMNHS) contains 211.65 acres between U.S. Route 9 and the Hudson River in the Town of Hyde Park. The project area is within the boundaries of both the NYS Coastal Zone and the Estates District Scenic Area of Statewide Significance.

NPS is in the process of preparing an Environmental Assessment (EA) of this proposal in accordance with National Environmental Policy Act (NEPA) requirements. A draft version of the EA is enclosed to aid your review. We believe this proposal would be consistent with New York's Coastal Management Program, and request your review and determination. The project has undergone public scoping which ended in September 2010.

Summary:

The National Park Service (NPS) proposes to remove and replace approximately 462 white pine and hemlock trees present within a 6.7 acre area located along U.S. Route 9 at Vanderbilt Mansion National Historic Site in Hyde Park, New York. The project area is in the shape of a long polygon approximately 2300 feet long and 150 feet wide.

This project is aimed at addressing many deteriorated and hazardous trees located along Rt.9. In order to assess the location, type, condition and status of each tree within the project area, the NPS prepared an existing conditions report. The existing conditions report documents that the tree conditions in the overall conifer barrier are fair to poor. The project area contains 312 pine and hemlock with a high or severe level of risk utilizing a risk rating assessment protocol that is based on the USDA Forest Service Community Tree Risk Rating System. This represents 67.53 percent of the

inventoried trees in the project area. There are several risks posed by tree failure in this area of the park, including trees falling onto U.S. Route 9, a major transportation route. Falling trees could also damage power lines and the historic masonry wall.

Purpose and Need for Action:

The purpose of the proposed project is to improve public safety and restore the cultural landscape in a way that protects the park's resources and values and that enhances visitor enjoyment and interpretation of the park. This conifer barrier replacement is needed because the physical deterioration of the trees within the barrier has created public safety concerns, and the historic integrity of the barrier has degraded, which has resulted in an inaccurate portrayal of the historic landscape to the public.

Alternatives

Three alternatives are being analyzed, including:

Alternative A-No Action

Alternative B-Complete Barrier Replacement (Preferred Alternative)

Alternative C – Partial Barrier Replacement

In addition, a fourth alternative (Removal of the Pine Barrier in Stages) was considered but dismissed.

Other Approvals Needed

Internal NPS approval would be in the form of a Finding of No Significant Impact (FONSI) signed by the Director of the NPS Northeast Region. The NPS also requires concurrence from the New York State Historic Preservation Office and the U.S. Fish and Wildlife Service. Consultation with both agencies has already commenced.

Please contact me should you have any question about the project. I can be reached at (845) 229-1521 or via e-mail at dave_hayes@nps.gov. Your review and determination would be greatly appreciated. Thank you.

Sincerely,

A handwritten signature in black ink that reads "David J. Hayes". The signature is written in a cursive, flowing style.

David J. Hayes
Natural Resource Program Manager

Appendix B

Scenic Hudson, Inc.
One Civic Center Plaza, Suite 200
Poughkeepsie, NY 12601-3156
Tel: 845 473 4440
Fax: 845 473 0740
email: info@scenichudson.org
www.scenichudson.org



Sent via fax: 845.229.5209

September 14, 2010

Ms. Sara Olson, Superintendent
Roosevelt-Vanderbilt NHS
4097 Albany Post Rd
Hyde Park, NY 12538

Re: Public Scoping Meeting – Route 9 Conifer Barrier Replacement

Dear Ms. Olson,

The National Park Service has long been an outstanding steward of its historic properties in Hyde Park and we value our strong working relationship. We also know that, at times, difficult management decisions must be made in order to ensure the continued public's enjoyment of the site, as well as their safety.

Scenic Hudson has reviewed National Park Service's (NPS) proposal to replace the stand of White pines and Hemlocks along Route 9 and the Cultural Landscape Report prepared for the Vanderbilt Mansion. We understand that this stand of trees has matured to a point where the lower limbs no longer maintain the intended visual buffer between the Vanderbilt Mansion and Route 9. In addition to the loss of this visual buffer, there are unhealthy trees within the stand that could potentially pose safety issues for motorists should the branches - or even a tree fall onto the roadway.

The preferred alternative would recreate the stand of trees and historic landscape created by the Vanderbilt's by removing all the trees and replacing them in three plantings.

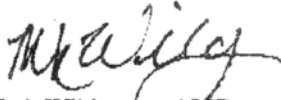
However, we suggest that the Environmental Assessment include another alternative that considers the selective removal of only dead, dying, or other trees necessary to result in a partial buffer along the road. While this would not recreate the Vanderbilt's intended landscape, it would continue to provide a buffer of some large trees along the road. Value judgments must be made as to the importance of the long-term re-creation of the historic landscape against the benefit of keeping some large trees along the road.

We also suggest that the Environmental Assessment provide a survey of each individual tree, including an assessment of the health of each specimen. This survey would allow the NPS to determine if there are enough healthy trees to preserve a partial buffer along the road.

Finally, Scenic Hudson recommends a visual analysis be prepared that includes computer-generated visual simulations depicting how each alternative would look.

Scenic Hudson thanks the NPS for the opportunity to comment on this important issue.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Mark Wildonger', written in a cursive style.

Mark Wildonger, AICP
Planner

Vanderbilt Mansion
National Historic Site

National Park Service
U.S. Department of the Interior



Environmental Assessment for Route 9 Conifer Barrier Replacement
Public Scoping Meeting, August 19, 2010, 4:00 PM to 7:00 PM

AUG. 20, 2010

Please note that names and addresses of people who comment become part of the public record. If you wish us to withhold your name and/or address, you must state this prominently at the beginning of your comment. We will make all submissions from organizations, businesses, and individuals identifying themselves as representatives or officials of organizations or businesses available for public inspection in their entirety.

Public Comment Form (Please Print)

Your Name: AL MAROTTA
Organization you represent (if any): NONE
Mailing Address: 14 ZERNER BLVD
City, State, Zip Code: HOPEWELL JCT, N.Y. 12533

Comments:

I FULLY AGREE WITH YOUR PLAN TO REMOVE ALL THE TALL TREES ALONG ROUTE 9. THE TREES POSE A HAZARD. I UNDERSTAND YOUR DESIRE FROM A HISTORICAL PERSPECTIVE TO REPLACE THE TREES WITH SIMILAR TREES, NAMELY WHITE PINE AND HEMLOCK. I HAVE NO PROBLEM WITH THE HEMLOCK, HOWEVER, I HAVE A BIG PROBLEM WITH THE WHITE PINE.

WHITE PINE TREES ARE TERRIBLE. THEY ALL BELONG IN NORTH CAROLINA! THEY GROW TOO FAST, WITHOUT MUCH FOLIAGE, AND RELEASE TONS OF YELLOW POLLEN EVERY SPRING. PLEASE CONSIDER PLANTING SPRUCE TREES OR FIR TREES INSTEAD. NORWAY OR WHITE SPRUCE ARE O.K. FIR IS EVEN BETTER. I HAVE 4 DOUGLAS FIR AND 6 FRASER FIR IN MY YARD IN HOPEWELL JCT. I CUT DOWN MY WHITE PINES YEARS AGO.

FIR AND SPRUCE WILL GROW SLOWER THAN PINE, WHICH ACTUALLY IS WHAT YOU SHOULD WANT. THEIR FOLIAGE IS LOWER, WHICH IS ALSO DESIRABLE FOR PRIVACY.

I AM CERTAIN THAT 30 YEARS FROM NOW WHEN NEW GENERATIONS OF VISITORS VISIT THE ESTATE, THEY WILL NOT BE AWARE, NOR WILL THEY CARE, THAT WE PLANTED FIRS INSTEAD OF PINES.

ALSO, LARGE WHITE PINES ARE VERY SUSCEPTIBLE TO BREAKING DURING STORMS.

THANK YOU FOR LISTENING
AL M.

3

P.S. Thank you for the great job you do in Hyde Park. We visit often.



Environmental Assessment for Route 9 Conifer Barrier Replacement
Public Scoping Meeting, August 19, 2010, 4:00 PM to 7:00 PM

Please note that names and addresses of people who comment become part of the public record. If you wish us to withhold your name and/or address, you must state this prominently at the beginning of your comment. We will make all submissions from organizations, businesses, and individuals identifying themselves as representatives or officials of organizations or businesses available for public inspection in their entirety.

Comments can also be submitted on-line by following the appropriate links at <http://parkplanning.nps.gov/VAMA>.

Public Comment Form (Please Print)

Your Name: Patricia A Dreveny

Organization you represent (if any): _____

Mailing Address: 611 Violet Ave # A3

City, State, Zip Code: Hyde Park NY 12538

1. What aspects of the proposed project are most important to you? Safety issues of falling trees, but also maintaining the landscape as close to the original design

2. Do you have concerns suggestions regarding the use and/or disposition of the removed timber?

I think the timber should be sold in order to ^{help} offset the cost of removal + replanting

3. What issues or concerns to you have regarding the tree removal and replacement?

balance between aesthetics + safety
Perhaps remove trees closer to the road in 1st phase + replace in that way the most threatening trees will be gone but there is some barrier while new trees grow a little

Other Comments:

Vanderbilt Mansion

National Historic Site

National Park Service

U.S. Department of the Interior



Environmental Assessment for Route 9 Conifer Barrier Replacement
Public Scoping Meeting, August 19, 2010, 4:00 PM to 7:00 PM

Please note that names and addresses of people who comment become part of the public record. If you wish us to withhold your name and/or address, you must state this prominently at the beginning of your comment. We will make all submissions from organizations, businesses, and individuals identifying themselves as representatives or officials of organizations or businesses available for public inspection in their entirety.

Public Comment Form (Please Print)

Your Name:

Paul Jordan

Organization you represent (if any):

Legacy Consulting Arborist LLC

Mailing Address:

468 Mill Hook Road

City, State, Zip Code:

Accon, NY 12404

Comments:

Hi!

I am an ISA Certified Arborist / Municipal Specialist. NJ-0932AM

Also a New Jersey Certified Tree Expert NJ CTE # 539

Some of the trees on the "visual barriers" are surely dead, some are hurting. But I believe some are still viable and can live for many years.

I would like to offer my services as a consulting arborist to inventory, prepare hazard tree assessments, and health assessments on existing trees. Also planting recommendations for new trees. I don't think Hemlock is suitable replacement due to its health issues.

Please feel free to contact me

Paul Jordan

845-853-6220

cte539@yahoo.com

Paul Jordan

Vanderbilt Mansion

National Historic Site

National Park Service

U.S. Department of the Interior



Environmental Assessment for Route 9 Conifer Barrier Replacement
Public Scoping Meeting, August 19, 2010, 4:00 PM to 7:00 PM

Please note that names and addresses of people who comment become part of the public record. If you wish us to withhold your name and/or address, you must state this prominently at the beginning of your comment. We will make all submissions from organizations, businesses, and individuals identifying themselves as representatives or officials of organizations or businesses available for public inspection in their entirety.

Comments can also be submitted on-line by following the appropriate links at <http://parkplanning.nps.gov/VAMA>.

Public Comment Form (Please Print)

Your Name: DOREEN TIGNANELLI

Organization you represent (if any): _____

Mailing Address: 29 COLBURN DRIVE

City, State, Zip Code: POUGHKEEPSIE NY 12603

1. What aspects of the proposed project are most important to you? THAT THE REPLACEMENT BE CARRIED OUT IN A COST-EFFECTIVE MANNER.

2. Do you have concerns suggestions regarding the use and/or disposition of the removed timber? _____

WILL TIMBER BE SOLD TO OFFSET COSTS OF REMOVAL AND REPLANTING?

3. What issues or concerns to you have regarding the tree removal and replacement? REPLACEMENT OF HEMLOCKS

WITH HEMLOCKS IS A WASTE AS HEMLOCKS ARE BEING DECIMATED BY WOOLY ADELGID THROUGHOUT THE COUNTRY, THERE IS NO PRACTICAL WAY TO MANAGE HEMLOCK WOOLY ADELGID. HEMLOCKS SHOULD INSTEAD BE REPLACED BY MIXTURE OF NATIVES SPECIES SUCH AS RED AND WHITE SPRUCES AND EASTERN RED CEDAR. DIVERSITY OF PLANTINGS WILL BE HELPFUL IF INSECTS OR DISEASE STRIKE AGAIN IN THE FUTURE, ADDITIONALLY, REPLACEMENT TREES SHOULD BE 3" CALIPER, MAX. ANYTHING LARGER IS MORE EXPENSIVE TO

Other Comments: PLANT, HARDER TO ESTABLISH AND SUSTAIN, SIZE DIFFERENCE AFTER 5 YEARS OR SO WILL BE NEGLIGIBLE AND NOT COST-EFFECTIVE.

I FOUND IT TROUBLING THAT THE CONSULTANT I SPOKE TO AT THE AUG. 19, 2010 SCOPING SESSION KNEW NOTHING ABOUT WOOLY ADELGID EVEN THOUGH THE MEETING WAS SPECIFIC TO REPLACEMENT OF HEMLOCKS. HE SAID THERE WOULD BE ANOTHER CONSULTANT ~~3~~ HIRED SPECIFICALLY FOR TREES. HOW MANY CONSULTANTS WAS IT NECESSARY FOR THE PARK SERVICE TO HIRE AT TAXPAYER EXPENSE? WHAT IS THE COST?



Dave_Hayes@nps.gov

09/16/2010 11:20 AM

To HLacey@ljbinc.com

cc

bcc

Subject Fw: Additional Vanderbilt Scoping comments

This just in....

Dave Hayes
Natural Resource Program Manager
Roosevelt-Vanderbilt National Historic Sites
4097 Albany Post Rd.
Hyde Park, NY 12538

dave_hayes@nps.gov

tel 845.229.1521

fax 845.229.5209

----- Forwarded by Dave Hayes/ROVA/NPS on 09/16/2010 11:13 AM -----

Doreentig@aol.com

09/16/2010 10:54
AM

dave_hayes@nps.gov

To

cc

Subject
Additional Vanderbilt Scoping
comments

In addition to my prior written comments submitted to Superintendent Olson, I offer the following additional comment to be included as part of the official record:

Tree removal should be phased. Removal of trees all at once would drastically alter the character of the site.

Doreen Tignanelli
29 Colburn Drive
Poughkeepsie NY 12603

"Information is the oxygen in which the fire of democracy burns. If you have information, it burns, if you don't, it chokes". D. DeBar



Environmental Assessment for Route 9 Conifer Barrier Replacement
Public Scoping Meeting, August 19, 2010, 4:00 PM to 7:00 PM

Please note that names and addresses of people who comment become part of the public record. If you wish us to withhold your name and/or address, you must state this prominently at the beginning of your comment. We will make all submissions from organizations, businesses, and individuals identifying themselves as representatives or officials of organizations or businesses available for public inspection in their entirety.

Comments can also be submitted on-line by following the appropriate links at <http://parkplanning.nps.gov/VAMA>.

Public Comment Form (Please Print)

Your Name: Beth Kolp

Organization you represent (if any): _____

Mailing Address: _____

City, State, Zip Code: _____

1. What aspects of the proposed project are most important to you? _____

Replacement with trees as large as possible

2. Do you have concerns suggestions regarding the use and/or disposition of the removed timber? _____

3. What issues or concerns to you have regarding the tree removal and replacement? _____

*Use the hemlocks that will be planted
resistant to the ~~ant~~ woolly adelgid*

Other Comments:



Heather Lacey/Ljbinc

08/23/2010 02:26 PM

To Patrick Sage/Ljbinc@ljbinc

cc

bcc

Subject VAMA comments

Heather Lacey
Environmental Scientist/Biologist
LJB Inc.
3100 Research Boulevard
Dayton, Ohio 45420
Phone: (937) 259-5143
Cell: (937) 307-0744
Fax: (937) 259-5100

----- Forwarded by Heather Lacey/Ljbinc on 08/23/2010 02:23 PM -----



Dave_Hayes@nps.gov

08/23/2010 01:52 PM

To HLacey@ljbinc.com

cc

Subject Fw: Would Vanderbilt have cut down these 1,000 trees on his property?

FYI a comment received via e-mail.

Dave Hayes
Natural Resource Program Manager
Roosevelt-Vanderbilt National Historic Sites
4097 Albany Post Rd.
Hyde Park, NY 12538

dave_hayes@nps.gov
tel 845.229.1521
fax 845.229.5209

----- Forwarded by Dave Hayes/ROVA/NPS on 08/23/2010 01:39 PM -----

"GDZ"
<gezee@verizon.net>

08/22/2010 10:50
AM

<dave_hayes@nps.gov>

To

cc

Subject
Would Vanderbilt have cut down
these 1,000 trees on his property?

Dear Mr. Hayes,

Please convey this to Ms. Olson:

Although Vanderbilt was a Yale trained horticulturalist, I would expect that his sense of land management was to smartly prune and care for the trees. I think its highly unlikely that he would have approved of your plan, founded far more in expediency, litigation issues, and the usual lame excuses of " thet rees are old anyway and it's for safety."

"He carried a pruning saw on his walks," Olson said.
Yes, to groom and trim but not to cut down 1,000 trees.

With the growing, and long overdue, awareness of global warming, and the observable results of it, it is unforgiveable that you people would promote this kind of wanton cutting.

If you are part of the Parks service you need to look at the recent Ken Burns series on "The National Parks." Hopefully that will influence your thinking on this issue.

Sincerely,

George D. Zulch
gezee@verizon.net

----- Forwarded by Heather Lacey/Ljbinc on 08/23/2010 02:23 PM -----



Dave_Hayes@nps.gov

08/23/2010 01:52 PM

To HLacey@ljbinc.com

cc

Subject Fw: What are the statistics.

More from previous.

Dave Hayes
Natural Resource Program Manager
Roosevelt-Vanderbilt National Historic Sites
4097 Albany Post Rd.
Hyde Park, NY 12538

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----- Forwarded by Dave Hayes/ROVA/NPS on 08/23/2010 01:40 PM -----

"GDZ"
<gezee@verizon.net>

08/22/2010 11:22

<dave_hayes@nps.gov>

To

cc

PM

<DZulchCoach@aol.com>

Subject

What are the statistics.

George D. Zulch
gezee@verizon.net

1. What are the actual statistics on people killed or seriously injured in the last 5 years?
2. Have you considered cutting back the trees close to the road and leaving the ones further in?
3. What will be the effect to the local environment there besides a big gaping hole, where once was a stand of trees?
4. In a time of global warming becoming increasingly significant in causing severe storms, loss of life and property damage. does it bother you that you are participating in a worldwide decimation of forestry that further aggravates this?
5. What are you intending to plant in place of the trees?
6. What do you think Stevern Mather and J. Horace McFarland would have said to cutting down 1,000 full size trees because they are old and a "safety issue." Whose well being is threatened by them anyway?

KEEP VANDERBILT GREEN ALLIANCE

17 Old Post Road
Rhinebeck, NY 12572
845.876.8787

September 16, 2010

Sarah Olson, Superintendent
Roosevelt-Vanderbilt NHS
4097 Albany Post Road
Hyde Park, NY 12538

RE: Route 9 Conifer Barrier Replacement

Dear Ms. Olson:

Thank you for meeting with us earlier this week and for taking the time to hear our concerns regarding the Route 9 Conifer Barrier Replacement proposal by the National Park Service.

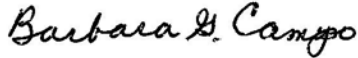
We appreciate the opportunity to have been able to learn about details related to the proposal that were not presented by either articles in the local newspapers or in the two-page NPS informational sheet from the August 19, 2010, Public Scoping Meeting. The Olmstead Center "Cultural Landscape Report for VMNHS Volume II: Treatment" that you provided us with, was, in fact, very enlightening and informative.

All of that being said, we ask that you please find the enclosed petitions of the KEEP VANDERBILT GREEN ALLIANCE with some 340 signatures. We are grateful that a dialogue has been opened on this proposal.

As follow-up to our meeting on September 14, 2010, we would like to share with you our understanding of the points that you informally made, that we came away with; if we have misunderstood anything, kindly write back and let us know: It is our understanding that (1) the public comment period (through September 18, 2010) noted in the Public Scoping Meeting pages is extended to September 30, 2010; (2) that an assessment of the individual trees has been recently completed and the report will be available to the public for review; (3) that a second comment period will be established for review of that environmental assessment report; and (4) that the intention of NPS is not to clear-cut approximately 1,000 trees comprising the barrier in question.

If you have any questions, please do not hesitate to contact us: Donna Zulch, dzulchcoach@aol.com or phone 876.8787 or Barbara Campo, bkgrant@hvc.rr.com or phone 758.1422.

Respectfully,

Donna Zulch

Barbara G. Campo

KEEP VANDERBILT GREEN ALLIANCE PETITION

Background

The National Park Service (NPS) has proposed the clear-cutting of 1,000 trees on the Vanderbilt Mansion National Historic Site in Hyde Park, New York. The stated reason for such clear-cutting is safety and to create a visual barrier between the mansion and Route 9. The stand of trees is comprised of approximately eleven acres, containing nearly 1,000 trees. The NPS has already removed 250 trees in recent years.

Petition

We, the undersigned, oppose the reckless clear-cutting of 1,000 trees at the Vanderbilt Mansion Historic Site, as now proposed by the NPS, the stewards of the site.

We request the NPS assess the condition of individual trees and make such an assessment available to the public. We request that documentation be provided with data reflecting the danger these trees present to the public: how many people have been killed or seriously injured by these trees in the last five years? Who are these trees bothering anyway?

If all of the proposed trees are removed, the visual barrier that is currently in place will be gone, leaving a gaping hole that cannot be replaced for years until the mature growth of intended re-plantings. The indiscriminate removal of the roadside and other trees is in direct conflict with the NPS intention of protecting the visual barrier.

We urge the NPS to extend the public comment period beyond the current September 18, 2010, deadline to allow the public adequate opportunity to review all pertinent studies and documentation.

Please return by September 14, 2010, to: KEEP VANDERBILT GREEN ALLIANCE, c/o Donna Zulch

Print your Name	Signature	Street Address	City, State, Zip Code
Jean-Marie Truchard	J. Truchard - Eckert	32 Country Club Dr.	Red Hook, NY 12571
Shula Wyse	Shula Wyse	321 Langstaff Rd	Rhinebeck, NY 12572
Dionan Chesmel	Dionan Chesmel	31 N. Loop	Rhinebeck, NY 12572
Bertram Benston	Bertram Benston	43 Pond Drive E	Rhinebeck, NY
MEL CAGNEY	Mel Cagney	29 No. Loop	Rhinebeck, NY
Jo Compton	Jo Compton	27 N. Loop	RHINEBECK NY
Trisha Hewelling	Trisha Hewelling	107 E Market St	Hyde Park, NY
ROSE BERET	Rose Beret	621 Indian Hollow Rd	Rhinebeck, NY
SALINA RODRIGUEZ	Salina Rodriguez	145 Whiteside Rd	Red Hook, NY
Bernadett Feltz	Bernadett Feltz	9 Sarah Ct	Rhinebeck, NY

The full petition has not been included in this appendix. The remaining approximately 300 signatures are maintained in the Vanderbilt Mansion National Historic Site project files.

APPENDIX C

DRAFT IMPAIRMENT DETERMINATION

Route 9 Conifer Barrier Replacement Vanderbilt Mansion National Historic Site

The Prohibition on Impairment of Park Resources and Values

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

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

What is Impairment?

NPS *Management Policies 2006*, Section 1.4.5, *What Constitutes Impairment of Park Resources and Values*, and Section 1.4.6, *What Constitutes Park Resources and Values*, provide an explanation of impairment.

Impairment is an impact that, in the professional judgment of the responsible National Park Service manager, would harm the integrity of park resources or values, including the opportunities that otherwise would be present for the enjoyment of those resources or values.

The NPS has discretion to allow impacts on Park resources and values when necessary and appropriate to fulfill the purposes of a Park (NPS 2006 sec. 1.4.3). However, the NPS cannot allow an adverse impact that would constitute impairment of the affected resources and values (NPS 2006 sec 1.4.3).

Section 1.4.5 of *Management Policies 2006* states:

An impact to any park resource or value may, but does not necessarily, constitute impairment. An impact would be more likely to constitute impairment to the extent that it affects a resource or value whose conservation is:

- o Necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park
- o Key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park, or

- o Identified as a goal in the park's general management plan or other relevant NPS planning documents as being of significance.

An impact would be less likely to constitute an impairment if it is an unavoidable result of an action necessary to preserve or restore the integrity of park resources or values and it cannot be further mitigated.

Per Section 1.4.6 of *Management Policies 2006*, park resources and values that may be impaired include:

- o the park's scenery, natural and historic objects, and wildlife, and the processes and condition that sustain them, including, to the extent present in the park: the ecological, biological, and physical processes that created the park and continue to act upon it; scenic features; natural visibility, both in daytime and at night; natural landscapes; natural soundscapes and smells; water and air resources; soils; geological resources; paleontological resources; archeological resources; cultural landscapes; ethnographic resources; historic and prehistoric sites, structure, and objects; museum collections; and native plants and animals;
- o appropriate opportunities to experience enjoyment of the above resources, to the extent that can be done without impairing them;
- o the park's role in contributing to the national dignity, the high public value and integrity, and the superlative environmental quality of the national park system, and the benefit and inspiration provided to the American people by the national park system; and
- o any additional attributes encompassed by the specific values and purposes for which the park was established.

Impairment may result from NPS activities in managing the park, visitor activities, or activities undertaken by concessionaires, contractors, and others operating in the park. Impairment may also result from sources or activities outside the park, but this would not be a violation of the Organic Act unless the NPS was in some way responsible for the action.

How is an Impairment Determination Made?

Section 1.4.7 of *Management Policies 2006* states, "[i]n making a determination of whether there would be an impairment, an NPS decision maker must use his or her professional judgement. This means that the decision-maker must consider any environmental assessments or environmental impact statements required by the National Environmental Policy Act of 1969 (NEPA); consultations required under Section 106 of the National Historic Preservation Act (NHPA); relevant scientific and scholarly studies; advice or insights offered by subject matter experts and others who have relevant knowledge or experience; and the results of civic engagement and public involvement activities relating to the decision.

Management Policies 2006 further define "professional judgement" as "a decision or opinion that is shaped by study and analysis and full consideration of all the relevant facts, and that takes into account the decision-maker's education, training, and experience; advice or insights offered by

subject matter experts and others who have relevant knowledge and experience; good science and scholarship; and, whenever appropriate, the results of civic engagement and public involvement activities relation to the decision

Impairment Determination for the Preferred Alternative

This determination on impairment has been prepared for the preferred alternative described on page 25 of this EA. An impairment determination is made for all resource impact topics analyzed for the preferred alternative. An impairment determination is not made for visitor experience, or public health and safety because impairment findings relate back to park resources and values, and these impact areas are not generally considered to be park resources or values according to the Organic Act, and cannot be impaired in the same way that an action can impair park resources and values.

Findings on Impairment for Vegetation

Under the Preferred Alternative, approximately 462 conifers within the 6.75 acre project area would be removed and replaced. The vegetation within the project area is part of a designed landscape and no locally rare species are present.

Although mitigation measures would be implemented, removal, breakage, or root damage from project staging could result in impacts to vegetation immediately outside of the removal area footprint. Mitigation measures would be implemented during the work to minimize the potential adverse impacts to vegetation. Such mitigation measures may include but are not limited to the following:

- Ensure that all protection measures are clearly stated in contract specifications, and that workers would be instructed to avoid conducting activities beyond the construction zone, as defined by the work zone fencing;
- Minimize trimming and removing vegetation to accommodate construction equipment ingress and egress; and
- Avoid collision of equipment with trees and other vegetation. Place protective fencing around tree trunks in close proximity to project activities to minimize potential adverse effects to bark or other tree attributes resulting from collision.

Considering that all conifers removed from the project area would be replaced with a greater number of similar species of trees, the implementation of the Preferred Alternative would result in short term, moderate adverse impacts to vegetation within the 6.75 acre area due to the removal and replacement of 462 trees. Since the replanted species would be replacing a stand with declining health, long term impacts would be beneficial.

Implementation of the Preferred Alternative would result in short term moderate adverse and long term beneficial impacts to vegetation due to the removal and replacement of 6.75 acres of trees. Because there would be no major adverse impacts to vegetation, this alternative would not result in impairment of park resources or values.

Findings on Impairment for Cultural Landscapes

The designed historic landscape of the VAMA meets Criterion C of the National Register because it embodies the distinctive characteristics of a type and period of American landscape architecture, because it possesses high artistic value, and because it is the work of a recognized master (NPS, 1992b). During the removal action, the historic integrity of the barrier would be impacted. This impact to the cultural landscape would be short term, minor and adverse. However, after the in-kind replacements occur, the barrier would appear similar to the original design and would serve the purpose for which it was originally intended. The removals would also prevent the risk of damage to the historic ashlar masonry walls. Therefore, the result of the removal and replacement activities would be a long term beneficial impact on the cultural landscape.

Since the purpose of the Vanderbilt Mansion National Historic Site “is to preserve and interpret the country estate of Frederick W. and Louise Vanderbilt as a premier example of an “American country place,” illustrating important economic, social, and cultural developments resulting from America’s industrialization following the Civil War” (NPS, 2010c), cultural landscapes are necessary to fulfill the purposes for which the park was established. Because the preferred alternative would result in short term minor adverse impacts during the action and ultimately result in a long term beneficial impact on the cultural landscape, which is necessary to fulfill the purposes for which the park was established, no impairment of the park resources or values would occur.

Findings on Impairment for Archeological Resources

The Vanderbilt Mansion National Historic Site protects a historic legacy. The site is a premier example of an American country estate, containing a 54-room Beaux-Arts style mansion, formal gardens and one of the most outstanding picturesque views of the Hudson River remaining today. An archeological survey undertaken by Gray & Pape, Inc. in 2010 resulted in the confirmation of several archaeological sites within the project area (Fugate 2010). The use of vehicles within the project area is likely to disturb soils and compact subsurface deposits. Root removal will result in substantial ground disturbance with the potential to impact archeological deposits. NPS would avoid impacts to all but two sites during this project. These remaining sites would undergo additional investigation to determine their significance and they would either be avoided or additional measures will be put in place to mitigate the adverse impacts.

Because mitigation measures would be in place, the preferred alternative would have only localized negligible to minor short term adverse impacts on archeological resources, no impairment of the park resources or values would occur.



As the nation's principal conservation agency, the Department of the interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protection our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historical places; and providing for the enjoyment of life through outdoor recreation. The department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. Administration.