

FINDING OF NO SIGNIFICANT IMPACT

Battlefield Restoration: Railroad Redoubt

Vicksburg National Military Park

The main body of Vicksburg National Military Park (VNMP) is located about four miles due east of the Mississippi River in Warren County, Mississippi, adjacent to the city limits of Vicksburg, and encompasses approximately 1,800 acres. About 600 acres of the park are maintained via regular mowing, while around 1,200 acres consist of mixed oak-hickory hardwood forest. Roughly crescent-shaped, the main park unit follows the 1863 siege and defense lines that wrap around the northern, eastern, and southern boundaries of the city. The park has three detached units located on the high bluffs overlooking the Mississippi River. They are: Navy Circle, South Fort, and Louisiana Circle. A fourth detached unit, Pemberton's Headquarters, is located in historic downtown Vicksburg. The park's fifth detached unit is Grant's Canal, situated across the Mississippi River, approximately one and a half miles to the west, in the town of Delta, Louisiana (Madison Parish).

Battlefield restoration at Railroad Redoubt will help the staff at VNMP achieve their cultural resource management goals, consistent with the park's enabling legislation. It will be used as a strategy to restore, preserve, and protect the historic landscape. The purpose of the proposed restoration action is rooted in VNMP's 1899 enabling legislation. The public law that created the park set forth specific goals and objectives relating to maintenance of the cultural landscape. The need for restoration at this time is due to the current condition of the landscape. During the Civil War, the area now encompassed by the park was mostly devoid of woody vegetation. In the 1930s, vegetation was planted by the Civilian Conservation Corps as a means of combating severe erosion. However, the greenery did not solve the erosion issue, and furthermore masked historic features of the landscape. Restoration of a historically open viewshed will contribute to enhanced visitor understanding and appreciation of the siege of Vicksburg.

An Environmental Assessment (EA) was prepared to aid in decision making and to better understand the environmental effects associated with employing battlefield restoration to protect and interpret the cultural resources of the park. Environmental issues identified during scoping and evaluated in the EA included cultural resources (including the cultural landscape), visitor use and experience, wildlife and habitat (including threatened and endangered [T&E] species), vegetation (including exotic species), water quality and wetlands, soils, and park operations.

PREFERRED/SELECTED ALTERNATIVE

Alternative 3

The selected alternative is Alternative 3 as presented in the Environmental Assessment. Most of the wooded terrain upland from the stream will be cleared and replaced with a cover of Bermuda grass (*Cynodon dactylon*, a species which had arrived in the area by the Civil War) in order to improve the historical accuracy of the cultural landscape. A 50-foot-wide riparian strip of vegetation will be preserved along each side of a 500-foot, linear, forested wetland that flows through the area. Trees and brush up to twenty feet in height as measured from the stream bank will be preserved. Maintaining a riparian corridor along the stream will preserve habitat for the majority of species which inhabit the 9.5-acre project area, concentrating near the water source. Upland from the stream, native trees with a diameter-at-breast-height (dbh) of four feet or greater will not be removed, provided they do not significantly interfere with viewing the historic scene as determined by the park's historian.

The portion of the project area being cleared of woody vegetation under this alternative will necessarily be subjected to a certain amount of heavy equipment traffic and disturbance. Every effort will be made to keep the traffic and disturbance to a minimum. Immediately following clearing activities, artificial means for reducing erosion will be put in place in order to inhibit erosion prior to the grass seed germinating and becoming established.

Most of the vegetation within the project area will eventually be maintained as a mowed grassland, requiring a long-term commitment of resources from the park's maintenance division. Concurrently, however, the maintenance division has ceased maintaining four acres of land located nearby and lacking pertinent historic significance within the park. These four acres are being allowed to revegetate naturally, thus reducing the maintenance workload which can be shifted to the restored acres at Railroad Redoubt. The benefit of this area being set aside for revegetation will be the eventual formation of additional migratory bird habitat as the four acres mature over time.

The conversion of woodland to a maintained, sod-forming grass cover will have a beneficial effect on the rate of erosion within the project area. Turbidity levels within the wetland stream will be expected to improve over time. Likewise, the percentage of the project area infested with kudzu, an ecologically non-native species, will lessen dramatically once this alternative is implemented.

OTHER ALTERNATIVES CONSIDERED BUT NOT SELECTED

Alternative 1 (“No Action” Alternative)

Alternative 1 is the baseline condition against which proposed activities were compared. It is defined as continuing existing management practices into the future. The area would be kept wooded and treated primarily as a natural, as opposed to a historical, resource.

The trenches and ridgelines and their associated markers would remain hidden from view. The linear wetland that traverses the project area would retain a forested canopy. Gulleying and erosion would continue to slowly degrade the historic integrity of the area. Migratory and resident songbirds that utilize thick hardwood forests would continue to inhabit the project area. Exotic plants would continue to be monitored and efforts would be made to control or eliminate them. Park maintenance operations in the area would continue to consist of trimming back the woodline from currently maintained adjoining parcels. This alternative was not selected because it did not fully meet the objective of battlefield restoration while at the same time protecting natural resources to the fullest extent possible.

Alternative 2

The project area would be cleared of vegetation and replanted with Bermuda grass. Immediately following the clearing, a series of drift net fences or other appropriate technology would be utilized to inhibit erosion prior to the grass seed germinating and becoming established. In particular, care would be taken to prevent increased sedimentation of the wetland stream. Concurrent with this activity, mowing along an ecologically valuable 645-foot linear wetland area below Ft. Hill (in the northwest section of the park) would cease. This would allow vegetation to mature and follow a natural succession, thus eventually compensating for the loss of an overhanging canopy along the Railroad Redoubt stream. Much of the historic integrity of the cultural landscape at Railroad Redoubt would be restored. The woodland wildlife associated with this habitat would be negatively affected. There is, however, similar forested habitat adjacent to the project area, including four acres of new revegetation. All of the exotic vegetation growing in the project area would be removed. When compared against other mowing activities for which the park is responsible park maintenance operations would increase approximately .02% under this alternative. This alternative was not selected because it did not provide fully meet the objective of battlefield restoration while at the same time protecting natural resources to the fullest extent possible.

ENVIRONMENTALLY PREFERRED ALTERNATIVE

Alternative 3 is the environmentally preferred alternative. The environmentally preferred alternative is the alternative that will promote the national environmental policy as expressed by section 101 of the National Environmental Policy Act (NEPA). This includes alternatives that:

- 1) fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;
- 2) ensure for all Americans safe, healthful, productive, and esthetically and culturally pleasing surroundings;

- 3) attain the widest range of beneficial uses of the environment without degradation, risk of health or safety, or other undesirable and unintended consequences;
- 4) preserve important historic, cultural, and natural aspects of our national heritage and maintain, wherever possible, an environment that supports diversity and variety of individual choice;
- 5) achieve a balance between population and resource use that will permit high standards of living and a wide sharing of life's amenities; and
- 6) enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

In essence, the environmentally preferred alternative will be the one(s) 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”.

In this case, the selected alternative is also the environmentally preferred alternative for VNMP, since it best meets goals 1, 2, 3, and 4 described above. Important cultural resources identified in the park's enabling legislation (the cultural landscape) will be better protected and interpreted through limited battlefield restoration, while at the same time valuable wildlife habitat (namely a wetland) will be maintained in a natural condition. This alternative best protects and helps preserve the historic, cultural, and natural resources in the park for current and future generations.

THE PREFERRED ALTERNATIVE AND SIGNIFICANCE CRITERIA

As defined at 40 CFR, Sec. 1508.27, from the regulations of the Council on Environmental Quality that implement the provisions of NEPA, significance is determined by examining the following criteria:

Impacts that may be both beneficial and adverse. A significant effect may exist even if the federal agency believes that on balance the effect will be beneficial.

There are overall benefits to the human and natural environment at VNMP from the proposed action. The EA examined a variety of impact topics in detail and found both beneficial and adverse impacts are associated with the preferred alternative, though on balance the effect of instituting Alternative 3 will be beneficial.

The impact to visitors' use and experience of the park will be moderate and long term. Positive and/or negative connotations associated with this alternative will be highly subjective depending on the individual visitor's opinion(s). Those who value the park primarily for its shaded paths and wildlife may react negatively. Those who value the park as a site of historical significance and interpretive potential may react positively.

The impact to ecologically native vegetation will be moderate and long-term. The impacts will be in large part negative since there will be no “one-for-one” compensation for the area of cleared vegetation (other than four acres of revegetation currently occurring proximate to the project area). The effects of hardwood vegetation removal will be mitigated by a riparian corridor 100 feet wide being left along the wetland stream, as well as by trees with dbhs of four feet or greater being considered for exemption. Conversely, the impact to non-native vegetation will be positive. Kudzu, Chinese privet, and other exotic plant species currently present at Railroad Redoubt will be eliminated.

The degree to which the proposed action affects public health and safety.

The implementation phase of Alternative 3 will be short-lived, and the public will be excluded from the project area anytime work on the ground is in progress, therefore there will be no adverse effects to public health and safety.

Unique characteristics of the geographic area such as proximity to historic or cultural resources, parklands, prime farmlands, and wetlands, wild and scenic rivers, or ecologically critical areas.

As described in the EA, the intent of the action alternatives was to provide the maximum amount of protection to the important cultural and natural resources of the park. The national military park, taken as a whole, is a cultural landscape and therefore a cultural resource. Under Alternative 3 minor, long-term, positive impacts to the park’s cultural landscape will be realized. Clearing most of the 9.5 acres within the project area of trees and shrubs will help to unmask most of the cultural landscape features.

Impacts to wetlands present within the project area will be moderate, long-term, and largely positive. Although the project area will be cleared of most of its woody vegetation, a 100-foot-wide riparian corridor will be left uncleared along the 500-foot-long wetland stream. Trees up to twenty feet in height as measured from along the stream bank will be left untouched. The wooded corridor will continue to provide shade and an organic material source for the stream’s invertebrate fauna.

The degree to which the effects on the quality of the human environment are likely to be highly controversial.

During the public comment period of the EA, the park received comments from eighty-six respondents. Of these, twelve (or 14%) voiced concerns of varying degree regarding the implementation of Alternative 3. While some level of controversy is present, it does not rise to the level of “highly” controversial.

The degree to which the possible effects on the quality of the human environment are highly uncertain or involve unique or unknown risks.

There are no identified risks associated with the preferred alternative that are unique or unknown, and there were no effects associated with the preferred alternative that are

highly uncertain identified during the analysis for the EA or during the public review of the EA.

The degree to which the action may establish a precedent for future actions with significant effects, or represents a decision in principle about a future consideration.

VNMP is mandated through its enabling legislation to “...restor(e) the field to its condition at the time of the battle...” and “...to restore the forts and the lines of fortification, the parallels and the approaches of the two armies, or so much thereof as may be necessary to the purposes of this park...”. Park staff, in an effort to improve interpretation of the park, may consider more extensive battlefield rehabilitation between the historic Union and Confederate lines in the future. The EA, which addressed a 9.5-acre parcel, helped to identify and elucidate some of the issues, concerns, and potential mitigation measures that could arise if and when the park considers battlefield restoration in the more holistic context of overall park management. Future battlefield restoration operations will be explored via a public, formal, and comprehensive planning and compliance process. Prior to further battlefield restoration plans, the park’s first Cultural Landscape Report (CLR) will be developed. Preparation of the CLR will involve input from a variety of stakeholders including the State and Federal wildlife agencies and organizations who expressed interest throughout the current process.

The degree to which the action is related to other actions with individually insignificant but cumulatively significant impacts.

VNMP has taken or proposed several actions in recent years that add or detract from the effect of instituting Alternative 3. In the past six years the park has cleared nineteen acres of land of woody vegetation. Within the same time period, however, fourteen acres of park land have been allowed to naturally revegetate. Under Alternative 3, upwards of nine acres will be cleared, bringing the total acres cleared since 1998 to about twenty-eight. Each individual clearing or revegetation project proposed or accomplished within the boundaries of the park adds or subtracts to the total amount of wooded land as compared to maintained acreage. The effects of these projects accumulate, and their combined impact is greater than any impact any of the projects would have had if considered individually.

The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed on the National Register of Historic Places; or may cause loss or destruction of significant scientific, cultural, or historical resources.

The park in its entirety is listed on the National Register of Historic Places. It is one of the most densely monumented battlefields in the world, with 1,325 monuments, markers, tablets, and plaques dotting the historic landscape. The park also preserves nine historic fortifications; over twenty miles of reconstructed trenches, approaches, and parallels; fifteen historic bridges, six historic buildings; one hundred forty-one cannon; the U.S.S. Cairo gunboat; and the Vicksburg National Cemetery. Six hundred fifty-nine park structures are presently included on the list of Classified Structures. Three cultural

landscapes and a component landscape at the park are listed in the Cultural Landscapes Automated Inventory Management System. The EA was written in compliance with Section 106 of the National Historic Preservation Act. In a letter dated March 30, 2005, the Mississippi Department of Archives and History stated that the proposed action will have no adverse effect on the cultural resources of the park.

The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.

VNMP coordinated with both the U.S. Fish and Wildlife Service and the Mississippi Department of Wildlife, Fisheries, and Parks as part of the NEPA process, and neither agency responded with concerns regarding listed species known to inhabit the park with regard to implementing Alternative 3.

Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.

Implementation of Alternative 3 will not violate Federal, State, or local environmental protection laws.

Impairment.

In addition to reviewing the list of significance criteria, the National Park Service (NPS) has determined that implementation of the preferred alternative will not constitute an impairment to the critical resources and values of VNMP. This conclusion is based on a thorough analysis of the environmental impacts described in *Battlefield Restoration: Railroad Redoubt- Environmental Assessment*, subsequent public comment, relevant scientific studies, and the professional judgment of the decision-maker, guided by direction contained in *NPS Management Policies*. Although Alternative 3 will result in some minor to moderate adverse impacts to natural resources and park operations, in all cases these adverse impacts are the result of actions taken to preserve and restore overarching park resources and values. Overall, the preferred alternative will result in benefits to park resources and values, opportunities for their enjoyment, and it will not result in their impairment.

PUBLIC INVOLVEMENT

The EA was made available for public review and comment during a thirty-day period ending November 10, 2004. A legal notice announcing its availability was published in the local paper on October 12, 2004. An open house was held at park headquarters on October 28, 2004. Eighty-six respondents submitted comments on the EA. NPS responses to all of the substantive comments received are printed in the adjoining appendix. No changes to the text of the VNMP *Battlefield Rehabilitation: Railroad Redoubt- Environmental Assessment* resulted as a consequence of the public review.

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The Preferred Alternative does not constitute an action that normally requires preparation of an Environmental Impact Statement (EIS). The Preferred Alternative would not have a significant effect on the human environment. Adverse environmental effects that could occur are negligible to minor in intensity. There would be no significant impacts to public health or safety, threatened or endangered species, sites or districts listed in or eligible for listing in the National Register of Historic Places, or other unique characteristics of the region. No highly uncertain or controversial impacts, unique or unknown risks, significant cumulative impacts, or elements of precedence have been identified. Implementation of the action would not violate any federal, state, or local environmental protection law. Therefore, it has been determined that an EIS is not required for this project and thus will not be prepared.

Recommended:

Superintendent

Date

Approved:

Southeast Regional Director

Date