

## Section Two: Environmental Impacts of the Proposed Plan

### INTRODUCTION

Section Two evaluates the potential environmental impacts of the proposed plan described in Section One. The impact categories in this section correspond to the categories in Section One.

The impact categories used were determined by Council on Environmental Quality regulations and through observation of potentially affected resources on and adjacent to Booker T. Washington National Monument.

The laws and regulations that informed the impact analysis included:

- National Park Service Organic Act of 1916
- Booker T. Washington National Monument authorizing legislation and amendment
- Antiquities Act of 1906, as amended
- Historic Sites, Buildings and Antiquities Act of 1935, as amended
- General Authorities Act of 1970
- National Environmental Policy Act of 1969
- Council on Environmental Quality Regulations, as amended
- National Parks and Recreation Act of 1978
- Archaeological Resources Protection Act of 1979, as amended
- Administrative Procedures Act of 1979, as amended
- Fish and Wildlife Coordination Act of 1934, as amended
- Clean Water Act of 1977, as amended
- Federal Water Pollution Control Act of 1972, as amended
- Architectural Barriers Act of 1969
- Rehabilitation Act of 1973
- Americans with Disabilities Act of 1990
- U.S. Dept. of Transportation Act of 1966, Sec. 4(f)
- Clean Air Act Amendments of 1990, as amended
- National Historic Preservation Act of 1966, as amended

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- Land and Water Conservation Fund Act, as amended
- Archaeological and Historic Preservation Act of 1974, as amended
- Museum Properties Management Act of 1955, as amended
- Endangered Species Act of 1973, as amended
- Park Planning – Director’s Order 2
- National Environmental Policy Act Guidelines – NPS 12
- 1997 Cultural Resource Management Guidelines – Director’s Order 28
- Natural Resources Management Guideline – NPS 77
- Intergovernmental Review of Federal Programs – EO 12372
- Protection and Enhancement of Environmental Quality – EO 11991
- Protection of Wetlands – EO 11990
- Floodplain Management – EO 11988
- Environmental Justice in Minority and Low-Income Populations – EO 12898
- Potential Impacts to Sacred Sites – EO 13007
- Protection and Enhancement of Cultural Environment – EO 11593
- Commonwealth of Virginia Environmental Review Process
- Virginia Natural Heritage Program Guidelines, 1986

IMPACT CATEGORY	PROPOSED PLAN
<b>Historic Structures</b>	<p>Continued routine maintenance, repairs, and preservation would result in no impact to structures.</p> <p>Continued protection of the park's resources from vandalism would result in no impact on historic resources.</p> <p>Removal of maintenance functions from the former school would be a positive impact on that resource.</p> <p>Preparation of a National Register nomination for the former school in 2004 (when it becomes eligible) would be a moderate positive impact.</p> <p>Preparation of a Historic Resource Survey (HRS) and/or a Historic Structure Report (HSR) for the former school would be a positive impact that would help guide the rehabilitation activities described in the proposed plan.</p> <p>Using available documentation and first hand accounts, a portion of the former school would be restored to its 1950s appearance. The remainder of the building would continue to be used as administrative space. Restoration activities would constitute a positive impact on the resource.</p>
<b>Archeological Resources</b>	<p>Construction activities and associated ground disturbances would result in moderate to major impacts to potential archeological deposits in localized areas.</p> <p><i>Proposed Mitigation:</i> Before undertaking any ground-disturbing activity, the NPS would prepare Determinations of Eligibility and consult with the State Historic Preservation Office as to appropriate levels of documentation and mitigation.</p>
<b>Cultural Landscape</b>	<p>In addition, ongoing archeological investigations would be carried out as part of a comprehensive program to understand the park's cultural landscape. Archeological activities would be carried out throughout the site and incorporated as a prominent part of the interpretive program. Such investigations would pose a moderate to major impact on archeological deposits.</p> <p>Limited cultural landscape features could be "ghosted," marked, or reintroduced if substantial and compelling evidence were to be uncovered during the archeological work or related research.</p> <p><i>Proposed Mitigation:</i> Before undertaking any ground-disturbing activity for construction or investigative purposes, the NPS would prepare a Determination of Eligibility and consult with the State Historic Preservation Office as to appropriate levels of documentation and mitigation. Reintroduction of cultural landscape features would only be carried out if substantial evidence is found and such activity would significantly enhance visitors' understanding and appreciation of the site.</p>
<b>Museum Objects</b>	<p>Development of an updated collections policy, which links acquisitions and deaccessions more closely to the interpretive program, would result in a moderate positive impact. Acquisition of materials that fall within the revised scope of collections is encouraged for display and research purposes.</p> <p>Provisions for proper curatorial storage and display of archeological artifacts in the expanded visitor center and administrative and maintenance facility would result in a moderate positive impact on park collections.</p>
<b>Ethnographic Resources</b>	<p>Ongoing ethnographic research used to inform management and site interpretation would be a positive impact.</p>

Summary of Environmental Impacts Resulting from the Proposed Plan

IMPACT CATEGORY	PROPOSED PLAN
<p><b>Land Management</b></p>	<p>Introduction of new structures and removal of such vegetation as may be required by construction would result in moderate to major impacts to the visual and aesthetic values of localized areas within the park. Specific activities are described in the <i>Proposed Construction</i> section.</p> <p><i>Proposed Mitigation:</i> Any new facility would be sited so that impacts to natural resources are minimized. Appropriate design and landscaping techniques would be used to reduce visual intrusiveness.</p> <p>Patterns of forest and vegetation would continue to be maintained by agricultural lease, mowing, and natural processes in the woodland. This would not cause any impacts.</p> <p>Natural vegetative screening would be introduced as needed in certain sections of the park to address intrusions on its viewshed. The introduction of vegetation would impact the appearance of the park in those areas.</p> <p><i>Proposed Mitigation:</i> Vegetation would be selected based on its appropriateness to the cultural landscape of the park.</p> <p>Construction of facilities proposed in all action alternatives would have the potential to moderately impact land use in localized areas of the park.</p> <p><i>Proposed Mitigation:</i> Facilities would be sited to minimize clearing of woodland and to maintain open vistas where present. Efforts would be made to retain existing land uses, including agricultural leases, to the greatest extent possible.</p>
<p><b>Boundary</b></p>	<p>The proposed plan recommends the purchase of the 15-acre parcel of land adjacent to the park, which contains the remaining 7 acres of land that are historically associated with Washington's birth site.</p> <p>Purchase of this land by the park would protect and preserve a historic resource that contributes to the significance of the site. This action would ensure that use of the property would be compatible with the purposes of the park and would also provide a visual buffer from encroaching development along the northern boundary of the park. This would be a major positive impact on resource protection and visitor experience.</p>
<p><b>Park Setting and Viewshed</b></p>	<p>Encroachment by development extending from West Lake Corner would have the potential to impact the visual and aesthetic values of the park and the park's character and cultural landscape values.</p> <p><i>Proposed Mitigation:</i> Park would increase efforts to work with local officials to protect the park through zoning, setbacks, signage and site design regulations and through the application of open space preservation programs and landscaping.</p> <p>Vegetative buffers may be added if additional viewshed protection is required.</p>
<p><b>Threatened and Endangered Species</b></p>	<p>Selective clearing related to the construction of new trails, roads, parking, or buildings would have the potential to pose a moderate negative impact to wildlife habitat within localized areas of the park.</p> <p><i>Proposed Mitigation:</i> Although no threatened or endangered species have been found within the park to date, biological surveys would be conducted to ensure that no listed species would be affected prior to any construction-related activity. If such species are found within the park in the future, consultation with state and federal agencies would be carried out as appropriate.</p>

IMPACT CATEGORY	PROPOSED PLAN
<b>Biotic Communities</b>	<p>Expansion of natural resource inventory programs, increased monitoring, and determination of thresholds for action would result in a moderate positive impact to biotic communities.</p> <p>Development of a fire safety program for the park would result in a moderate positive impact.</p> <p>The addition of new trail segments would introduce a human presence into new areas of the park on a regular basis, which could disrupt current wildlife activity within those areas. Any negative impact would be minor. At its highest, visitation is anticipated to be no more than 20,000 additional visitors annually (double current visitation). This would amount to an average of 50-60 additional visitors daily, spread over 224 acres.</p> <p><i>Proposed Mitigation:</i> Using proposed baseline inventories, wildlife would be monitored. If sensitive species are found to be negatively impacted by human presence along the park's trails, circulation routes will be adjusted to accommodate them. Since such species have not been found within the park as of this date, the occurrence of such an impact has a low probability.</p> <p>Selective clearing related to the construction of new trails, roads, parking areas, or buildings would have the potential to pose a minor negative impact to wildlife habitat within localized areas of the park.</p> <p><i>Proposed Mitigation:</i> Inventories would be conducted to ensure that biotic communities would not be unduly affected by construction activities.</p> <p>Wherever possible, construction would be designed to fit the existing landscape. Buildings and trails would be sited in areas that minimize the clearing required.</p> <p>It is anticipated that the greatest amount of construction would necessitate the clearing of not more than five acres of woodland. This represents 3% of the 153-acres (approximate) of woodland now in the park.</p> <p>Substantial habitat within and outside the park boundary are available to wildlife species found within the project area. It is anticipated that these species would be able to adjust readily to this minor loss of habitat.</p>
<b>Air Quality</b>	<p>Cooperation with local officials to protect local air quality would result in a minor positive impact.</p> <p>Monitoring air pollutants would be undertaken, which would benefit resource protection efforts. This would be a minor positive impact.</p>
<b>Water Quality</b>	<p>Cooperation with local officials to protect local water quality would result in a minor positive impact.</p> <p>Relocation of eroded segments of the Jack-O-Lantern Branch Trail would result in a minor positive impact on water quality within the park. Prior to any design development, fragmented wetlands located along the creek would be surveyed and documented. Any new trail construction would be designed to avoid these wetlands.</p> <p>Managing pastures to minimize potential for soil erosion would be a minor positive impact on water quality.</p>
<b>Wetlands, Floodplains and Soils</b>	<p>Relocation of eroded portions of the Jack-O-Lantern Branch Trail away from Gills Creek is recommended by the proposed plan. Such activity would occur within the designated 100-year floodplain and could impact some fragmented wetlands seen in field review of the area.</p> <p><i>Proposed Mitigation:</i> Stabilize affected stream banks to mitigate effects of soil erosion on water quality. Provide vegetative cover and/or structural stream bank protection. Any new trail construction would be designed to avoid wetland areas</p>

Summary of Environmental Impacts Resulting from the Proposed Plan

IMPACT CATEGORY	PROPOSED PLAN
<p><b>Carrying Capacity</b></p>	<p>Moderate increases in visitor use are projected for the proposed plan. At its highest, visitation is anticipated to be no more than 20,000 additional visitors annually (double current visitation). This would amount to an average of 50-60 additional visitors daily.</p> <p>Expansion of visitor facilities, including interpretive space, program space, and parking would address current visitor use carrying capacity issues associated with these facilities.</p> <p>Increased access to trails and interpretive spaces would distribute visitors more widely throughout the site than at present. This would reduce the likelihood that undue pressure would be placed on resources in any given area. Consequently, no adverse impacts on resource protection related to carrying capacity are anticipated.</p> <p>The visitor center would be designed to accommodate up to 90 people, based on projections for highest periods of visitation use— summer weekends. The current visitor center accommodates 60 people. The parking lot would be expanded from 25 car spaces and 2 bus spaces to 40 car spaces and 3 bus spaces to accommodate increased parking demands.</p>
<p><b>Interpretive Program</b></p>	<p>Enhancements to the interpretive program would assist visitors in understanding the complexities of Washington's life. This would aid in fulfilling the park's mission and result in a positive impact on the visitor experience.</p> <p>Understanding and interpreting the site as a cultural landscape would be emphasized. Exhibits and other interpretive media would be used to show how the landscape illustrates themes relating to various periods of the site's use, and to explore issues associated with those periods—the plantation era, Jim Crow era, memorial era, and the era of NPS management. Research and investigative activities would result in an enhanced appreciation of the site and its resources. This would be a positive impact on resource protection and the visitor experience.</p>
<p><b>Orientation and Exhibits</b></p>	<p>Enhancements to the interpretive program would assist visitors in understanding the complexities of Washington's life. This would aid in fulfilling the park's mission and result in a positive impact on the visitor experience.</p> <p>Substantial expansion of the current visitor center would address current facility carrying capacity issues. The added space would allow for the expansion of exhibits, the introduction of interactive interpretive technology, and a dedicated program space for school groups. Such an expansion would result in a major positive impact on the visitor experience. Rehabilitation of the school for interpretation and educational programs would also result in an increase in public indoor space and would capitalize on the building's interpretive potential.</p>
<p><b>Educational Programs</b></p>	<p>Staff increases would allow for the significant expansion of research activities and educational programs in the park. Programs would incorporate the findings of archeological investigations and documentary sources. Through collaboration with partnering institutions (both NPS and non-NPS), the park would be able to diversify its exhibit and program offerings. Such improvements would be a positive impact on the visitor experience.</p>
<p><b>Research</b></p>	<p>Significant expansion of research activity on both Washington and the site would be a positive impact.</p>
<p><b>Living History Program</b></p>	<p>Living history would continue to serve as a supplementary interpretive tool for special programs and events. Continuation of this policy would not impact the visitor experience.</p> <p>Adhering to the park's current policy, farm animals would continue to reside in the park as part of the agricultural setting. Better integration of the animals into the interpretive program would be a positive impact.</p>

IMPACT CATEGORY	PROPOSED PLAN
<b>Visitor Center</b>	<p>The proposed plan recommends facility improvements to remedy the situation of overcrowding in the exhibit area and restrooms during group visits and limited opportunities for fully developing interpretive programs that require more than the limited lobby space now available. Such improvements would result in a major positive impact on park facilities, visitor use, and operations.</p> <p>Substantial expansion of the visitor center would address current facility carrying capacity issues, enabling groups to be accommodated with minimal impact on walk-in visitors. Additional exhibit and program space would be provided, which would support the expansion of the interpretive program. This would be a positive impact.</p>
<b>Former School</b>	<p>Rehabilitation and interpretation of the former school would increase public access to an historic resource and provide additional opportunities for educational programs. This would be a positive impact.</p> <p>Construction of a new maintenance facility would address safety issues and allow the school to be opened to the public on a regular basis. It would also address health considerations of having maintenance activities too close to office space. Relocation of the maintenance yard would remove a substantial visual intrusion from the school area, enabling the building to be better appreciated as a historic resource.</p>
<b>Administrative and Maintenance Space</b>	<p>Proposed increases in office, storage and maintenance space would enhance operational efficiency and result in a moderate positive impact.</p>
<b>Circulation and Parking</b>	<p>The proposed plan recommends improving the safety of the park entrance through signage and design strategies. This represents a positive impact on visitor use.</p> <p>The proposed plan recommends upgrading the parking lot to accommodate more cars during high visitation periods; better bus off-loading; and improved accommodations for over-sized vehicles (RVs, etc.). The overall impact would be moderately positive.</p> <p>Moderate increases in visitation are expected under the proposed plan. If visitation were to reach anticipated levels, it would result a .25 percent increase over existing traffic levels on U.S. Route 122. This represents a minor negative impact. Proposed construction of I-73 in the vicinity of the park poses an impact that would eclipse any action the park might undertake.</p> <p><i>Proposed Mitigation:</i> Consultation with VaDOT concerning improved park entrance access would occur.</p> <p>The proposed plan anticipates an average of 55 additional visitors per day or an increase of 27.4 cars per day. Some of the anticipated increase would be due to school groups. Their use of buses would reduce the estimated number of cars.</p> <p>The current visitor entrance would remain in the proposed plan. Improvements to approach signage and turn lanes at its intersection with Route 122 would address current traffic safety concerns. This would be a positive impact.</p> <p>Exploration of the site using the expanded system of trails would be an important element of this alternative, and trail accessibility would be a major concern. Creating a link between the school and the cabin area could impact visitors with physical disabilities due to the presence of a steep slope between the two portions of the site.</p> <p><i>Proposed Mitigation:</i> The connector road between the school and cabin area would remain in place, as would the current staff parking lot at the school. Visitors requiring assistance could drive to the upper parking lot. There they would have access to accessible trails around the school area.</p> <p>This alternative would require minimal changes to current circulation patterns. The present parking lot would be reconfigured in conjunction with the expansion of the visitor center. The parking area would be designed to accommodate anticipated increases in visitation. A dedicated school bus drop-off would be integrated into the design to address safety concerns associated with hosting school groups. Increases in the size and safety of the parking area would be a positive impact, because it would address the current problem with carrying capacity that occurs during special events and high periods of visitation.</p>