

ENVIRONMENTAL CONSEQUENCES



INTRODUCTION

The NEPA requires that environmental documents discuss the environmental impacts of a proposed federal action, feasible alternatives to that action, and any adverse environmental effects that cannot be avoided if a proposed action is implemented. In this case the proposed federal action would be the adoption of a GMP for the Tuskegee Airmen NHS. This chapter analyzes the environmental impacts of implementing the five alternatives on cultural resources, natural resources, the visitor experience, and the socioeconomic environment. The analysis is the basis for comparing the beneficial and adverse effects of implementing the alternatives.

Because of the general, conceptual nature of the actions described in the alternatives, the impacts of these actions are analyzed in general qualitative terms. Thus, this EIS should be considered a programmatic analysis. If and when site-specific developments or other actions are proposed for implementation subsequent to this GMP, appropriate detailed environmental and cultural compliance documentation will be prepared in accordance with NEPA and NHPA requirements.

Impact analysis discussions are organized by impact topic and then by alternative under each topic. Each alternative discussion also describes cumulative impacts and presents a conclusion. At the end of the chapter there is a brief discussion of unavoidable adverse impacts, irreversible and irretrievable commitments of resources, and the relationship of short-term uses of the environment

and the maintenance and enhancement of long-term productivity.

CUMULATIVE IMPACT ANALYSIS

A cumulative impact is described in the Council on Environmental Quality's regulation 1508.7 as follows:

Cumulative impacts are incremental impacts 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 action. Cumulative impacts can result from individually minor, but collectively significant, actions taking place over a period of time.

Guidance for assessing cumulative effects on historic properties is also provided in 36 CFR 800. To determine potential cumulative impacts, other projects within and surrounding the Tuskegee Airmen NHS were identified. The area included surrounding communities. Projects were identified by discussions with the NPS staff and representatives of county and town governments. Potential projects identified as cumulative actions included any planning or development activity that was currently being implemented, or would be implemented in the reasonably foreseeable future. Impacts of past actions were also considered in the analysis.

These actions are evaluated in conjunction with the impacts of each alternative to determine if they would have any cumulative

effects on a particular natural, cultural, or socioeconomic resource or visitor use. If the cumulative action is still in the early planning stages, the qualitative evaluation of cumulative impacts was based on a general description of the project.

Past Actions

The Tuskegee Airmen facilities were originally constructed on 781 acres of land purchased from a local farmer. The Tuskegee Institute was contracted by the U.S. Army to construct the airfield and establish the flight school. In 1945, the Army Air Corps school at Moton Field closed and the land was used by the Tuskegee Institute for private flying lessons and private aircraft storage. The Skyway Club at Moton Field was used as a nightclub for a period after the war and was later converted to overflow housing for students at the Tuskegee Institute. Little maintenance and upkeep was completed at Moton Field after World War II and many of the facilities deteriorated. During the 1950s, a golf course was developed at Moton Field for Tuskegee Institute faculty and those employed at the Veterans hospital. The Tuskegee Institute's School of Veterinary Medicine used Moton Field for animal research in the 1960s and 1970s. In 1972, 325 acres of Moton Field were transferred to the City of Tuskegee for the development of a municipal airport, which is currently in operation. During 1998, Public Law 105-355 established the Tuskegee Airmen NHS and the NPS acquired 44 acres of land from Tuskegee University and the City of Tuskegee to establish the

historic site (Pond and Company 2002).

The NPS has completed Phase 1 and Phase 2 of the preservation and rehabilitation of the Tuskegee Airmen NHS. Construction associated with Phase 1 included the restoration and rehabilitation of Hangar #1, restoration of historic landscape and furnishings, restoration of the exterior of the control tower, rehabilitation of the warehouse/vehicle storage, rehabilitation of the bath and locker building for administrative use, installation of drainage and stormwater retention structures, and the construction of some parking areas and grading of the remaining parking areas. Phase 2 included construction of a picnic area, construction of a service entrance, reconstruction of Hangar #2 and build out of the main hangar area for exhibits, restoration of the interior of the control tower, restoration of the tarmac, construction of bus parking, continued restoration of the historic landscape and furnishings, and construction of another portion of the automobile parking area. Visitor facilities would be provided and maintained throughout the core historic area in accordance with the DCP.

The Federal Aviation Administration (FAA) approved an Airport Improvement Plan grant for \$100,000 for Moton Field Municipal Airport that was recently used to install navigational aids, prepare environmental studies, and to complete an update to the Airport Master Plan Study (FAA 2003).

The Alabama Statewide Airport System Plan is a component of the first phase of a comprehensive study being conducted by Alabama

Department of Transportation (DOT) Aeronautics Bureau. The second phase of planning will involve development of capital improvement plans (CIPs) to prioritize improvements needed at each airport in Alabama, including Moton Field Municipal Airport. The city of Tuskegee received a \$5,556 grant from Alabama DOT in fiscal year (FY) 2003, as part of a \$1.5 million distribution over 44 airports statewide (Alabama DOT Aeronautics Bureau 2003).

Present Actions

A new separate entrance road to Moton Field Municipal Airport has recently been completed by the City of Tuskegee.

Future Actions

Phase 3 of the preservation and rehabilitation of the Tuskegee Airmen NHS has not yet been funded. Actions that would be completed as part of this phase include restoration of the tennis court surface, construction of a ghost structure (physical plant warehouse), and construction of some parking and pedestrian walkways.

The TANC would provide the story of the Tuskegee Airmen, emphasizing the past, present, and future of military aviation and training. The purpose of the TANC is to extend the ability of the NHS to relate the full story of the Tuskegee Airmen for visitors. The development and operation of the TANC would be dependent on strong participation and leadership from private and public sources. The primary partners recognized in PL 105-355 include the NPS, Tuskegee University, and Tuskegee Airmen, Inc. The partnership includes the establishment of a trust for TANC

and participation and assistance from a variety of private organizations, corporations, foundations, individuals, and federal, state, and local agencies.

The TANC would include a full-scale military museum, major exhibits with period military aircraft and equipment similar to those used by the Tuskegee Airmen in World War II, and an audiovisual presentation and interactive exhibits and programs. The TANC would also contain the Charles Alfred Anderson Department of Aviation Science and would eventually contain visitor contact information and orientation for the entire site, with a Tuskegee Airmen Memorial in the form of a Wall of Honor that would include a list of the names of all Tuskegee Airmen as well as a statue of "Chief" Anderson.

The TANC would be located close to the principal welcome and orientation areas and the Tuskegee Airmen Memorial. The site can accommodate the Airfield Operations component of Tuskegee University. If Tuskegee University elects to locate this component on the site, it would be separated visually and physically from the Historic Core Area so as to not interfere with the visitor understanding of this historic component of the site. Vehicle access and parking can be an extension of the primary public access system instituted by the NPS, with service access available from the southeast (Hartrampf 2004).

Proposed improvements to Moton Field Municipal Airport include extending the runway from 5,000 ft to 6,500 ft, installation of navigational aids and performing

various studies. The proposal for the runway improvements and extension has been submitted and approved by FAA; however, funds have not been allocated.

There are no transportation projects scheduled by Alabama DOT in the vicinity of the Tuskegee Airmen NHS within the next five years that would cumulatively add to the impacts of the alternatives implemented.

IMPAIRMENT OF NATIONAL HISTORIC SITE RESOURCES

In addition to determining the environmental consequences of implementing the preferred and other alternatives, NPS Management Policies 2006 requires analysis of potential effects to determine whether or not proposed actions would impair NHS resources and values.

The fundamental purpose of the National Park System, established by the Organic Act and reaffirmed by the General Authorities Act, as amended, begins with a mandate to conserve park system resources and values. NPS managers must always seek ways to avoid, or to minimize to the greatest degree practicable, adverse impacts on a park unit's resources and values. However, the laws do give the NPS the management discretion to allow impacts on park unit resources and values when necessary and appropriate to fulfill the purposes of the park unit, as long as the impact does not constitute impairment of the affected resources and values. Although Congress has given the NPS the management discretion to allow certain impacts within a park unit, that discretion is limited by the statutory requirement that the NPS must leave resources and

values unimpaired unless a particular law directly and specifically provides otherwise. The prohibited impairment is an impact that, in the professional judgment of the responsible NPS manager, would harm the integrity of the park unit's resources and values, including the opportunities that otherwise would be present for the enjoyment of those resources or values (NPS Management Policies 2006). An impact on any park unit's resource or value may constitute impairment. An impact would be more likely to constitute impairment to the extent it affects a resource or value whose conservation is:

- necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park unit;
- key to the natural or cultural integrity of the park unit or to opportunities for enjoyment of the park unit; or
- identified as a goal in the park unit's GMP or other relevant NPS planning documents.

Impairment may result from NPS activities in managing the park unit, visitor activities, or activities undertaken by concessionaires, contractors, and others operating in the park unit. A determination on impairment is made in the conclusion section in this document for each impact topic related to the NHS resources and values. An evaluation of impairment is not required for topics related to visitor use and experience (unless the impact is resource based), NPS operations, or the socioeconomic environment. When it is determined that an action(s) would have a moderate to major adverse effect, a

justification for "nonimpairment"
is made. Impacts of only
negligible or minor intensity are
not considered to result in
impairment.

METHODS AND ASSUMPTIONS FOR ANALYZING IMPACTS

The planning team based the impact analysis and the conclusions in this chapter largely on the review of existing literature and studies, information provided by experts in the NPS and other agencies and NHS staff insights and professional judgment. The team's method of analyzing impacts is further explained below. It is important to remember that all the impacts have been assessed assuming that mitigation measures would be implemented to minimize or avoid impacts. If mitigation measures described in the "Alternatives Including the Preferred Alternative" chapter were not applied, the potential for resource impacts and the magnitude of those impacts would increase.

Director's Order 12, "Conservation Planning, Environmental Impact Analysis, and Decision Making," presents an approach to identifying the duration (short or long term), type (adverse or beneficial), and intensity or magnitude (e.g., negligible, minor, moderate, or major) of the impact(s), and that approach has been used in this document. Direct and indirect effects caused by an action were considered in the analysis. Direct effects are caused by an action and occur at the same time and place as the action. Indirect effects are caused by the action and occur later in time or farther removed from the place, but are still reasonably foreseeable.

The impacts of the action alternatives describe the difference between implementing the no-action alternative and implementing each of the action

alternatives. To understand a complete "picture" of the impacts of implementing any of the action alternatives, the reader must also take into consideration the impacts that would occur under the no-action alternative.

CULTURAL RESOURCES

METHODOLOGY

The following discussion is an attempt to correlate the differing requirements of the NHPA and NEPA in a way that impacts (affects) cultural resources; they are presented in a thorough, thoughtful, and meaningful manner in this document and compliance with both laws is achieved. For these reasons, the impact criteria for cultural resources are presented in a different format from the other impact topics in this GMP/EIS.

To implement Section 106 of the NHPA, the Advisory Council on Historic Preservation (ACHP) has published regulations at 36 CFR 800. These regulations, entitled "Protection of Historic Properties," provide guidance for determining whether a historic property (a term that includes archeological sites, historic buildings, structures, landscapes, and districts and properties of traditional, religious, and cultural significance) is eligible for inclusion on the NRHP and provides a procedure for nominating such properties to the NRHP.

The regulations also explain what constitutes an impact or effect on a historic property listed on or eligible to be listed on the NRHP. Under Section 106, the effects on archeological resources, historic buildings and structures, and cultural landscapes were identified and evaluated by:

- Determining the area of potential effects;
- Identifying cultural resources present in the area of

potential effects that are either listed in or are potentially eligible to be listed in the NRHP;

- Applying the criteria of adverse effect to all of the listed or potentially eligible cultural resources that could be affected; and
- Considering ways to avoid, minimize, or mitigate adverse effects.

The following Section 106 definitions were used in this GMP/EIS to characterize the severity or intensity of effects on NRHP-listed or -eligible cultural resources.

- A determination of no historic properties affected means that either there are no historic properties present or there are historic properties present but the undertaking will have no effect on them (36 CFR 800.4(d)(1));
- A determination of no adverse effect means there is an effect, but that effect would not meet the criteria of an adverse effect; that is, it will not diminish the characteristics of the cultural resource that qualify it for inclusion in the NRHP (36 CFR 800.5(b));
- An adverse effect occurs whenever an impact alters, directly or indirectly, any characteristic of a cultural resource that qualifies it for inclusion in the NRHP. For example, this could include diminishing the integrity (or the extent to which a resource retains its historic appearance) of its location,

design, setting, materials, workmanship, feeling, or association. Adverse effects also include reasonably foreseeable effects caused by the alternatives that would occur later in time, be farther removed in distance, or be cumulative (36 CFR 800.5(a)(1)).

Because cultural resources are nonrenewable, all adverse effects on NRHP-eligible cultural resources in the NHS would be long-term and would have a high level of concern.

The Council on Environmental Quality (1978) regulations for implementing the NEPA and Director's Order 12 (NPS 2001) call for a discussion of the appropriateness of mitigation with an analysis of how effective the mitigation would be in reducing the intensity of a potential impact (for example, reducing the intensity of an impact from major to moderate or minor). However, any reduction in intensity of impact from mitigation is an estimate of the effectiveness of mitigation only under the National Environmental Policy Act. The level of effect as defined by Section 106 is not similarly reduced, because cultural resources are nonrenewable and adverse effects that consume, diminish, or destroy the original historic materials or form, will result in a loss in the integrity of the resource that can never be recovered. Therefore, even if actions determined to have an adverse effect under Section 106 may be mitigated, the effect remains adverse.

A Section 106 summary follows the cultural resource impact analysis for several of the alternatives.

The Section 106 summary is intended to meet the requirements of the NHPA and is an assessment of the effect of the undertaking (implementation of the alternative) of cultural resources, based on criteria of the effect and adverse effect in the Advisory Council's regulations.

This section provides an evaluation of potential effects on cultural resources within the area of potential effect. The cultural resource evaluations consist of comparing conditions that would occur under each of the alternatives to the no action alternative. Thresholds used for assessing the intensity of potential impacts on cultural resources are presented in the following sections, and include both NEPA and NHPA terminology. The major assumptions used in the analysis of effects on cultural resources were that the potential for adverse effects on these resources is related primarily to the degree of change or physical disturbance from such things as construction, facility operations, visitor use, and natural causes.

Alternatives involving higher levels of physical disturbance/change in relation to Alternative A, the No Action Alternative, have a higher potential to adversely affect cultural resources.

Specifically, the potential for an alternative to diminish the significance or integrity of the resource(s) to the extent that their NRHP eligibility is affected was used as the primary criteria for estimating effects. Beneficial effects were assessed based on the potential to maintain, preserve, or stabilize

resources. In addition, it was also assumed that development and implementation of resource inventories and other cultural resource-related plans would help avoid, minimize, or reduce the potential adverse effects of NPS actions. For typical mitigation measures please refer to Table 8 "Summary of Mitigation Measures and Best Management Practices" in Chapter 2.

For purposes of the impact analysis for cultural resources in this document, lands within the park boundaries and within the confines of the proposed Fern Lake acquisition will be considered as the area of potential effect.

Effects on virtually all cultural features other than vegetation components would be long-term effects because most cultural resources are non-renewable. These would include any effects on archeological, historic, or on non-vegetation elements of a cultural landscape.

ARCHEOLOGICAL RESOURCES

Certain important questions about human history can only be answered by the actual physical material of cultural resources. Archeological resources have the potential to answer, in whole or in part, such questions. An archeological site can be eligible for listing in the NRHP if the site has yielded, or is likely to yield, information important to prehistory or history. An archeological site can be nominated to the NRHP in one of three historic contexts or levels of significance: local, state, or national (NPS 2002).

Laws and regulations applicable to archeological resources, the methodology used to analyze

potential impacts of an action, and the area of potential effect are described above. For archeological resources, until a NRHP evaluation for any site was completed, it would be assumed that the site is eligible for listing on the register.

For purposes of analyzing impacts on archeological resources, thresholds of change for the intensity of an impact are based upon the potential of the site to yield information important to prehistory or history, as well as the probable historic context of the affected site. Impact thresholds for archeological resources eligible for/listed on the NRHP used to evaluate effects on archeological resources are defined below.

Negligible - Impact is at the lowest levels of detection - barely measurable, with no perceptible consequences, either adverse or beneficial, to archeological resources. For purposes of Section 106, the determination of effect would be no historic properties affected.

Minor adverse - The action would affect one or more archeological sites with modest data potential and no significant ties to a living community's cultural identity. The site disturbance would result in little, if any, loss of important information potential. For purposes of Section 106, the determination of effect would be no adverse effect.

Minor beneficial - The action would result in preservation of a site in its natural state. For purposes of Section 106, the determination of effect would be no adverse effect.

Moderate adverse - The action would affect one or more archeological sites with good data potential and possible ties to a living community's cultural identity. Site disturbance would be noticeable. For purposes of Section 106, the determination of effect would be an adverse effect.

Moderate beneficial - The alternative would noticeably enhance the protection or preservation of one or more archeological sites that are listed or are eligible for the NRHP. For purposes of Section 106, the determination of effect would be no adverse effect.

Major adverse - The action would impact one or more archeological sites or districts listed in, or eligible for the NRHP and/or that has possible ties to a living community's cultural identity, resulting in loss of site or district integrity. Site disturbance or resource degradation would be highly visible. For purposes of Section 106, the determination of effect would be an adverse effect.

Major beneficial - The alternative would substantially enhance the ability to protect and interpret important archeological resources and would foster conditions under which archeological resources and modern society can exist in productive harmony and fulfill the social, economic, and other requirements of present and future generations. For purposes of Section 106, the determination of effect would be no adverse effect.

Impacts from Implementing Alternative A - No Action

Archeological resources adjacent to or easily accessible from trails anywhere in the NHS could be vulnerable to surface disturbance, inadvertent damage, and vandalism. A loss of surface archeological materials, alteration of artifact distribution, and a reduction of contextual evidence could result. Continued ranger patrol and emphasis on visitor education would discourage vandalism and inadvertent destruction of cultural remains, therefore any adverse effects would be expected to be minimal, if any.

As appropriate, additional archeological surveys and/or monitoring would precede any ground disturbance associated with construction. National Register of Historic Places-eligible or listed archeological resources would be avoided to the greatest extent possible, but long-term, minor, and adverse effects could be expected. In the unlikely event that such resources could not be avoided, an appropriate mitigation strategy would be developed in consultation with the SHPO, although such mitigation activities would nevertheless result in an adverse effect to the archeological resources.

Cumulative Impacts. Past and ongoing construction in the NHS (e.g., the construction of visitor parking lots and memorial area) might have resulted in the disturbance and loss of some archeological resources during excavation and construction activities. In addition, agricultural practices, adjacent airport functions and the expansion of residential development near the NHS may also

have disturbed archeological resources. The continuation of such activities and the continuation of implementing the DCP could also result in future long-term, minor, and adverse effects on archeological resources in the region.

Continued monitoring of management and visitor actions at the NHS would help to identify and avoid any future adverse effects on archeological resources. The continued level of management actions under Alternative A could contribute long-term, minor, and adverse effects to the impacts of other past, present, and reasonably foreseeable actions occurring both within and outside the NHS. Thus, any adverse effects on archeological resources resulting from the implementation of Alternative A would be a very small component of the overall long-term, minor, and adverse cumulative impact.

Conclusion. Continued management actions under the no-action alternative would include finishing the construction projects required by the enabling legislation and outlined in the DCP, and long-term, minor, and adverse effects on archeological resources could be anticipated. In the unlikely event that impacts on NRHP-eligible or listed archeological resources could not be avoided, a memorandum of agreement, in accordance with 36 CFR Part 800.6, Resolution of Adverse Effects, would be negotiated between the NHS and the SHPO (and/or the ACHP, if necessary). The memorandum of agreement would stipulate how the adverse effects would be mitigated.

Because important archeological resources would be avoided during ground disturbing activities, there would be only long-term, minor, and adverse effects to a resource or value whose conservation is (1) necessary to fulfill specific purposes identified in the establishing legislation of the NHS; (2) key to the natural or cultural integrity of the NHS or to opportunities for enjoyment of the NHS; or (3) identified as a goal in the NHS's GMP or other relevant NPS planning documents. Thus, there would be no impairment of the NHS's resources or values.

Impacts from Implementing Alternative B

In this alternative, additional development of trails is proposed. Archeological resources adjacent to or easily accessible from trails anywhere in the NHS could be vulnerable to surface disturbance, inadvertent damage, and vandalism. A loss of surface archeological materials, alteration of artifact distribution, and a reduction of contextual evidence could result. Staff increases to accommodate this alternative and an enhanced emphasis on visitor education would discourage vandalism and inadvertent destruction of cultural remains, therefore any adverse effects would be expected to be minimal, if any.

As appropriate, additional archeological surveys and/or monitoring would precede any ground disturbance associated with construction. National Register of Historic Places-eligible or listed archeological resources would be avoided to the greatest extent possible, but long-term, minor, and adverse effects could be expected. In the unlikely

event that such resources could not be avoided, an appropriate mitigation strategy would be developed in consultation with the SHPO, although such mitigation activities would nevertheless result in an adverse effect to the archeological resources.

Cumulative Impacts. The cumulative impacts of Alternative B on archeological resources would be similar to those described for Alternative A. As described above, actions associated with the implementation of this alternative could potentially disturb archeological resources at the NHS. If NRHP-eligible or listed archeological resources could not be avoided, the impacts on such resources would be adverse. However, because archeological resources would be avoided to the greatest extent possible, the actions associated with the alternative would not be expected to contribute, or contribute only minimally, to the adverse effects of other past, present, and reasonably foreseeable actions occurring both within and outside the NHS. Monitoring of management and visitor actions at the NHS would help to identify and avoid any future adverse effects on archeological resources. Any adverse effects associated with Alternative B would be anticipated to be long-term and minor. Thus, any adverse effects on archeological resources resulting from implementing this alternative would be a very small component of the overall long-term, minor, and adverse cumulative effect.

Conclusion. The impact of implementing Alternative B could result in long-term, minor, and adverse effects on archeological resources. In the unlikely event that impacts on NRHP-eligible or

listed archeological resources could not be avoided, a memorandum of agreement, in accordance with 36 CFR Part 800.6, Resolution of Adverse Effects, would be negotiated between the NHS and the SHPO (and/or the ACHP, if necessary). The memorandum of agreement would stipulate how the adverse effects would be mitigated.

Because important archeological resources would be avoided during ground disturbing activities, there would be only long-term, minor, and adverse effects to a resource or value whose conservation is (1) necessary to fulfill specific purposes identified in the establishing legislation of the NHS; (2) key to the natural or cultural integrity of the NHS or to opportunities for enjoyment of the NHS; or (3) identified as a goal in the NHS's GMP or other relevant NPS planning documents. Thus, there would be no impairment of the NHS's resources or values.

Impacts from Implementing Alternative C

The impacts of Alternative C on archeological resources would be similar to those described for Alternative B. As appropriate, additional archeological surveys and/or monitoring would precede any ground disturbance associated with implementing this alternative including, excavation, construction, and demolition, (e.g., installing wayside exhibits or other media); constructing a maintenance storage shed; and establishing unpaved nature trails, and other paved trails. National Register of Historic Places-eligible or listed archeological resources would be avoided to the greatest extent possible, but long-term, minor,

and adverse effects could be expected. In the unlikely event that such resources could not be avoided, an appropriate mitigation strategy would be developed in consultation with the SHPO, although such mitigation activities would nevertheless result in an adverse effect to the archeological resources.

Cumulative Impacts. The cumulative impacts of Alternative C on archeological resources would be similar to those described for Alternative B.

Conclusion. The impacts of Alternative C on archeological resources would be similar to those described for Alternative B resulting in long-term, minor, and adverse effects on archeological resources.

Impacts from Implementing Alternative D - Agency and Environmentally Preferred Alternative

The impacts of Alternative D on archeological resources would be similar to those described for Alternative B. As appropriate, additional archeological surveys and/or monitoring would precede any ground disturbance associated with implementing this alternative including, excavation, construction, and demolition, (e.g., installing wayside exhibits or other media); constructing a maintenance storage shed, a small picnic area, amphitheater to accommodate 30, two VIP host pads, a small unpaved parking area, and an unpaved road; and establishing more unpaved nature trails and other paved trails than in Alternatives B and C. National Register of Historic Places-eligible or listed archeological resources would be avoided to the greatest extent possible, but

long-term, minor, and adverse effects could be expected. In the unlikely event that such resources could not be avoided, an appropriate mitigation strategy would be developed in consultation with the SHPO, although such mitigation activities would nevertheless result in an adverse effect to the archeological resources.

Cumulative Impacts. The cumulative impacts of Alternative D on archeological resources would be similar to those described for Alternative B.

Conclusion. The impacts of Alternative D on archeological resources would be similar to those described for Alternative B resulting in long-term, minor, and adverse effects on archeological resources.

Impacts from Implementing Alternative E

The impacts of Alternative E on archeological resources would be similar to those described for Alternative B. As appropriate, additional archeological surveys and/or monitoring would precede any ground disturbance associated with implementing this alternative including, excavation, construction, and demolition, (e.g., installing wayside exhibits or other media); constructing a maintenance storage shed, up to four picnic areas, a small restroom building, amphitheater to accommodate 60, four VIP host pads, paved parking areas, and a paved road; and establishing more unpaved nature trails and other paved trails than in Alternatives B, C, and D. National Register of Historic Places-eligible or listed archeological resources would be avoided to the greatest extent possible, but long-term, minor,

and adverse effects could be expected. In the unlikely event that such resources could not be avoided, an appropriate mitigation strategy would be developed in consultation with the SHPO, although such mitigation activities would nevertheless result in an adverse effect to the archeological resources.

Cumulative Impacts. The cumulative impacts of Alternative E on archeological resources would be similar to those described for Alternative B.

Conclusion. The impacts of Alternative E on archeological resources would be similar to those described for Alternative B resulting in long-term, minor, and adverse effects on archeological resources.

CULTURAL LANDSCAPES, INCLUDING HISTORIC BUILDINGS, STRUCTURES, AND DISTRICTS

Laws and regulations applicable to cultural landscapes, historic buildings, structures, and districts are described in the preceding section, as is the area of potential effect and the methodology used to analyze potential impacts.

As described in the section entitled "Servicewide Mandates and Policies," the National Park Service is required to protect cultural resources within the park. In instances where potential cultural landscapes, historic buildings, structures, or districts would be affected by a project, these resources would be identified, documented, and evaluated to determine significance and integrity to support eligibility for inclusion

in the NRHP; project designs would be revised accordingly. If the resource is determined eligible for the Register, an environmental assessment would be prepared, and the National Park Service would work with the state historic preservation officer(s) to help develop appropriate mitigation measures. For typical mitigation measures see Table 5 in Chapter 2.

Historic buildings, structures, and districts are vital components of the park's landscapes. For this reason, the following discussion will combine cultural landscapes with historic structures, buildings, and districts. The thresholds for this impact topic are presented below.

Negligible - The activity potentially would not cause effects to cultural landscapes, historic buildings, or districts that would alter any of the characteristics that would qualify the resource for inclusion in, or eligibility for, the NRHP. For purposes of Section 106, the determination would be no historic properties affected.

Minor adverse - The action would affect one or more features of a structure, building, district, or landscape, but it would neither alter its character-defining features, nor diminish the overall integrity of the property that qualify it for inclusion in, or eligibility for, the NRHP. For purposes of Section 106, the determination of effect would be no adverse effect.

Minor beneficial - The action would maintain and improve the character-defining features of the structure, building, or district in accordance with The

Secretary of the Interior's Standards for the Treatment of Historic Properties (NPS 2005). For purposes of Section 106, the determination would be no adverse effect.

Moderate adverse - The action would alter one or more character-defining features of the structure, building, district, or landscape. While the overall integrity of the resource would be diminished, the property would retain its NRHP eligibility. For purposes of Section 106, the determination would be an adverse effect.

Moderate beneficial - Positive actions would be taken to preserve and noticeably enhance character-defining elements of a structure, building, or district in accordance with The Secretary of the Interior's Standards for the Treatment of Historic Properties (NPS 2005). For purposes of Section 106, the determination would be no adverse effect.

Major adverse - The action would alter character-defining features of a structure, building, district, or landscape, seriously diminishing the overall integrity of the resource to the point where its NRHP eligibility may be questioned. For purposes of Section 106, the determination would be an adverse effect.

Major beneficial - The action would enhance the character-defining features of a structure, building, or district that represents important components of the nation's historic heritage and would foster conditions under which these cultural foundations of the nation and modern society could exist in

productive harmony and fulfill the social, economic, and other requirements of present and future generations. For purposes of Section 106, the determination of effect would be no adverse effect.

Impacts from Implementing Alternative A - No Action

Implementation of Alternative A would include the continuation of the restoration of the historic structures in the core historic area and the cultural landscape in accord with the enabling legislation and DCP. Historic structures and buildings would continue to be maintained in a manner that preserves their integrity and National Register eligibility. Existing buildings and ghost structures of non-extant buildings would continue to be preserved and interpreted, creating a long-term, moderate, and beneficial effect. Existing landscape features including roads, curbs and drainage structures, the cistern and well system, and historic plantings, would continue to be preserved and interpreted, creating a long-term, moderate, and beneficial effect to the cultural landscape. If funding and staff are increased as approved, continued maintenance of historic structures and landscapes would help to maintain the long-term, moderate, and beneficial effects.

To preserve and protect the NRHP-eligible or listed historic structures and cultural landscapes, all stabilization and preservation efforts, as well as daily, cyclical, and seasonal maintenance, would continue to be undertaken in accordance with the Secretary of the Interior's Standards for the Treatment of Historic Properties.

Cumulative Impacts. The adjacent Moton Field Municipal Airport consists of post-1950 structures and airport related features as well as the runway. The runway was originally shared between the airport and the pilot training school. The Moton Field Municipal Airport has plans to upgrade the facilities to include the installation of navigational aids and the extension of the runway from 5000 ft to 6500 ft. These improvements would be considered to have a long-term, minor, and adverse effect on the NHS because the airfield would continue to service small planes only, whose presence adds a sense of place to the area and gives the visitors a more visceral experience. Also, as per the DCP, a landscaping buffer would be planted to screen visitors from the contemporary visual intrusions of the non-historic airport.

The current management plan in use at the NHS mandates the stabilization and permanent preservation of historic structures located on the site. The completed restoration, rehabilitation, and interpretation of historic structures located on the site are in keeping with the Secretary of the Interior's Standards for the Treatment of Historic Properties resulting in no adverse effects. Consideration and planning for the continued use and maintenance of the site and the historic structures located there has been developed and implemented.

Currently, no new residential or commercial development has been undertaken in the NHS's viewshed. In the past, structures have been constructed near the NHS, but outside the site's viewshed resulting in negligible effects.

The current management plan in use at the NHS mandates the stabilization and permanent preservation of other landscape features located on the site. The completed restoration, rehabilitation, and interpretation of historic cultural landscape contained within the site are in keeping with the Secretary of the Interior's Standards for the Treatment of Historic Properties. Consideration and planning for the continued use and maintenance of the site has been developed and implemented resulting in long-term, moderate, and beneficial effects.

Because existing conditions would remain unchanged under the no-action alternative, implementing Alternative A would not contribute to the impacts of other past, present, and reasonably foreseeable actions. Therefore, the effects on historic structures and cultural landscapes will remain long-term, moderate, and beneficial under this alternative.

Conclusion. Continued management actions under the no-action alternative would include finishing the construction projects required by the enabling legislation and outlined in the DCP. Therefore, the result would be long-term, moderate, and beneficial effects on cultural landscapes, historic buildings, structures, and districts.

There would be no impairment of cultural landscapes, historic buildings, structures, and districts under Alternative A.

Impacts from Implementing Alternative B

Implementation of Alternative B would include the continuation of the restoration of the historic

structures in the core historic area and the cultural landscape in accord with the enabling legislation and DCP. Historic structures and buildings would continue to be maintained in a manner that preserves their integrity and National Register eligibility. Existing buildings and ghost structures of non-extant buildings would continue to be preserved and interpreted, creating a long-term, moderate, and beneficial effect. Existing landscape features including roads, curbs and drainage structures, the cistern and well system, and historic plantings, would continue to be preserved and interpreted, creating a long-term, moderate, and beneficial effect to the cultural landscape. If funding and staff are increased as approved, continued maintenance of historic structures and landscapes would help to maintain the long-term, moderate, and beneficial effects.

To preserve and protect the NRHP-eligible or listed historic structures and cultural landscapes, all stabilization and preservation efforts, as well as daily, cyclical, and seasonal maintenance, would continue to be undertaken in accordance with the Secretary of the Interior's Standards for the Treatment of Historic Properties.

In Alternative B, the area outside of the historic core and visitor areas would be kept largely undeveloped and natural in character and would emphasize the natural environment. Installing wayside exhibits or other media, constructing a maintenance storage shed, and establishing unpaved nature trails would not require the removal of any existing historic buildings or structures.

These activities would have negligible effects on historic structures.

Installing wayside exhibits or other media, constructing a maintenance storage shed, and establishing unpaved nature trails would occur outside of the viewshed of the historic core area and would be buffered by vegetation as suggested in the Cultural Landscape Report (CLR). The restoration of the cultural landscape to the greatest extent possible is recommended resulting in negligible effects to the cultural landscape.

Cumulative Impacts. The cumulative impacts of Alternative B on cultural landscapes, historic buildings, structures, and districts would be similar to those described for Alternative A.

Conclusion. The effects of implementing Alternative B, including finishing the construction projects required by the enabling legislation and outlined in the DCP, installing wayside exhibits or other media, constructing a maintenance storage shed, and establishing unpaved nature trails would be long-term, moderate, and beneficial on cultural landscapes, historic buildings, structures, and districts.

There would be no impairment of cultural landscapes, historic buildings, structures, and districts under Alternative B.

Impacts from Implementing Alternative C

In the vicinity of the core historic area, the effects of Alternative C on cultural landscapes, historic buildings, structures, and districts would be

similar to those described for Alternative B. Installing wayside exhibits or other media, constructing a maintenance storage shed, and establishing unpaved nature trails and other paved trails would not require the removal of any existing historic buildings or structures. These activities would have negligible effects on historic structures. No additional stabilization, rehabilitation, or restoration activities would occur in addition to those associated with Alternative B.

Installing wayside exhibits or other media, constructing a maintenance storage shed, and establishing unpaved nature trails and other paved trails would occur outside of the viewshed of the historic core area and would be buffered by vegetation as suggested in the CLR. The restoration of the cultural landscape to the greatest extent possible is recommended resulting in negligible effects to the cultural landscape.

Cumulative Impacts. The cumulative impacts of Alternative C on cultural landscapes, historic buildings, structures, and districts would be similar to those described for Alternative A.

Conclusion. The effects of Alternative C on cultural landscapes, historic buildings, structures, and districts would be similar to those described for Alternative B.

Impacts from Implementing Alternative D - Agency and Environmentally Preferred Alternative

In the vicinity of the core historic area, the effects of Alternative D on cultural

landscapes, historic buildings, structures, and districts would be similar to those described for Alternative B. Installing wayside exhibits or other media; constructing a maintenance storage shed, a small picnic area, amphitheater to accommodate 30, two VIP host pads, a small unpaved parking area, and an unpaved road; and establishing more unpaved nature trails and other paved trails than in Alternatives B and C would not require the removal of any existing historic buildings or structures. These activities would have negligible effects on historic structures. No additional stabilization, rehabilitation, or restoration activities would occur in addition to those associated with Alternative B.

Installing wayside exhibits or other media; constructing a maintenance storage shed, a small picnic area, amphitheater to accommodate 30, two VIP host pads, a small unpaved parking area, and an unpaved road; and establishing more unpaved nature trails and other paved trails than in Alternatives B and C would occur outside of the viewshed of the historic core area and would be buffered by vegetation as suggested in the CLR. The restoration of the cultural landscape to the greatest extent possible is recommended resulting in negligible effects to the cultural landscape.

Cumulative Impacts. The cumulative impacts of Alternative D on cultural landscapes, historic buildings, structures, and districts would be similar to those described for Alternative A.

Conclusion. The effects of Alternative D on cultural

landscapes, historic buildings, structures, and districts would be similar to those described for Alternative B.

Impacts from Implementing Alternative E

In the vicinity of the core historic area, the effects of Alternative E on cultural landscapes, historic buildings, structures, and districts would be similar to those described for Alternative B. Installing wayside exhibits or other media; constructing a maintenance storage shed, up to four picnic areas, a small restroom building, amphitheater to accommodate 60, four VIP host pads, paved parking areas, and a paved road; and establishing more unpaved nature trails and other paved trails than in Alternatives B, C, and D would not require the removal of any existing historic buildings or structures. These activities would have negligible effects on historic structures. No additional stabilization, rehabilitation, or restoration activities would occur in addition to those associated with Alternative B.

Installing wayside exhibits or other media; constructing a maintenance storage shed, up to four picnic areas, a small restroom building, amphitheater to accommodate 60, four VIP host pads, paved parking areas, and a paved road; and establishing more unpaved nature trails and other paved trails than in Alternatives B, C, and D would occur outside of the viewshed of the historic core area and would be buffered by vegetation as suggested in the CLR. The restoration of the cultural landscape to the greatest extent possible is recommended

resulting in negligible effects to the cultural landscape.

Cumulative Impacts. The cumulative impacts of Alternative E on cultural landscapes, historic buildings, structures, and districts would be similar to those described for Alternative A.

Conclusion. The effects of Alternative E on cultural landscapes, historic buildings, structures, and districts would be similar to those described for Alternative B.

NATURAL RESOURCES

Analysis of natural resources was based on research, knowledge of existing resources, and the best professional judgment of planners, biologists, and botanists who have experience with similar types of projects. Information on the Tuskegee Airmen NHS's natural resources was gathered from several sources. As appropriate, additional sources of data are identified under each topic heading.

Where possible, map locations of sensitive resources were compared with the locations of proposed developments and modifications. Predictions about short-term (less than one year) and long-term (one year or more) site impacts were based on previous studies of development impacts on natural resources.

WATER RESOURCES

Methodology

For the most part, potential impacts of actions comprising the alternatives cannot be defined relative to site-specific locations. Consequently, water resource impacts of the alternatives were assessed qualitatively.

Negligible – An action may have an effect on water resources or the timing or intensity of flows or the designated uses of the water resource but it would not be readily measurable or detectable.

Minor – An action would have measurable effects on water resources or the timing or intensity of flows or the designated uses of the water

resource. Effects could include increased or decreased loads of sediment, debris, chemical, or toxic substances, or pathogenic organisms.

Moderate – An action would have clearly detectable effects on water resources or the timing or intensity of flows and potentially would affect organisms or natural ecological processes or the designated uses of the water resource.

Major – An action would have substantial effects on water resources or the timing or intensity of flows and potentially would affect organisms or natural ecological processes or the designated uses of the water resource.

Impacts from Implementing Alternative A – No Action

The no-action alternative would not create any changes to current situations affecting water resources. Existing conditions and influences on hydrology and water resources would continue at the same level and intensity as they are now.

Cumulative Impacts. Agriculture, residential development, and commercial development use available water sources, and disrupt natural runoff and percolation patterns. The NPS has no control or jurisdiction over Uphapee Creek or its tributaries outside of the park boundaries. These effects have adverse impacts on water resources in the region; however, these effects are negligible.

This alternative would have no contribution to these effects, and

therefore there would be no cumulative effects.

Conclusion. The no-action alternative would have negligible adverse impacts on water resources in the Tuskegee Airmen NHS. Because this alternative would have negligible effects on water resources, there would be no cumulative effects. There would be no impairment of this resource.

Impacts from Implementing Alternative B

Implementing this alternative would result in negligible adverse impacts on water resources resulting from development in the Administration and Nature Discovery Zones. Development in the Administration Zone could include facilities such as parking lots, sidewalks, offices, storage buildings, maintenance, emergency, and similar structures to support park operational and administrative needs. Minimal development would be planned for the Nature Discovery Zone - up to 4,000 ft of natural trails and 10 wayside exhibits. No additional impervious surface would be added in the Nature Discovery Zone; therefore, no additional runoff or erosion is anticipated in this zone.

Due to the minimal amount of development planned for this alternative, negligible adverse impacts on water resources are anticipated.

Cumulative Impacts. The impacts of Alternative B on cumulative impacts on water resources would be similar to those described for Alternative A.

Conclusion. Alternative B would have negligible adverse impacts on water resources in the Tuskegee

Airmen NHS. Because this alternative would have negligible effects on water resources, there would be no cumulative effects. There would be no impairment of this resource.

Impacts from Implementing Alternative C

Implementing this alternative would result in negligible adverse impacts on water resources resulting from development in the Administration, Nature Discovery, and Historic 1945 Zones. Development in the Administration Zone could include facilities such as parking lots, sidewalks, offices, storage buildings, maintenance, emergency, and similar structures to support park operational and administrative needs. Inside the Nature Discovery Zone, visitor services and facilities could include up to 3,500 ft of natural trails, 300 ft of hardened trails, and 10 additional wayside exhibits. However, no additional impervious surface would be added in the Nature Discovery Zone; therefore, no additional runoff or erosion is anticipated in this zone. In Alternative C, the Historic 1945 Zone is larger than in Alternative B allowing for the broadest restoration and interpretative programs related to the Tuskegee Airmen story which could result in the additional loss or clearing of vegetation in the western portion of the site. No new developments or changes to existing developments are proposed in the Visitor Orientation Zone for Alternative C.

No new impacts to water resources would be expected as a result of implementing the Visitor Orientation Zone for Alternative C, because no new developments or changes to existing developments

are proposed under this alternative for this zone at Tuskegee Airmen NHS.

Due to the minimal amount of development planned for this alternative, negligible adverse impacts on water resources is anticipated.

Cumulative Impacts. The impacts of Alternative C on cumulative impacts on water resources would be similar to those described for Alternative A.

Conclusion. The impacts of Alternative C on water resources would be similar to those described for Alternative B.

Impacts from Implementing Alternative D - Agency and Environmentally Preferred Alternative

This alternative involves slightly more development than Alternatives B and C. Included in this alternative is a Recreation Zone located in the southeastern portion of the site. The Recreation Zone would allow low impact recreational activities (i.e., hiking, walking, nature viewing, and picnicking) and interpretative programs. Facilities in the Nature Discovery and Recreation Zones could include up to 5,000 ft of natural trails, 1,000 ft of hardened trails, 15 wayside exhibits, 3 kiosks, and a small group program area that could accommodate up to 30 people. Additional facilities and infrastructure that could be accommodated in the Recreation Zone in this alternative are picnic areas, unpaved roads, VIP/host pads, unpaved parking, and an open space for low impact recreation. As in Alternative C, the Historic 1945 Zone is larger than in Alternative B allowing for

the broadest restoration and interpretative programs related to the Tuskegee Airmen story which could result in the additional loss or clearing of vegetation in the western portion of the site. The area zoned as Administration is slightly larger than the other alternatives, but could include the same facilities as the other alternatives (i.e., parking lots, sidewalks, offices, storage buildings, maintenance, emergency, and similar structures to support park operational and administrative needs). No new developments or changes to existing developments are proposed in the Visitor Orientation Zone for Alternative D.

Due to the increase in development planned for Alternative D, short-term minor adverse impacts to water resources would be expected during construction of the facilities included in this alternative.

Cumulative Impacts. The impacts of Alternative D on cumulative impacts on water resources would be similar to those described for Alternative A.

Conclusion. Implementing Alternative D would have a short-term minor adverse impact on water resources. Although this alternative would have short-term minor adverse effects on water resources, the overall cumulative impacts would remain negligible and adverse. There would be no impairment of this resource.

Impacts from Implementing Alternative E

This alternative involves more development than the other alternatives. The Recreation Zone encompasses slightly more than half of the site, including most

of the eastern half of the site. This zone would allow low impact recreation activities and interpretive programs. Visitor services and facilities in this zone could include up to 5,000 ft of natural trails, 2,000 ft of hardened trails, 30 additional wayside exhibits, 5 kiosks, and a group program area that could accommodate up to 60 people. Additional facilities and infrastructure in this zone that may be accommodated includes paved parking, VIP/host pads with hookups, single lane paved roads, and picnic areas. Some areas in the Recreation Zone would be maintained as open areas or with other recreational facilities. As in Alternatives C and D, the Historic 1945 Zone is larger allowing for the broadest restoration and interpretative programs related to the Tuskegee Airmen story which could result in the additional loss or clearing of vegetation in the western portion of the site. The area zoned as Administration could include the same facilities as the other alternatives (i.e., such as parking lots, sidewalks, offices, storage buildings, maintenance, emergency, and similar structures to support park operational and administrative needs). No new developments or changes to existing developments are proposed in the Visitor Orientation Zone for Alternative E.

Due to the increase in development planned for Alternative E, short-term minor adverse impacts to water resources would be expected during construction of the facilities included in this alternative.

Cumulative Impacts. The impacts of Alternative E on cumulative impacts on water resources would

be similar to those described for Alternative A, except:

This alternative, in combination with the above adverse impacts on water resources, would result in a minor adverse cumulative impact; however, this alternative would contribute only a small portion of these effects.

Conclusion. Implementing Alternative E would have a long-term minor adverse impact on water resources. The overall cumulative impacts would be minor and adverse; this alternative's contribution to these effects would be relatively small. There would be no impairment of this resource.

WATER QUALITY

Methodology

For the most part, potential impacts of actions comprising the alternatives cannot be defined relative to site-specific locations. Consequently, water quality impacts of the alternatives were assessed qualitatively.

Negligible – Chemical, physical, or biological effects would not be detectable, or if detected (i.e., trace), would be considered slight, local (site-specific), and short-term.

Minor – Chemical, physical, or biological impacts would be detectable and short-term, but the effects would be localized. No mitigation measures associated with water quality would be necessary.

Moderate – Chemical, physical, or biological effects would be detectable, but would likely be short-term, and relatively local, although there could be

a regional effect. Mitigation measures associated with water quality would be necessary and the measures would likely succeed.

Major – Chemical, physical, or biological effects would be detectable, would have substantial consequences, and would be noticed on a regional scale. Mitigation measures associated with water quality would be necessary and the measures would not be guaranteed.

Impacts from Implementing Alternative A – No Action

The no-action alternative would not create any changes to current situations affecting water quality. Existing conditions and influences on hydrology and water quality would continue at the same level and intensity as they are now.

Cumulative Impacts. Agriculture, residential development, and commercial development use available water sources, and disrupt natural runoff and percolation patterns. Runoff from adjacent properties (i.e., expansion of the runway at Moton Field Municipal Airport and addition of an access road to the Airport) may contain metals or chemicals that adversely affect water quality in the vicinity of the Tuskegee Airmen NHS. These metals/chemicals can be transported by surface or subsurface flows. The NPS has no control or jurisdiction over Uphapee Creek or its tributaries outside of the park boundaries. These effects have adverse impacts on water quality in the region; however, these effects are negligible.

This alternative would have no contribution to these effects, and therefore there would be no cumulative effects.

Conclusion. The no-action alternative would have no new effect on water quality in the NHS. Because this alternative would have no effects on water quality, there would be no cumulative effects. There would be no impairment of this resource.

Impacts from Implementing Alternative B

Implementing this alternative would result in negligible adverse impacts on water quality resulting from development in the Administration and Nature Discovery Zones. Development in the Administration Zone could include facilities such as parking lots, sidewalks, offices, storage buildings, maintenance, emergency, and similar structures to support park operational and administrative needs. Minimal development would be planned for the Nature Discovery Zone - up to 4,000 ft of natural trails and 10 wayside exhibits. No additional impervious surface would be added in the Nature Discovery Zone; therefore, no additional runoff or erosion is anticipated in this zone.

The development planned under Alternative B could disrupt some surface water flow or groundwater percolation. There is also the concern of stormwater runoff from the newly developed impervious surfaces to potentially impact (i.e., sedimentation, turbidity) the water quality in Uphapee Creek. To control stormwater runoff from the newly developed impervious areas and to protect water quality, standards from the *Alabama Handbook for Erosion*

Control, Sediment Control and Stormwater Management on Construction Sites and Urban Areas, Volumes 1 and 2 would be followed (Alabama SWCC 2003). These rules require that a Construction Best Management Practices Plan (CBMPP) that is designed to minimize pollutant discharges in stormwater runoff to the maximum extent practicable during land disturbance activities be fully implemented and effectively maintained. Mitigation such as silt fencing and sediment dams would reduce the impacts of the development planned under this alternative on water quality.

No new impacts to water quality would be expected as a result of implementing the Historic 1945 Zone or the Visitor Orientation Zone for Alternative B, because no new developments or changes to existing developments are proposed under this alternative for these zones at the park.

Due to the minimal amount of development planned for this alternative and implementation of CBMPPs to prevent potential stormwater runoff to nearby streams, negligible adverse impacts on water quality are anticipated.

Cumulative Impacts. The impacts of Alternative B on cumulative impacts on water quality would be similar to those described for Alternative A.

Conclusion. Alternative B would have no new effect on water quality in the Tuskegee Airmen NHS. Because this alternative would have no effects on water quality, there would be no cumulative effects. There would be no impairment of this resource.

Impacts from Implementing Alternative C

This alternative would have impacts to water quality similar to Alternative B. Implementing this alternative would result in negligible adverse impacts on water quality resulting from development in the Administration, Nature Discovery, and Historic 1945 Zones. Development in the Administration Zone could include facilities such as parking lots, sidewalks, offices, storage buildings, maintenance, emergency, and similar structures to support park operational and administrative needs. Inside the Nature Discovery Zone, visitor services and facilities could include up to 3,500 ft of natural trails, 300 ft of hardened trails, and 10 additional wayside exhibits. However, no additional impervious surface would be added in the Nature Discovery Zone; therefore, no additional runoff or erosion is anticipated in this zone. In Alternative C, the Historic 1945 Zone is larger than in Alternative B allowing for the broadest restoration and interpretative programs related to the Tuskegee Airmen story which could result in the additional loss or clearing of vegetation in the western portion of the site. No new developments or changes to existing developments are proposed in the Visitor Orientation Zone for Alternative C.

The development planned under Alternative C could disrupt some surface water flow or groundwater percolation. There is also the concern of stormwater runoff from the newly developed impervious surfaces to potentially impact (i.e., sedimentation, turbidity) the water quality in Uphapee Creek. To control stormwater runoff from the newly developed

impervious areas and to protect water quality, standards from the *Alabama Handbook for Erosion Control, Sediment Control and Stormwater Management on Construction Sites and Urban Areas*, Volumes 1 and 2 would be followed (Alabama SWCC 2003). These rules require that a CBMPP that is designed to minimize pollutant discharges in stormwater runoff to the maximum extent practicable during land disturbance activities be fully implemented and effectively maintained. Mitigation such as silt fencing and sediment dams would reduce the impacts of the development planned under this alternative on water quality.

Due to the minimal amount of development planned for this alternative and implementation of CBMPPs to prevent potential stormwater runoff to nearby streams, negligible adverse impacts on water quality is anticipated.

Cumulative Impacts. The impacts of Alternative C on cumulative impacts on water quality would be similar to those described for Alternative A.

Conclusion. The impacts of Alternative C on water quality would be similar to those described for Alternative B.

Impacts from Implementing Alternative D - Agency and Environmentally Preferred Alternative

This alternative involves slightly more development than Alternatives B and C. Included in this alternative is a Recreation Zone located in the southeastern portion of the site. The Recreation Zone would allow low impact recreational activities

(i.e., hiking, walking, nature viewing, and picnicking) and interpretative programs. Facilities in the Nature Discovery and Recreation Zones could include up to 5,000 ft of natural trails, 1,000 ft of hardened trails, 15 wayside exhibits, 3 kiosks, and a small group program area that could accommodate up to 30 people. Additional facilities and infrastructure that could be accommodated in the Recreation Zone in this alternative are picnic areas, unpaved roads, VIP/host pads, unpaved parking, and an open space for low impact recreation. As in Alternative C, the Historic 1945 Zone is larger than in Alternative B allowing for the broadest restoration and interpretative programs related to the Tuskegee Airmen story which could result in the additional loss or clearing of vegetation in the western portion of the site. The area zoned as Administration is slightly larger than the other alternatives, but could include the same facilities as the other alternatives (i.e., parking lots, sidewalks, offices, storage buildings, maintenance, emergency, and similar structures to support park operational and administrative needs). No new developments or changes to existing developments are proposed in the Visitor Orientation Zone for Alternative D.

The development planned under Alternative D could disrupt some surface water flow or groundwater percolation. There is also the concern of stormwater runoff from the newly developed impervious surfaces to potentially impact (i.e., sedimentation, turbidity) the water quality in Uphapee Creek. To control stormwater runoff from the newly developed impervious areas and to protect

water quality, standards from the *Alabama Handbook for Erosion Control, Sediment Control and Stormwater Management on Construction Sites and Urban Areas*, Volumes 1 and 2 would be followed (Alabama SWCC 2003). These rules require that a CBMPP that is designed to minimize pollutant discharges in stormwater runoff to the maximum extent practicable during land disturbance activities be fully implemented and effectively maintained. Mitigation such as silt fencing and sediment dams would reduce the impacts of the development planned under this alternative on water quality.

Due to the increase in development planned for Alternative D, short-term minor adverse impacts to water quality would be expected during construction of the facilities included in this alternative. These impacts would result from potential sediment runoff into nearby waterways during the clearing of vegetation and construction/grading activities. These activities may result in increases in sediment input and turbidity in the tributaries to Uphapee Creek. However, due to the implementation of CBMPPs to minimize the potential effects of stormwater runoff to these streams, negligible short-term adverse impacts on water quality would be anticipated.

Cumulative Impacts. The impacts of Alternative D on cumulative impacts on water quality would be similar to those described for Alternative A.

Conclusion. The impacts of Alternative D on water quality would be similar to those described for Alternative B.

Impacts from Implementing Alternative E

This alternative involves more development than the other alternatives. The Recreation Zone encompasses slightly more than half of the site, including most of the eastern half of the site. This zone would allow low impact recreation activities and interpretive programs. Visitor services and facilities in this zone could include up to 5,000 ft of natural trails, 2,000 ft of hardened trails, 30 additional wayside exhibits, 5 kiosks, and a group program area that could accommodate up to 60 people. Additional facilities and infrastructure in this zone that may be accommodated include paved parking, VIP/host pads with hookups, single lane paved roads, and picnic areas. Some areas in the Recreation Zone would be maintained as open areas or with other recreational facilities. As in Alternatives C and D, the Historic 1945 Zone is larger allowing for the broadest restoration and interpretative programs related to the Tuskegee Airmen story which could result in the additional loss or clearing of vegetation in the western portion of the site. The area zoned as Administration could include the same facilities as the other alternatives (i.e., parking lots, sidewalks, offices, storage buildings, maintenance, emergency, and similar structures to support park operational and administrative needs). No new developments or changes to existing developments are proposed in the Visitor Orientation Zone for Alternative E.

The development planned under Alternative E could disrupt some surface water flow or groundwater percolation. There is also the

concern of stormwater runoff from the newly developed impervious surfaces to potentially impact (i.e., sedimentation, turbidity) the water quality in Uphapee Creek. To control stormwater runoff from the newly developed impervious areas and to protect water quality, standards from the *Alabama Handbook for Erosion Control, Sediment Control and Stormwater Management on Construction Sites and Urban Areas*, Volumes 1 and 2 would be followed (Alabama SWCC 2003). These rules require that a CBMPP that is designed to minimize pollutant discharges in stormwater runoff to the maximum extent practicable during land disturbance activities be fully implemented and effectively maintained. Mitigation such as silt fencing and sediment dams would reduce the impacts of the development planned under this alternative on water quality.

Due to the increase in development planned for Alternative E, short-term minor adverse impacts to water quality would be expected during construction of the facilities included in this alternative. These impacts would result from potential sediment runoff into nearby waterways during the clearing of vegetation and construction/grading activities. These activities may result in increases in sediment input and turbidity in the tributaries to Uphapee Creek. Even with the implementation of CBMPPs to minimize the potential effects of stormwater runoff to Uphapee Creek, minor short- and long-term adverse impacts to water quality would be anticipated due to the additional impervious surfaces (i.e., hardened trails, administrative facilities, paved parking, VIP/host pads with

hookups, single lane paved roads, picnic areas) planned for this alternative.

Cumulative Impacts. The impacts of Alternative E on cumulative impacts on water quality would be similar to those described for Alternative A, except:

This alternative, in combination with the above adverse impacts on water quality, would result in a minor adverse cumulative impact; however, this alternative would contribute only a small portion of these effects.

Conclusion. Implementing Alternative E would have a long-term minor adverse impact on water quality in the NHS. The overall cumulative impacts would be minor and adverse; this alternative's contribution to these effects would be relatively small. There would be no impairment of this resource.

FLOODPLAINS

Methodology

Negligible – An action that would cause no change in existing hydrologic functions, or the ability of a floodplain to convey flood waters.

Minor – An action that would cause no change in an existing floodplain area and function. Changes in floodplains would be measurable, although the changes would be small, would likely be short-term, and the effects would be localized.

Moderate – An action that would change an existing wetland area or floodplain function, but the impact could be mitigated by the creation of artificial wetlands, modification of proposed facilities in

floodplains, and creation of backwater habitats. Changes in floodplains would be measurable and long-term, but would tend to be local, although there would be potential for effects on a regional scale, depending on the extent of the effect on the watershed.

Major – An action that would have drastic consequences for an existing wetland area or floodplain function.

Impacts from Implementing Alternative A – No Action

There would be no new development or change in existing development in the floodplain. Therefore only negligible adverse impacts would occur under this alternative.

Cumulative Impacts. There are numerous projects on lands outside the NHS that could affect floodplains within the NHS. Agriculture, residential development, commercial development, expansion of the runway at Moton Field Municipal Airport, and addition of an access road to the Airport have had minor impacts on floodplains in the area. The NPS has no control or jurisdiction over Uphapee Creek or its tributaries outside of the park boundaries. This development has created permanent alterations that will continue to have adverse impacts on floodplain values. Alternative A would not contribute to these cumulative impacts.

Conclusion. This alternative would result in negligible long-term adverse impacts on floodplain values throughout the NHS. Cumulative impacts would include long-term minor adverse effects on floodplains because of actions outside the NHS. This alternative's contribution to these impacts would be negligible.

There would be no impairment of this resource.

Impacts from Implementing Alternative B

There would be no new development or change in existing development in the floodplain. Therefore only negligible adverse impacts would occur under this alternative.

Cumulative Impacts. The impacts of Alternative B on cumulative impacts on floodplains would be similar to those described for Alternative A.

Conclusion. This alternative would result in negligible long-term adverse impacts on floodplain values throughout the NHS. Cumulative impacts would include long-term minor adverse effects on floodplains because of actions outside the NHS. This alternative's contribution to these impacts would be negligible. There would be no impairment of this resource.

Impacts from Implementing Alternative C

There would be no new development or change in existing development in the floodplain. Therefore only negligible adverse impacts would occur under this alternative.

Cumulative Impacts. The impacts of Alternative C on cumulative impacts on floodplains would be similar to those described for Alternative A.

Conclusion. The impacts of Alternative C on floodplains would be similar to those described for Alternative B.

Impacts from Implementing Alternative D - Agency and Environmentally Preferred Alternative

Areas of the 100-year floodplain are located along the northern and western boundaries of the site. The northern portion of the Administration Zone for Alternative D includes a portion of the floodplain. The southern portion of the Administration Zone does not include any floodplain areas. The base flood elevation is 257 ft (FEMA 1982.) The northern area of the Administration Zone would need to be delineated for the base flood elevation and protection measures applied to avoid encroachment into the floodplain. Floodplains would be delineated by qualified NPS staff or a registered professional hydrologist and the results would be incorporated during the design phase as well as clearly marked before construction. There would be no new development in the floodplain for Alternative D. Therefore only negligible adverse impacts would occur under this alternative.

Cumulative Impacts. The impacts of Alternative D on cumulative impacts on floodplains would be similar to those described for Alternative A.

Conclusion. The impacts of Alternative D on floodplains would be similar to those described for Alternative B.

Impacts from Implementing Alternative E

Areas of the 100-year floodplain are located within the area zoned for Administration. The base flood elevation is 257 ft (FEMA 1982). The Administration Zone would need to be delineated for

the base flood elevation and protection measures applied to avoid encroachment into the floodplain. Floodplains would be delineated by qualified NPS staff or registered professional hydrologist and the results would be incorporated during the design phase as well as clearly marked before construction work. Due to the size of the area zoned as administration, it may not be possible to avoid development in the floodplain. This Administration Zone does not include an area along the southern portion of the site, which Alternative D does include.

Cumulative Impacts. There are numerous projects on lands outside the NHS that could affect floodplains within the NHS. Agriculture, residential development, commercial development, expansion of the runway at Moton Field Municipal Airport, and addition of an access road to the Airport have had minor impacts on floodplains in the area. The NPS has no control or jurisdiction over Uphapee Creek or its tributaries outside of the park boundaries. This development has created permanent alterations that will continue to have adverse impacts on floodplain values. Alternative E could contribute long-term minor adverse impacts to these cumulative impacts.

Conclusion. Implementing Alternative E would have a long-term minor impact on the floodplain in the NHS. The overall cumulative impacts would be minor and adverse; this alternative's contribution to these effects would be relatively small. There would be no impairment of this resource.

SOILS

Methodology

Predictions about site impacts were based on knowledge of impacts on natural resources from development of visitor and operations facilities under similar situations. The following categories were used to evaluate the potential impacts on soils:

Negligible - The impact on soil resources would not be measurable. Any effects on productivity or erosion potential would be slight.

Minor - An action would change a soil's profile in a relatively small area, but it would not appreciably change the productivity of the soil or increase the potential for erosion of additional soil.

Moderate - An action would result in a change in quantity or alteration of the topsoil, overall biological productivity, or the potential for erosion to remove small quantities of additional soil. Changes to localized ecological processes would be of limited extent.

Major - An action would result in a change in the potential for erosion to remove large quantities of additional soil or in alterations to topsoil and overall biological productivity in a relatively large area. Significant ecological processes would be altered, and landscape-level changes would be expected.

Impacts from Implementing Alternative A - No Action

No new impacts to soil would be expected as a result of implementing Alternative A, because no new developments or

changes to existing developments are proposed under this alternative at Tuskegee Airmen NHS. Impacts on soils from existing development would continue.

Cumulative Impacts. Actions that have occurred or will occur affecting soil resources include commercial and residential development on adjacent lands. Additionally, soil in the region has been historically affected by agriculture. Impacts from existing roads and developments would remain under the no-action alternative.

Currently there is human activity within Tuskegee Airmen NHS, concentrated where visitor facilities and historic displays are found. Maintenance of historic structures and construction of visitor facilities have taken place at the park over the years. Some of the park was cleared and graded to construct a parking facility, and other areas have been cleared and graded to restore or construct facilities at Tuskegee Airmen NHS.

Foreseeable future actions of continued development outside the Tuskegee Airmen NHS would adversely impact soils through compaction and displacement from construction of roads, residential development, commercial development, and associated infrastructure.

This alternative would not contribute to the impacts of other past, present, and reasonably foreseeable future actions, and therefore there would be no project-related cumulative impacts to soils.

Conclusion. This alternative would have no effect on soil at Tuskegee Airmen NHS because no new developments or changes to existing developments are proposed. Because this alternative would result in no new impacts or changes to soil in the region, there would be no cumulative impacts. There would be no impairment of this resource as a result of implementing this alternative.

Impacts from Implementing Alternative B

Implementing this alternative would cause changes to the soils at Tuskegee Airmen NHS. Alternative B would result in development of an Administration Zone and minimal development (i.e., trails and wayside exhibits) within the Nature Discovery Zone. Mitigation measures would be applied to minimize erosion during construction and operation of these zones. The Nature Discovery Zone could include development of up to 4,000 ft of natural trails and 10 wayside exhibits. Implementing the trails and wayside exhibits would result in short-term minor adverse impacts during construction, because soil would be displaced or disturbed. Long-term impacts to soil under Alternative B would be adverse but negligible and would result from visitor activities on the trails and at the wayside exhibits.

Development under this alternative would be concentrated in the Administration Zone. This area could include facilities such as parking lots, sidewalks, offices, storage buildings, maintenance, curatorial, emergency, and similar structures to support park

operational and administrative needs. Construction of the Administration Zone would result in short-term minor adverse impacts during construction as soils are compacted, displaced, and disturbed. Long-term minor adverse impacts associated with the development of the Administration Zone would result from compaction and displacement of soil in this zone.

No new impacts to soil would be expected as a result of implementing the Historic 1945 Zone or the Visitor Orientation Zone for Alternative B, because no new developments or changes to existing developments are proposed under this alternative for these zones at Tuskegee Airmen NHS. Impacts on soil from existing development would continue.

Cumulative Impacts. Soil in the region has been historically affected by agricultural, commercial, and residential land uses and development. There has been human activity within the Tuskegee Airmen NHS, concentrated where visitor facilities and historic displays are found. Maintenance of historic structures and construction of visitor facilities have taken place at Tuskegee Airmen NHS over the years. Some of the park was cleared and graded to construct a parking facility, and other areas have been cleared and graded to restore or construct facilities at Tuskegee Airmen NHS. These activities have adversely impacted soils, through compaction and displacement, to varying degrees. Impacts from existing roads and developments would remain.

Foreseeable future actions of continued development outside the Tuskegee Airmen NHS would

adversely impact soils through compaction and displacement from construction of roads, residential development, commercial development, and associated infrastructure.

This alternative, in combination with the other past, present, and reasonably foreseeable future actions in the region would result in minor adverse cumulative impacts; however, this alternative would contribute a small portion of these effects.

Conclusion. This alternative would result in long-term minor adverse impacts. The overall cumulative effect on soils would be minor and adverse; this alternative's contribution to these effects would be small. There would be no impairment of this resource as a result of implementing this alternative.

Impacts from Implementing Alternative C

This alternative would have impacts to soil similar to Alternative B. The Historic 1945 Zone is larger for this alternative allowing for the broadest restoration and interpretative programs related to the Tuskegee Airmen story. Inside the Nature Discovery Zone, visitor services and facilities vary slightly from Alternative B. This alternative could include up to 3,500 ft of natural trails, 300 ft of hardened trails, and 10 additional wayside exhibits. As with Alternative B, implementing the trails and wayside exhibits would result in short-term minor adverse impacts during construction, because soil would be compacted, displaced, or disturbed. Mitigation measures would be applied to minimize erosion during construction and

operation of this zone. In the Nature Discovery Zone, long-term impacts to soil under Alternative C would be negligible and would result from visitor activities on the trails and at the wayside exhibits.

Impacts from the expanded Historic 1945 Zone in Alternative C would have an impact on soils if further restoration and interpretative programs are developed in this zone. Therefore, activities in this zone could result in minor long-term adverse impacts to soils.

Impacts from the Administration Zone would be the same as Alternative B. Construction of the Administration Zone would result in short-term minor adverse impacts during construction as soils are compacted, displaced, and disturbed. Long-term minor adverse impacts associated with the development of the Administration Zone would result from compaction and displacement of soil in this zone. As with the Nature Discovery Zone mitigation measures would be applied to minimize erosion during construction and operation of this zone.

No new impacts to soils would be expected as a result of implementing the Visitor Orientation Zone for Alternative C, because no new developments or changes to existing developments are proposed under this alternative for this zone at Tuskegee Airmen NHS. Impacts on soils from existing development would continue.

Cumulative Impacts. The impacts of Alternative C on cumulative impacts on soils would be similar

to those described for Alternative B.

Conclusion. The impacts of Alternative C on soils would be similar to those described for Alternative B.

Impacts from Implementing Alternative D - Agency and Environmentally Preferred Alternative

This alternative differs from Alternative C in that it offers a Recreation Zone. The Recreation Zone would allow low impact recreational activities and interpretative programs including hiking, walking, nature viewing, picnicking, and similar outdoor recreation endeavors. Facilities in the Nature Discovery and Recreation Zones could include up to 5,000 ft of natural trails, 1,000 ft of hardened trails, 15 wayside exhibits, three kiosks, and a small group program area. Additional facilities and infrastructure that could be accommodated in the Recreation Zone in this alternative are picnic areas, unpaved roads, VIP/host pads, unpaved parking, and an open space. Constructing the visitor services and facilities in the Recreation Zone would result in short-term minor adverse impacts during construction as activities would disturb, compact, and displace soil. Long-term adverse minor impacts to soils would occur from increased impervious surface and activities on the trails, wayside exhibits, and the program area.

The Nature Discovery Zone would cover less of the park than Alternative C due to the addition of the Recreation Zone. Impacts in the Nature Discovery Zone would be similar to those described for Alternatives B and C and would

result in short-term minor adverse impacts during construction and long-term negligible adverse impacts from visitor activities on the trails, program area, and at the wayside exhibits.

Impacts from the expanded Historic 1945 Zone would have a similar impact on soils as Alternative C. Potential restoration and interpretative programs planned in this zone could result in minor long-term adverse impacts to soils.

Impacts from the Administration Zone would be similar to Alternatives B and C. The Administration Zone is slightly larger than the other alternatives and includes areas along the northern and southern boundaries of the site. Construction of the Administration Zone would result in short-term minor adverse impacts. Long-term minor adverse impacts would result from compaction and displacement of soil and the increase in impervious surface for this zone.

No new impacts to soils would be expected as a result of implementing the Visitor Orientation Zone for Alternative D, because no new developments or changes to existing developments are proposed under this alternative for this zone at Tuskegee Airmen NHS. Impacts on soils from existing development would continue.

Overall, long-term minor adverse impacts on the soil resources would be expected as a result of implementing Alternative D. However, mitigation measures would be applied to minimize erosion during construction and operation of all the zones proposed for this alternative.

Cumulative Impacts. The impacts of Alternative D on cumulative impacts on soils would be similar to those described for Alternative B.

Conclusion. The impacts of Alternative D on soils would be similar to those described for Alternative B.

Impacts from Implementing Alternative E

Alternative E would result in more changes in conditions affecting soils than would the other action alternatives. Alternative E offers the most recreational opportunities of all the alternatives outside of the historic core and visitor areas. The Visitor Orientation Zone is the largest of the alternatives. The Recreation Zone encompasses slightly more than half of the site, including most of the eastern half of the site. Visitor services and facilities in this zone could include up to 5,000 ft of natural trails, 2,000 ft of hardened trails, 30 additional wayside exhibits, 5 kiosks, and a group program area that could accommodate up to 60 people. Additional facilities and infrastructure in this zone that may be accommodated includes paved parking, VIP/host pads with hookups, single lane paved roads, and picnic areas.

This alternative does not have a Nature Discovery Zone.

Impacts from the Administration Zone would be the same as Alternatives B through D. Construction of the Administration Zone would result in short-term minor adverse impacts during construction and long-term minor adverse impacts as a result of increased impervious surface,

compaction, and displacement of soil for this zone.

Constructing the visitor services and facilities in the Recreation Zone would result in short-term moderate adverse impacts during construction due to soil disturbance, compaction, and displacement. Implementation of Alternative E would result in long-term moderate adverse impacts as a result of increased impervious surface associated with the potential development (i.e., trails, wayside exhibits, kiosks, paved parking, VIP/host pads, paved roads, and picnic areas) in the Recreation Zone. This alternative will result in a greater disturbed area than the other alternatives would.

No new impacts to soil would be expected as a result of implementing the Visitor Orientation Zone for Alternative E, because no new developments or changes to existing developments are proposed under this alternative for this zone at Tuskegee Airmen NHS. Impacts on soils from existing development would continue.

Impacts from the expanded Historic 1945 Zone would have a similar impact on soils as Alternative C and D. Potential restoration and interpretative programs planned in this zone could result in minor long-term adverse impacts to soils.

Cumulative Impacts. The impacts of Alternative E on cumulative impacts on soils would be similar to those described for Alternative B.

Conclusion. This alternative would result in long-term moderate adverse impacts on soils in the

Tuskegee Airmen NHS. The overall cumulative effect on soils would be minor and adverse; this alternative's contribution to these effects would be small. There would be no impairment of this resource as a result of this alternative.

VEGETATION AND WETLANDS

Methodology

Impacts were assessed qualitatively. Site-specific information was obtained from the *Cultural Landscape Report* (Pond and Company 2002). Predictions about impacts were based on previous studies of development impacts on natural resources.

Negligible – The impact on vegetation (individuals and/or communities) would not be measurable. The abundance or distribution of individuals would not be affected or would be slightly affected. Ecological processes and biological productivity would not be affected.

Minor – The impact would not necessarily decrease or increase the area's overall biological productivity. An action would affect the abundance or distribution of individuals in a localized area but would not affect the viability of local or regional populations or communities.

Moderate – The impacts would result in a change in overall biological productivity in a small area. An action would affect a local population sufficiently to cause a change in abundance or distribution, but it would not affect the viability of the regional population or communities.

Changes to ecological processes would be of limited extent.

Major – An action would result in a change to overall biological productivity in a relatively large area. An action affecting a regional or local population of a species sufficiently to cause a change in abundance or in distribution to the extent that the population or communities would not be likely to return to its/their former level (adverse), or would return to a sustainable level (beneficial). Significant ecological processes would be altered.

Impacts from Implementing Alternative A – No Action

There would be no new ground disturbance or other major changes resulting from implementing this alternative at the Tuskegee Airmen NHS. The no-action alternative would not result in any new changes to vegetation other than those brought about by natural environmental processes. Current management practices, policies, and park operations would continue to be implemented with no major changes from current levels. Further development of the park facilities would not occur and zoning would not be applied. There would be no impact to vegetation as a result of this alternative and vegetation communities at Tuskegee Airmen NHS would remain the same. Management programs for nonnative/exotic species would continue by using an integrated pest management (IPM) approach. There would be no new development or change in existing development in the wetlands.

Cumulative Impacts. Native vegetation in the region has been historically affected by agricultural, commercial, and

residential land uses and the introduction of nonnative species. From early Native American cultures through the Industrial era, humans have relied on vegetation for food, fuel, and shelter. As more people came into the region, nonnative plants came with them. These actions altered the vegetation in relatively small areas throughout much of the region.

More recently, restoration of the historic core area and development of the visitor orientation area have taken place at the park. To return the historic core area to the period of significance, most of the existing trees and shrubs outside of the historic core area have been removed. Open meadows were planted with native grass species, similar to the original 1944 landscape plan. These activities have caused impacts by disrupting or destroying native vegetation to varying degrees. Foreseeable future actions of further development outside the Tuskegee Airmen NHS, such as road construction, residential development, commercial development, and associated infrastructure, would also adversely impact vegetation. These activities have caused adverse impacts by disrupting or destroying native vegetation to varying degrees.

Seeds of nonnative plants carried by wind, animals, and humans have created infestations of noxious weeds and other invasive species that cause long-term adverse effects on native vegetation. The anticipated increase in visitation at Tuskegee Airmen NHS would most likely result in short-term adverse impacts such as additional vegetation trampling and increased social trails.

The establishment of the Tuskegee Airmen NHS has resulted in long-term beneficial impacts on vegetation through exotic species eradication efforts.

The no-action alternative would not add to these impacts, and thus there would be no project-related cumulative effect on native vegetative resources.

Conclusion. Implementing the no-action alternative would have no new impacts on native vegetation. The no-action alternative would not add to impacts from other activities in the region and, thus, there would be no project-related cumulative effect on native vegetation resources. Thus, there would be no impairment of this resource as a result of implementing this alternative.

Impacts of Implementing Alternative B

This alternative would have the most acreage in the Nature Discovery Zone, preserving native vegetative communities. The Nature Discovery Zone would cover approximately two-thirds of Tuskegee Airmen NHS, including most of the eastern half of the site and a smaller area in the western portion of the site, which is bisected by the entrance road. Inside the Nature Discovery Zone, visitor services and facilities could include up to 4,000 ft of natural trails and 10 additional wayside exhibits. Implementing the trails and wayside exhibits would result in short-term minor adverse impacts during construction as the construction area may be cleared to allow the passage of equipment and construction materials. There would be a long-term minor adverse impact to vegetation within the footprint of wayside displays and

trails since vegetation would be removed from these areas and would not recolonize.

Development under this alternative would be concentrated in the Administration Zone. This area could include facilities such as parking lots, sidewalks, offices, storage buildings, maintenance, curatorial, emergency, and similar structures to support park operational and administrative needs. The Administration Zone would be located just south of the parking area. It is partially developed with existing vegetation consisting of early successional species within a managed meadow. Due to the clearing of vegetation for the construction of the administration facilities, impacts would be short-term minor and adverse. The loss of vegetation from the construction of the administration facilities would result in minor long-term adverse impacts in this zone.

No new impacts to vegetation would be expected as a result of implementing the Historic 1945 Zone or the Visitor Orientation Zone for Alternative B, because no new developments or changes to existing developments are proposed under this alternative for these zones at Tuskegee Airmen NHS. Impacts on vegetation from existing development would continue.

Wetlands were not surveyed and have not been identified in the eastern portion of the Tuskegee Airmen NHS. Wetlands would need to be delineated and protection measures applied before constructing trails and wayside exhibits in the Nature Discovery Zone and before constructing administrative facilities in the Administrative Zone to avoid

impacting wetlands at the park. Wetlands would be delineated by qualified NPS staff or certified wetland specialists and clearly marked before construction work. Construction activities would be performed in a cautious manner to prevent damage caused by equipment, erosion, and siltation. There will be no development in wetlands at the Tuskegee Airmen NHS.

Cumulative Impacts. Native vegetation in the region has been historically affected by agricultural, commercial, and residential land uses and the introduction of nonnative species. From early Native American cultures through the Industrial era, humans have relied on vegetation for food, fuel, and shelter. As more people came into the region, nonnative plants came with them. These actions altered the vegetation in relatively small areas throughout much of the region.

More recently, restoration of the historic core area and development of the visitor orientation area have taken place at the park. To return the historic core area to the period of significance, most of the existing trees and shrubs outside of the historic core area have been removed. Open meadows were planted with native grass species, similar to the original 1944 landscape plan. These activities have caused impacts by disrupting or destroying native vegetation to varying degrees.

Foreseeable future actions of further development outside the Tuskegee Airmen NHS, such as road construction, residential development, commercial development, and associated infrastructure, would also

adversely impact vegetation. These activities have caused adverse impacts by disrupting or destroying native vegetation to varying degrees.

Seeds of nonnative plants carried by wind, animals, and humans have created infestations of noxious weeds and other invasive species that cause long-term adverse effects on native vegetation. The anticipated increase in visitation at Tuskegee Airmen NHS would most likely result in short-term adverse impacts such as additional vegetation trampling and increased social trails.

The establishment of the Tuskegee Airmen NHS has resulted in long-term beneficial impacts on vegetation through protection of native communities and exotic species eradication efforts.

This alternative, in combination with the above mentioned adverse impacts on vegetation, would result in a minor adverse cumulative impact; however, this alternative would contribute a small portion of these effects.

Conclusion. Implementing Alternative B would have long-term minor adverse impacts on vegetation from the construction of administrative facilities, trails, and wayside exhibits. However, establishment of this alternative would also result in long-term minor beneficial impacts to vegetation by preserving two-thirds of the park as a nature zone. This alternative would have no effect on wetlands in the Tuskegee Airmen NHS. The overall cumulative impacts would be minor and adverse; this alternative's contribution to these effects would be small. There would be no impairment of this resource as a

result of implementing this alternative.

Impacts of Implementing Alternative C

This alternative would have impacts to vegetation similar to Alternative B. The acreage of the Nature Discovery Zone would cover approximately half of Tuskegee Airmen NHS, less than Alternative B. In Alternative C, the Historic 1945 Zone is larger than in Alternative B allowing for the broadest restoration and interpretative programs related to the Tuskegee Airmen story. Inside the Nature Discovery Zone, visitor services and facilities could include up to 3,500 ft of natural trails, 300 ft of hardened trails, and 10 additional wayside exhibits. As with Alternative B, constructing the trails and wayside exhibits would result in short-term minor adverse impacts in the Nature Discovery Zone. In addition, the long-term effects on vegetation would be minor and adverse due to the loss of vegetation where trails would be put in and beneath the wayside exhibits. Visitor activities on the trails and at the wayside exhibits may also result in the trampling of some vegetation in the Nature Discovery Zone.

Impacts from the expanded Historic 1945 Zone in Alternative C could result in additional loss or clearing of vegetation in the western portion of the site. Vegetation in this area of the park consists of early and mid-successional species. Potential restoration and interpretative programs in this zone could result in minor long-term adverse impacts to vegetation.

Impacts to vegetation in the Administration Zone would be the

same as Alternative B. Construction of the Administration Zone would result in short-term minor adverse impacts to vegetation. Minor long-term adverse impacts to vegetation in the Administration Zone would also be expected.

No new impacts to vegetation would be expected as a result of implementing the Visitor Orientation Zone for Alternative C, because no new developments or changes to existing developments are proposed under this alternative for this zone at Tuskegee Airmen NHS. Impacts on vegetation from existing development would continue.

Wetlands were not surveyed and have not been identified in the eastern portion of the Tuskegee Airmen NHS. Wetlands would need to be surveyed and delineated and protection measures applied before constructing trails and wayside exhibits in the Nature Discovery Zone and before constructing administrative facilities in the Administrative Zone to avoid impacting wetlands at the park. Wetlands would be delineated by qualified NPS staff or certified wetland specialists and clearly marked before construction work. Wetlands have been surveyed and delineated in the western portion of the park; therefore wetlands that are located in the Historic 1945 Zone will be avoided for development related to the potential restoration and interpretative programs planned for this zone. Construction activities would be performed in a cautious manner to prevent damage caused by equipment, erosion, and siltation. There will be no development in wetlands at Tuskegee Airmen NHS.

Impacts from the expanded Historic 1945 Zone in Alternative C could result in additional loss or clearing of vegetation in the western portion of the site. Vegetation in this area of the park consists of early and mid-successional species. Potential restoration and interpretative programs in this zone could result in minor long-term adverse impacts to vegetation.

Cumulative Impacts. The impacts of Alternative C on cumulative impacts on vegetation and wetlands would be similar to those described for Alternative B.

Conclusion. Implementing Alternative C would have long-term minor adverse impacts on vegetation from the construction of administrative facilities, trails, and wayside exhibits. However, establishment of this alternative would also result in long-term beneficial impacts to vegetation by preserving half of the park as a nature zone. These beneficial impacts would be less than those described for Alternative B. This alternative would have no effect on wetlands in the Tuskegee Airmen NHS. The overall cumulative impacts would be minor and adverse; this alternative's contribution to these effects would be small. There would be no impairment of this resource as a result of implementing this alternative.

Impacts from Implementing Alternative D - Agency and Environmentally Preferred Alternative

This alternative balances preserving the natural environment and providing a variety of visitor experiences and recreational

opportunities. The Nature Discovery Zone would cover approximately one-third of the site and would surround a Recreation Zone in the southeastern portion of the site. The Recreation Zone would allow low impact recreational activities (i.e., hiking, walking, nature viewing, and picnicking) and interpretative programs. Facilities in the Nature Discovery and Recreation Zones could include up to 5,000 ft of natural trails, 1,000 ft of hardened trails, 15 wayside exhibits, 3 kiosks, and a small group program area that could accommodate up to 30 people. Additional facilities and infrastructure that could be accommodated in the Recreation Zone in this alternative are picnic areas, unpaved roads, VIP/host pads, unpaved parking, and an open space. As in Alternative C, the Historic 1945 Zone is larger than in Alternative B allowing for the broadest restoration and interpretative programs related to the Tuskegee Airmen story.

Impacts in the Nature Discovery Zone would be similar to those described for Alternatives B and C, but would be lessened due to the smaller size of the Nature Discovery Zone. Short-term minor adverse impacts to vegetation would be expected during construction of the trails and wayside exhibits. Minor long-term adverse impacts to wildlife would result from implementation of this zone due to the loss of vegetation where trails would be put in and beneath the wayside exhibits. Visitor activities on the trails and at the wayside exhibits may also result in the trampling of some vegetation in the Nature Discovery Zone.

Constructing the visitor services and facilities in the Recreation Zone would result in short-term minor adverse impacts to vegetation. Implementation of the Recreation Zone would result in long-term minor adverse impacts to vegetation because of the replacement of vegetation with impervious surface, including a picnic shelter and VIP/host pads, and an increase in unvegetated or managed vegetation areas, including single lane roads, unpaved parking areas, and open space for low impact recreation.

Impacts from the Administration Zone would be similar to Alternatives B and C. The area zoned as Administration is slightly larger than the other alternatives; therefore there would be a greater loss of vegetation to the Administration Zone under this Alternative. This zone would result in short-term minor adverse impacts during construction and minor long-term adverse impacts to vegetation as a result of increased impervious surfaces for the administrative facilities.

Impacts from the expanded Historic 1945 Zone would be similar to Alternative C. Potential restoration and interpretative programs in this zone could result in minor long-term adverse impacts to vegetation.

No new impacts to vegetation would be expected as a result of implementing the Visitor Orientation Zone for Alternative D, because no new developments or changes to existing developments are proposed under this alternative for this zone at Tuskegee Airmen NHS. Impacts on vegetation from existing development would continue.

Wetlands were not surveyed and have not been identified in the eastern portion of the Tuskegee Airmen NHS. Wetlands would need to be delineated and protection measures applied before constructing recreational facilities in the Recreation Zone, trails and other nature related facilities in the Nature Discovery Zone, and administrative facilities in the Administrative Zone to avoid impacting wetlands at the park. Wetlands would be delineated by qualified NPS staff or certified wetland specialists and clearly marked before construction work. Wetlands have been surveyed and delineated in the western portion of the park; therefore wetlands that are located in the Historic 1945 Zone will be avoided for development related to the potential restoration and interpretative programs planned for this zone. Construction activities would be performed in a cautious manner to prevent damage caused by equipment, erosion, and siltation. There will be no development in wetlands at the Tuskegee Airmen NHS.

Cumulative Impacts. The impacts of Alternative D on cumulative impacts on vegetation and wetlands would be similar to those described for Alternative B.

Conclusions. Implementing Alternative D would have a long-term minor adverse impact on vegetation. However, establishment of this alternative would also result in long-term beneficial impacts to vegetation by preserving one-third of the park as a nature zone. These beneficial impacts would be less than those described for Alternatives B and C. This

alternative would have no effect on wetlands in Tuskegee Airmen NHS. The overall cumulative impacts would be minor and adverse; this alternative's contribution to these effects would be small. There would be no impairment of this resource as a result of implementing this alternative.

Impacts from Implementing Alternative E

Alternative E would result in changes in conditions affecting vegetation. Alternative E offers the most recreational opportunities of all the alternatives outside of the core historic and visitor areas. The Historic 1945 Zone is slightly smaller than in Alternative C, but larger than in Alternatives B and D. The Visitor Orientation Zone is the largest of the alternatives that were zoned for administrative use in the other action alternatives. The Administrative Zone contains only the triangular area just east of the hangars that extends to the park boundary. The Recreation Zone encompasses slightly more than half of the site, including most of the eastern half of the site. This zone would allow low impact recreation activities and interpretive programs. Activities could include hiking, walking, nature viewing, picnicking, and similar outdoor recreation endeavors. Visitor services and facilities in this zone could include up to 5,000 ft of natural trails, 2,000 ft of hardened trails, 30 additional wayside exhibits, 5 kiosks, and a group program area that could accommodate up to 60 people. Additional facilities and infrastructure in this zone that may be accommodated includes paved parking, VIP/host pads with

hookups, single lane paved roads, and picnic areas. Some areas in the Recreation Zone would be maintained as open areas or with other recreational facilities. This alternative does not have a Nature Discovery Zone.

Impacts from the Administration Zone would be the same as Alternatives B, C, and D, but would affect a different area. Construction of the Administration Zone would result in short-term minor adverse impacts to vegetation during construction. Minor long-term adverse impacts to vegetation could be expected as a result of increased impervious surface in the Administration Zone.

Impacts from the expanded Historic 1945 Zone would be similar to Alternatives C and D. Potential restoration and interpretative programs in this zone could result in vegetation loss, which would result in minor long-term adverse impacts.

Constructing the visitor services and facilities in the Recreation Zone would result in short-term moderate adverse impacts during construction as vegetated areas are cleared for construction and construction equipment is brought into this zone. Implementation of Alternative E would result in long-term moderate adverse impacts to vegetation. This impact is mainly due to the absence of Nature Discovery Zone in this alternative. In addition, the increase in visitor activities (i.e., hiking, walking, nature viewing, picnicking, and similar outdoor recreation endeavors) and potential development (i.e., trails, wayside exhibits, kiosks, paved parking, VIP/host pads, paved roads, and picnic areas) in

the Recreation Zone would have a greater impact on existing vegetation than the other alternatives. This alternative would result in a greater disturbance to vegetation from increased visitor activities.

No new impacts to vegetation would be expected as a result of implementing the Visitor Orientation Zone for Alternative E, because no new developments or changes to existing developments are proposed under this alternative for this zone at Tuskegee Airmen NHS. Impacts on vegetation from existing development would continue.

Wetlands were not surveyed and have not been identified in the eastern portion of Tuskegee Airmen NHS. Wetlands would need to be delineated and protection measures applied before constructing recreational facilities in the Recreation Zone and administrative facilities in the Administrative Zone to avoid impacting wetlands at the park. Wetlands would be delineated by qualified NPS staff or certified wetland specialists and clearly marked before construction work. Wetlands have been surveyed and delineated in the western portion of Tuskegee Airmen NHS; therefore wetlands that are located in the Historic 1945 Zone will be avoided for development related to the potential restoration and interpretative programs planned for this zone. Construction activities would be performed in a cautious manner to prevent damage caused by equipment, erosion, and siltation. There will be no development in wetlands at the Tuskegee Airmen NHS.

Cumulative Impacts. The impacts of Alternative E on cumulative

impacts on vegetation and wetlands would be similar to those described for Alternative B.

Conclusion. Implementing Alternative E would have long-term moderate adverse impacts on vegetation. This alternative would have no effect on wetlands in Tuskegee Airmen NHS. The overall cumulative impacts would be minor and adverse. There would be no impairment of this resource as a result of implementing this alternative.

WILDLIFE

Methodology

Impacts on wildlife are closely related to impacts on habitat. The evaluation considered whether actions would be likely to displace some or all individuals of a species in Tuskegee Airmen NHS or would result in loss or creation of habitat conditions needed for the viability of local or regional populations. Impacts associated with wildlife might include any change in roosting or foraging areas, food supply, protective cover, or distribution or abundance of species.

Negligible – The impact would not be measurable on individuals, and the local populations would not be affected.

Minor – An action would affect the abundance or distribution of individuals in a localized area but would not affect the viability of local or regional populations.

Moderate – An action would affect a local population sufficiently to cause a minor change in abundance or distribution but would not affect the viability of the regional population.

Major – An action would affect a regional or local population of a species sufficiently to cause a change in abundance or in distribution to the extent that the population would not be likely to return to its former level (adverse), or would return to a sustainable level (beneficial).

Impacts from Implementing Alternative A - No Action

The no-action alternative would not result in any new changes in the current status of wildlife communities either in terms of species composition, habitat, or population dynamics other than those brought about by natural environmental processes. Current management practices, policies, and park operations would continue to be implemented with no major changes from current levels. Further development of park facilities would not occur and zoning would not be applied. Tuskegee Airmen NHS would continue its management, and education and interpretation. Visitor facilities would be provided and maintained. There would be no impact to wildlife as a result of this alternative, and wildlife would continue to utilize the park as habitat.

Cumulative Impacts. Regional wildlife populations have been historically affected by agricultural, commercial, and residential land uses and the introduction of nonnative species. There have been subsequent minor adverse impacts in the form of habitat loss or disruption associated with these uses. This alternative would not contribute to the impacts of other past, present, and reasonably foreseeable future actions; therefore, there would be no

project-related cumulative impacts on wildlife populations. Because this alternative would have no new changes on wildlife, there would be no cumulative impacts.

Conclusion. Implementing the no-action alternative would have no new effect on wildlife populations. Because this alternative would have no new changes on wildlife, there would be no cumulative impacts. There would be no impairment of this resource as a result of implementing this alternative.

Impacts from Implementing Alternative B

This alternative would have the most acreage in the Nature Discovery Zone that preserves native wildlife habitat. The Nature Discovery Zone would cover approximately two-thirds of Tuskegee Airmen NHS, including most of the eastern half of the site and a smaller area in the western portion of the site, which is bisected by the entrance road. Inside the Nature Discovery Zone, visitor services and facilities could include up to 4,000 ft of natural trails and 10 additional wayside exhibits. Implementing the trails and wayside exhibits would result in short-term minor adverse impacts during construction as the sounds and presence of heavy equipment and more humans would disturb and displace individual animals. Once the trails and waysides were constructed, the areas could be recolonized by wildlife such as birds, rodents, and other small mammals. Impacts to wildlife under Alternative B would be negligible. Negligible long-term adverse impacts to wildlife from visitor activities on the trails and at the wayside exhibits would be expected.

Development under this alternative would be concentrated in the Administration Zone. This area would include facilities such as parking lots, sidewalks, offices, storage buildings, maintenance, curatorial, emergency, and similar structures to support park operational and administrative needs. The Administration Zone would be located just south of the parking area. It is partially developed with existing wildlife habitat consisting of a managed meadow and early successional species. This area offers little value as wildlife habitat. Construction of the Administration Zone would result in short-term minor adverse impacts during construction as the sounds and presence of heavy equipment and more humans would disturb and displace individual animals. Little wildlife habitat is expected to remain after the Administration Zone is implemented. Minor long-term adverse impacts to wildlife from loss of habitat in the Administration Zone would be expected.

No new impacts to wildlife would be expected as a result of implementing the Historic 1945 Zone or the Visitor Orientation Zone for Alternative B, because no new developments or changes to existing developments are proposed under this alternative for these zones at Tuskegee Airmen NHS. Impacts on wildlife from existing development would continue.

Cumulative Impacts. Regional wildlife populations have been affected by agricultural, commercial, and residential land uses and the introduction of nonnative species. There have been subsequent minor adverse impacts in the form of habitat

loss or disruption associated with these uses. Establishment of this alternative will result in long-term beneficial impacts to wildlife by preserving two-thirds of the park as a nature zone. However, development in the Administration Zone would most likely result in minor adverse impacts to wildlife. This alternative, in combination with the other past, present, and reasonably foreseeable future actions in the region would result in negligible and adverse cumulative impacts; however, this alternative would contribute a small portion of these effects.

Conclusion. Implementing Alternative B would have long-term minor adverse impacts on wildlife populations. However, establishment of this alternative would also result in long-term beneficial impacts to wildlife by preserving two-thirds of the park as a nature zone. The overall cumulative impacts would be negligible and adverse; this alternative's contribution to these effects would be small. There would be no impairment of this resource as a result of implementing this alternative.

Impacts from Implementing Alternative C

This alternative would have similar impacts to wildlife as Alternative B. The acreage of the Nature Discovery Zone would cover approximately half of Tuskegee Airmen NHS, slightly less than Alternative B. In Alternative C, the Historic 1945 Zone is larger than in Alternative B allowing for the broadest restoration and interpretative programs related to the Tuskegee Airmen story. Inside the Nature Discovery Zone, visitor services and facilities could include up to 3,500 ft of natural

trails, 300 ft of hardened trails, and 10 additional wayside exhibits. As with Alternative B, implementing the trails and wayside exhibits would result in short-term minor adverse impacts during construction; however, long-term impacts to wildlife under Alternative C would be negligible. These long-term adverse impacts to wildlife would be from visitor activities on the trails and at the wayside exhibits in the Nature Discovery Zone.

Impacts from the expanded Historic 1945 Zone could have an impact on wildlife. Habitat in this area of the park consists of early and mid successional species. Potential restoration and interpretative programs in this zone could result in habitat loss, which would result in minor long-term adverse impacts to wildlife.

Impacts from the Administration Zone would be the same as Alternative B. Construction of the Administration Zone would result in short-term minor adverse impacts during construction. Minor long-term adverse impacts to wildlife from loss of habitat in the Administration Zone would be expected.

No new impacts to wildlife would be expected as a result of implementing the Visitor Orientation Zone for Alternative C, because no new developments or changes to existing developments are proposed under this alternative for this zone at Tuskegee Airmen NHS. Impacts on wildlife from existing development would continue.

Cumulative Impacts. Regional wildlife populations have been affected by agricultural, commercial, and residential land

uses and the introduction of nonnative species. There have been subsequent minor adverse impacts in the form of habitat loss or disruption associated with these uses. Establishment of this alternative will result in long-term beneficial impacts to wildlife by preserving half of the park as a Nature Discovery Zone. However, development in the Administration Zone would most likely result in minor adverse impacts to wildlife. This alternative, in combination with the other past, present, and reasonably foreseeable future actions in the region would result in negligible and adverse cumulative impacts; however, this alternative would contribute a small portion of these effects.

Conclusion. Implementing Alternative C would have long-term minor adverse impacts on wildlife populations. However, establishment of this alternative would also result in long-term beneficial impacts to wildlife by preserving half of the park as a Nature Discovery Zone. The overall cumulative impacts would be negligible and adverse; this alternative's contribution to these effects would be small. There would be no impairment of this resource as a result of implementing this alternative.

Impacts from Implementing Alternative D - Agency and Environmentally Preferred Alternative

This alternative balances preserving the natural environment and providing a variety of visitor experiences and recreational opportunities. The Nature Discovery Zone would cover approximately one-third of the site and would surround a Recreation Zone in the

southeastern portion of the site. The Recreation Zone would allow low impact recreational activities (i.e., hiking, walking, nature viewing, and picnicking) and interpretative programs. Facilities in the Nature Discovery and Recreation Zones would include up to 5,000 ft of natural trails, 1,000 ft of hardened trails, 15 wayside exhibits, 3 kiosks, and a small group program area that could accommodate up to 30 people. Additional facilities and infrastructure that could be accommodated in the Recreation Zone in this alternative are picnic areas, unpaved roads, VIP/host pads, unpaved parking, and an open space.

Impacts in the Nature Discovery Zone would be similar to those described for Alternatives B and C. Short-term minor adverse impacts to wildlife would be expected during construction. However, negligible long-term adverse impacts to wildlife would result from implementation of this zone.

Constructing the visitor services and facilities in the Recreation Zone would result in short-term minor adverse impacts to wildlife. Implementation of the Recreation Zone would result in long-term minor adverse impacts to wildlife due to the low impact recreational activities planned for this zone.

Impacts from the Administration Zone would be similar to Alternatives B and C. The area zoned as Administration is slightly larger than the other alternatives; therefore there would be a greater loss of habitat to the Administration Zone under this Alternative. This zone would result in short-term minor adverse impacts during construction and

minor long-term adverse impacts to wildlife for the implementation of the zone.

Impacts from the Historic 1945 Zone would be similar to Alternative C. Potential restoration and interpretative programs in this zone could result in habitat loss, which would result in minor long-term adverse impacts to wildlife.

No new impacts to wildlife would be expected as a result of implementing the Visitor Orientation Zone for Alternative D, because no new developments or changes to existing developments are proposed under this alternative for this zone at Tuskegee Airmen NHS. Impacts on wildlife from existing development would continue.

Cumulative Impacts. Regional wildlife populations have been affected by agricultural, commercial, and residential land uses and the introduction of nonnative species. There have been subsequent minor adverse impacts in the form of habitat loss or disruption associated with these uses. Establishment of this alternative would result in long-term beneficial impacts to wildlife by preserving one-third of the park as a nature zone. However, development in the Administration, Recreation, and Historic Zones would most likely result in short-term and long-term minor adverse impacts to wildlife. This alternative, in combination with the other past, present, and reasonably foreseeable future actions in the region would result in negligible and adverse cumulative impacts; however, this alternative would contribute a small portion of these effects.

Conclusion. Implementing Alternative D would have long-term minor adverse impacts on wildlife populations in the long-term. However, establishment of this alternative would also result in long-term beneficial impacts to wildlife by preserving one-third of the park as a nature zone. The overall cumulative impacts would be negligible and adverse; this alternative's contribution to these effects would be small. There would be no impairment of this resource as a result of implementing this alternative.

Impacts from Implementing Alternative E

Alternative E would result in changes in conditions affecting wildlife populations or their habitat. Alternative E offers the most recreational opportunities of all the alternatives outside of the core historic and visitor areas. The Historic 1945 Zone is slightly smaller than in Alternative C, but larger than in Alternatives B and D. The Visitor Orientation Zone is the largest of the alternatives that were zoned for administrative use in the other action alternatives. The Administrative Zone contains only the triangular area just east of the hangars that extends to the park boundary. The Recreation Zone encompasses slightly more than half of the site, including most of the eastern half of the site. This zone would allow low impact recreation activities and interpretive programs. Activities could include hiking, walking, nature viewing, picnicking, and similar outdoor recreation endeavors. Visitor services and facilities in this zone could include up to 5,000 ft of natural trails, 2,000 ft of hardened trails, 30 additional wayside exhibits, 5 kiosks, and a group

program area that could accommodate up to 60 people. Additional facilities and infrastructure in this zone that may be accommodated includes paved parking, VIP/host pads with hookups, single lane paved roads, and picnic areas. Some areas in the Recreation Zone would be maintained as open areas or with other recreational facilities.

Impacts from the Administration Zone would be the same as the other alternatives. Construction of the Administration Zone would result in short-term minor adverse impacts during construction. Minor long-term adverse impacts to wildlife from loss of habitat in the Administration Zone would be expected.

Impacts from the expanded Historic 1945 Zone would be similar to Alternatives C and D. Potential restoration and interpretative programs in this zone could result in habitat loss, which would result in minor long-term adverse impacts to wildlife.

Constructing the visitor services and facilities in the Recreation Zone would result in short-term minor adverse impacts during construction as the sounds and presence of heavy equipment and more humans would disturb and displace individual animals. Implementation of Alternative E would result in long-term moderate adverse impacts to wildlife. This impact is mainly due to the absence of the Nature Discovery Zone in this alternative. In addition, the increase in visitor activities (i.e., hiking, walking, nature viewing, picnicking, and similar outdoor recreation endeavors) and potential development (i.e., trails, wayside exhibits, kiosks, paved parking,

VIP/host pads, paved roads, and picnic areas) in the Recreation Zone will have more of an impact on wildlife and wildlife habitat than the other alternatives. This alternative will result in less available habitat for wildlife to utilize as well as more disturbances to existing wildlife from increased visitor activities.

No new impacts to wildlife would be expected as a result of implementing the Visitor Orientation Zone for Alternative E, because no new developments or changes to existing developments are proposed under this alternative for this zone at Tuskegee Airmen NHS. Impacts on wildlife from existing development would continue.

Cumulative Impacts. Regional wildlife populations have been affected by agricultural, commercial, and residential land uses and the introduction of nonnative species. There have been subsequent minor adverse impacts in the form of habitat loss or disruption associated with these uses. Development in the Administration Zone would most likely result in long-term minor adverse impacts and development in the Recreation Zone would result in long-term moderate adverse impacts to wildlife. This alternative, in combination with the other past, present, and reasonably foreseeable future actions in the region would result in minor and adverse cumulative impacts; however, this alternative would contribute a small portion of these effects.

Conclusion. Implementing Alternative E would have long-term moderate adverse impacts on wildlife populations. The overall cumulative impacts would be minor

and adverse. There would be no impairment of this resource as a result of implementing this alternative.

SPECIAL STATUS SPECIES

Methodology

Through coordination with the USFWS, federally listed species were identified that could be located in or near the Tuskegee Airmen NHS. U.S. Fish and Wildlife Service included information on each species, including their preferred habitat, prey, and foraging areas. For special status species, the following impact intensities were used. These definitions are consistent with the language used to determine effects on threatened and endangered species under Section 7 of the Endangered Species Act.

No effect – The action would cause no effect on the special status species or critical habitat.

Not likely to adversely affect – The action would be expected to result in discountable effects on a species or critical habitat (that is, unlikely to occur and not able to be meaningfully measured, detected, or evaluated), or it would be completely beneficial.

Likely to adversely affect – The action would result in a direct or indirect adverse effect on a species or critical habitat, and the effect would not be discountable or completely beneficial.

Impacts from Implementing Alternative A – No Action

This alternative would continue current management of the Tuskegee

Airmen NHS with no changes in wildlife management. Therefore, there would be no effect and no change from the current status of the federally listed southern clubshell mussel, ovate clubshell mussel, and the finelined pocketbook mussel from implementing this alternative.

Cumulative Impacts. Stormwater runoff, degraded water quality, and loss of habitat are some of the reasons aquatic species become threatened or endangered. In general, aquatic species are slowly becoming more impacted by human activity, causing individuals and populations to either adapt or decline in numbers. Increased stormwater runoff has occurred in the region as a result of commercial and residential development, road construction, and agriculture. Incremental development of the region has affected the abundance and diversity of aquatic species by impacting the water quality of the rivers and streams. However, due to the limited development in the vicinity of the park, water quality impacts are not expected to be significant. Therefore, the combination of these actions may cause negligible adverse impacts on special status species in the vicinity of the Tuskegee Airmen NHS.

Because this alternative would not contribute to the impacts of other past, present, and reasonably foreseeable future actions, there would be no project-related cumulative impacts on listed, candidate, or other special status species.

Conclusion. The no-action alternative would have no effect on the mussels in Uphapee Creek. Because this alternative would not

contribute to the impacts of other past, present, and reasonably foreseeable future actions, there would be no project-related cumulative impacts on listed species, candidate, or other special status species. No impairment of special status species would occur as a result of implementing the no-action alternative.

Impacts from Implementing Alternative B

Stormwater runoff from the newly developed impervious surfaces proposed under this alternative has the potential to impact (i.e., sedimentation, turbidity) the water quality in Uphapee Creek, potentially affecting the three mussel species. To control additional stormwater runoff from the newly developed impervious areas and to protect water quality, standards from the *Alabama Handbook for Erosion Control, Sediment Control and Stormwater Management on Construction Sites and Urban Areas*, Volumes 1 and 2 would be followed (Alabama SWCC 2003). These rules require that a CBMPP that is designed to minimize pollutant discharges in stormwater runoff to the maximum extent practicable during land disturbance activities be fully implemented and effectively maintained.

Development under this alternative would be concentrated in the Administration Zone. This area could include facilities such as parking lots, sidewalks, offices, storage buildings, maintenance, emergency, and similar structures to support park operational and administrative needs.

The Nature Discovery Zone would primarily consist of undeveloped

areas with some trails and wayside exhibits. No additional impervious surface would be added in the Nature Discovery Zone. No additional runoff or erosion is anticipated in this zone.

No new developments or changes to existing developments are proposed for the Historic 1945 Zone or the Visitor Orientation Zone for Alternative B.

Due to the minimal amount of development planned for this alternative and implementation of CBMPPs to minimize the potential effect of stormwater runoff impacts to the water quality of nearby streams, no effect on the special status species is expected.

Cumulative Impacts. The impacts of Alternative B on cumulative impacts on special status species would be similar to those described for Alternative A.

Conclusion. Alternative B would have no effect on the mussels in Uphapee Creek. Because this alternative would not contribute to the impacts of other past, present, and reasonably foreseeable future actions, there would be no project-related cumulative impacts on listed species, candidate, or other special status species. No impairment of special status species would occur as a result of implementing Alternative B.

Impacts from Implementing Alternative C

Stormwater runoff from the newly developed impervious surfaces proposed under this alternative has the potential to impact (i.e., sedimentation, turbidity) the water quality in Uphapee Creek, potentially effecting the three

mussel species. To control additional stormwater runoff from the newly developed impervious areas and to protect water quality, standards from the *Alabama Handbook for Erosion Control, Sediment Control and Stormwater Management on Construction Sites and Urban Areas*, Volumes 1 and 2 would be followed (Alabama SWCC 2003). These rules require that a CBMPP that is designed to minimize pollutant discharges in stormwater runoff to the maximum extent practicable during land disturbance activities be fully implemented and effectively maintained.

Development under this alternative would also be concentrated in the Administration Zone. This area could include facilities such as parking lots, sidewalks, offices, storage buildings, maintenance, emergency, and similar structures to support park operational and administrative needs.

The potential restoration and interpretative programs planned for the expanded Historic 1945 Zone could result in additional loss or clearing of vegetation in the western portion of the site.

No new developments or changes to existing developments are proposed for the Visitor Orientation Zone for Alternative C.

The acreage of the Nature Discovery Zone would cover approximately half of Tuskegee Airmen NHS, slightly less than Alternative B. Inside the Nature Discovery Zone, visitor services and facilities could include up to 3,500 ft of natural trails, 300 ft of hardened trails, and 10 additional wayside exhibits. The Nature Discovery Zone would

primarily consist of undeveloped areas with some trails and wayside exhibits.

Due to the minimal amount of development planned for this alternative and implementation of CBMPPs to prevent potential stormwater runoff impacts to the water quality of nearby streams, no effect on the special status species is expected.

Cumulative Impacts. The impacts of Alternative C on cumulative impacts on special status species would be similar to those described for Alternative A.

Conclusion. The impacts of Alternative C on special status species would be similar to those described for Alternative B.

Impacts from Implementing Alternative D - Agency and Environmentally Preferred Alternative

This alternative balances preserving the natural environment and providing a variety of visitor experiences and recreational opportunities. Stormwater runoff from the newly developed impervious surfaces proposed under this alternative has the potential to impact (i.e., sedimentation, turbidity) the water quality in Uphapee Creek potentially affecting the three mussel species. In addition, impacts to water quality would be expected during construction of the facilities; however, these impacts are not likely to adversely affect the three mussel species. To control stormwater runoff from the newly developed impervious areas and to protect water quality, standards from the *Alabama Handbook for Erosion Control, Sediment Control and Stormwater Management on Construction Sites*

and Urban Areas, Volumes 1 and 2 would be followed (Alabama SWCC 2003). These rules require that a CBMPP that is designed to minimize pollutant discharges in stormwater runoff to the maximum extent practicable during land disturbance activities be fully implemented and effectively maintained.

The area zoned as Administration for this alternative is slightly larger than the other alternatives. This area could include facilities such as parking lots, sidewalks, offices, storage buildings, maintenance, emergency, and similar structures to support park operational and administrative needs.

The potential restoration and interpretative programs planned for the expanded Historic 1945 Zone could result in additional loss or clearing of vegetation in the western portion of the site.

No new developments or changes to existing developments are proposed for the Visitor Orientation Zone for Alternative D.

The Nature Discovery Zone would cover approximately one-third of the site. Development in the Nature Discovery and Recreation Zones could include up to 5,000 ft of natural trails, 1,000 ft of hardened trails, 15 wayside exhibits, 3 kiosks, and a small group program area that could accommodate up to 30 people. The Recreation Zone would allow low impact recreational activities (i.e., hiking, walking, nature viewing, and picnicking) and interpretative programs. Additional facilities and infrastructure that could be accommodated in the Recreation Zone in this alternative are

picnic areas, unpaved roads, VIP/host pads, unpaved parking, and an open space.

Even though this alternative involves more development at the Tuskegee Airmen NHS, the implementation of CBMPPs to minimize potential stormwater impacts to the water quality of nearby streams, no effect on the special status species in Uphapee Creek is expected for this alternative.

Cumulative Impacts. The impacts of Alternative D on cumulative impacts on special status species would be similar to those described for Alternative A.

Conclusion. The impacts of Alternative D on special status species would be similar to those described for Alternative B.

Impacts from Implementing Alternative E

Alternative E offers the most recreational opportunities of all the alternatives outside of the core historic and visitor areas. Stormwater runoff from the newly developed impervious surfaces proposed under this alternative has the potential to impact (i.e., sedimentation, turbidity) the water quality in Uphapee Creek potentially effecting the three mussel species. In addition, impacts to water quality would be expected during construction of the facilities; however, these impacts are not likely to adversely affect the three mussel species. To control stormwater runoff from the newly developed impervious areas and to protect water quality, standards from the *Alabama Handbook for Erosion Control, Sediment Control and Stormwater Management on Construction Sites and Urban*

Areas, Volumes 1 and 2 would be followed (Alabama SWCC 2003). These rules require that a CBMPP that is designed to minimize pollutant discharges in stormwater runoff to the maximum extent practicable during land disturbance activities be fully implemented and effectively maintained.

The area zoned as Administration for this alternative could include facilities such as parking lots, sidewalks, offices, storage buildings, maintenance, emergency, and similar structures to support park operational and administrative needs.

The potential restoration and interpretative programs planned for the expanded Historic 1945 Zone could result in additional loss or clearing of vegetation in the western portion of the site.

No new developments or changes to existing developments are proposed for the Visitor Orientation Zone for Alternative E.

The Recreation Zone encompasses slightly more than half of the site, including most of the eastern half of the site. This zone would allow low impact recreation activities and interpretive programs. Visitor services and facilities in this zone could include up to 5,000 ft of natural trails, 2,000 ft of hardened trails, 30 additional wayside exhibits, 5 kiosks, and a group program area that could accommodate up to 60 people. Additional facilities and infrastructure in this zone that may be accommodated includes paved parking, VIP/host pads with hookups, single lane paved roads, and picnic areas. Some areas in the Recreation Zone would be

maintained as open areas or with other recreational facilities.

Even though this alternative involves more development at the site than the other alternatives, there would be no effect on special status species in Uphapee Creek. As with the other alternatives, CBMPPs would be implemented to prevent impacts from potential stormwater runoff to the water quality of nearby streams.

Cumulative Impacts. The impacts of Alternative E on cumulative impacts on special status species would be similar to those described for Alternative A.

Conclusion. The impacts of Alternative E on special status species would be similar to those described for Alternative B.

ECOLOGICALLY CRITICAL AREAS

Methodology

Through coordination with the USFWS, federally listed species were identified that could be located in or near the Tuskegee Airmen NHS. U.S. Fish and Wildlife Service included information on each species, including their preferred habitat, prey, and foraging areas. For ecologically critical areas, the following impact intensities were used. These definitions are consistent with the language used to determine effects on threatened and endangered species under Section 7 of the Endangered Species Act.

No effect – The action would cause no effect on the special status species or critical habitat.

Not likely to adversely affect –

The action would be expected to result in discountable effects on a species or critical habitat (that is, unlikely to occur and not able to be meaningfully measured, detected, or evaluated), or it would be completely beneficial.

Likely to adversely affect –

The action would result in a direct or indirect adverse effect on a species or critical habitat, and the effect would not be discountable or completely beneficial.

Impacts from Implementing Alternative A – No Action

This alternative would continue current management of the Tuskegee Airmen NHS with no changes in wildlife management. No changes in development would occur and, therefore, no new impacts on habitat would occur. Existing conditions and situations would continue. Therefore, there would be no effect to the designated critical habitat in Uphapee Creek from implementing this alternative.

Cumulative Impacts. The three mussel species require unique aquatic habitats to thrive. The habitat of the finelined pocketbook mussel includes both high and low gradient creeks and medium-sized rivers of moderate gradient and riffle. The southern clubshell mussel needs highly oxygenated streams with sand and gravel substrate, and the ovate clubshell mussel prefers habitat in moderate to high gradient large and medium-sized rivers or creeks with pools and riffles. The finelined pocketbook mussel currently appears to be restricted to creek habitat and may have been eliminated from most river habitat throughout its range (NatureServe

2003 and Smith 1993). Habitat modification, sedimentation, and water quality degradation have led to the decline of the ovate clubshell mussel (NatureServe 2003).

Because this alternative would not contribute to the impacts of other past, present, and reasonably foreseeable future actions, there would be no project-related cumulative impacts on ecologically critical areas.

Conclusion. The no-action alternative would have no effect on designated critical habitat in Uphapee Creek. Because this alternative would not contribute to the impacts of other past, present, and reasonably foreseeable future actions, there would be no project-related cumulative impacts on ecologically critical areas. No impairment of ecologically critical areas would occur as a result of implementing the no-action alternative.

Impacts from Implementing Alternative B

Although there are some changes in Tuskegee Airmen NHS development proposed under this alternative, it would not occur in potential habitat for the mussel species.

Development under this alternative would be concentrated in the Administration Zone. This area could include facilities such as parking lots, sidewalks, offices, storage buildings, maintenance, emergency, and similar structures to support park operational and administrative needs.

The Nature Discovery Zone would primarily consist of undeveloped areas with some trails and wayside exhibits. No additional impervious surface would be added

in the Nature Discovery Zone. No additional runoff or erosion is anticipated in this zone.

No new developments or changes to existing developments are proposed for the Historic 1945 Zone or the Visitor Orientation Zone for Alternative B.

Due to the minimal amount of development planned for this alternative, no effect on critical habitat is expected.

Additionally, there would be no effect to the designated critical habitat in Uphapee Creek from implementing this alternative.

Cumulative Impacts. The impacts of Alternative B on cumulative impacts on ecologically critical areas would be similar to those described for Alternative A.

Conclusion. Alternative B would have no effect on designated critical habitat in Uphapee Creek. Because this alternative would not contribute to the impacts of other past, present, and reasonably foreseeable future actions, there would be no project-related cumulative impacts on ecologically critical areas. No impairment of ecologically critical areas would occur as a result of implementing Alternative B.

Impacts from Implementing Alternative C

As with Alternative B, proposed development changes to the Tuskegee Airmen NHS under this alternative would not occur in potential habitat for the mussel species.

Development under this alternative would also be concentrated in the Administration Zone. This area could include facilities such as parking lots, sidewalks, offices,

storage buildings, maintenance, emergency, and similar structures to support park operational and administrative needs.

The potential restoration and interpretative programs planned for the expanded Historic 1945 Zone could result in additional loss or clearing of vegetation in the western portion of the site.

No new developments or changes to existing developments are proposed for the Visitor Orientation Zone for Alternative C.

The acreage of the Nature Discovery Zone would cover approximately half of Tuskegee Airmen NHS, slightly less than Alternative B. Inside the Nature Discovery Zone, visitor services and facilities could include up to 3,500 ft of natural trails, 300 ft of hardened trails, and 10 additional wayside exhibits. The Nature Discovery Zone would primarily consist of undeveloped areas with some trails and wayside exhibits.

Due to the minimal amount of development planned for this alternative, no effect on critical habitat is expected.

Additionally, there would be no effect to the designated critical habitat in Uphapee Creek from implementing this alternative.

Cumulative Impacts. The impacts of Alternative C on cumulative impacts on ecologically critical areas would be similar to those described for Alternative A.

Conclusion. The impacts of Alternative C on ecologically critical areas would be similar to those described for Alternative B.

Impacts from Implementing Alternative D - Agency and Environmentally Preferred Alternative

This alternative balances preserving the natural environment and providing a variety of visitor experiences and recreational opportunities. As with Alternatives B and C, proposed development changes to the Tuskegee Airmen NHS under this alternative would not occur in potential habitat for the mussels.

The area zoned as Administration for this alternative is slightly larger than the other alternatives. This area could include facilities such as parking lots, sidewalks, offices, storage buildings, maintenance, emergency, and similar structures to support park operational and administrative needs.

The potential restoration and interpretative programs planned for the expanded Historic 1945 Zone could result in additional loss or clearing of vegetation in the western portion of the site.

No new developments or changes to existing developments are proposed for the Visitor Orientation Zone for Alternative D.

The Nature Discovery Zone would cover approximately one-third of the site. Development in the Nature Discovery and Recreation Zones could include up to 5,000 ft of natural trails, 1,000 ft of hardened trails, 15 wayside exhibits, 3 kiosks, and a small group program area that could accommodate up to 30 people. The Recreation Zone would allow low impact recreational activities (i.e., hiking, walking, nature viewing, and picnicking) and interpretative programs.

Additional facilities and infrastructure that could be accommodated in the Recreation Zone in this alternative are picnic areas, unpaved roads, VIP/host pads, unpaved parking, and an open space.

Even though this alternative involves more development at the Tuskegee Airmen NHS, no effect on the designated critical habitat in Uphapee Creek is expected for this alternative.

Cumulative Impacts. The impacts of Alternative D on cumulative impacts on ecologically critical areas would be similar to those described for Alternative A.

Conclusion. The impacts of Alternative D on ecologically critical areas would be similar to those described for Alternative B.

Impacts from Implementing Alternative E

Alternative E offers the most recreational opportunities of all the alternatives outside of the core historic and visitor areas. As with Alternatives B, C, and D, proposed development changes to the Tuskegee Airmen NHS under this alternative would not occur in potential habitat for the mussel species.

The area zoned as Administration for this alternative could include facilities such as parking lots, sidewalks, offices, storage buildings, maintenance, emergency, and similar structures to support park operational and administrative needs.

The potential restoration and interpretative programs planned for the expanded Historic 1945 Zone could result in additional

loss or clearing of vegetation in the western portion of the site.

No new developments or changes to existing developments are proposed for the Visitor Orientation Zone for Alternative E.

The Recreation Zone encompasses slightly more than half of the site, including most of the eastern half of the site. This zone would allow low impact recreation activities and interpretive programs. Visitor services and facilities in this zone could include up to 5,000 ft of natural trails, 2,000 ft of hardened trails, 30 additional wayside exhibits, 5 kiosks, and a group program area that could accommodate up to 60 people. Additional facilities and infrastructure in this zone that may be accommodated includes paved parking, VIP/host pads with hookups, single lane paved roads, and picnic areas. Some areas in the Recreation Zone would be maintained as open areas or with other recreational facilities.

Even though this alternative involves more development at the site than the other alternatives, there would be no effect on designated critical habitat in Uphapee Creek.

Cumulative Impacts. The impacts of Alternative E on cumulative impacts on ecologically critical areas would be similar to those described for Alternative A.

Conclusion. The impacts of Alternative E on ecologically critical areas would be similar to those described for Alternative B.

NATURAL SOUNDSCAPES

Methodology

Context, time, and intensity together determine the level of impact of an activity. For example, noise for a certain period and intensity would be a greater impact in a highly sensitive context, and a given intensity would be a greater impact if it occurred more often, or for longer duration. In some cases an analysis of one or more factors may indicate one impact level, while an analysis of another factor may indicate a different impact level, according to the criteria below. In such cases, best professional judgment based on a documented rationale was used to determine which impact level best applies to the situation being evaluated.

Negligible – Natural sounds would prevail in zones where management objectives call for natural processes to predominate; human-caused noise would be absent or very infrequent and mostly unmeasurable.

Minor – Natural sounds would predominate in zones where management objectives call for natural processes to predominate, with human-caused noise infrequent and at low levels. In zones where human-caused noise is consistent with the purpose and objectives of the Tuskegee Airmen NHS, natural sounds could be heard occasionally.

Moderate – In zones where management objectives call for natural processes to predominate, natural sounds would predominate, but human-caused noise could occasionally be present at low to moderate levels. In areas where human-

caused noise is consistent with Tuskegee Airmen NHS purpose and objectives, it would predominate during daylight hours and would not be overly disruptive to visitor activities in the area; in such areas, natural sounds could still be heard occasionally.

Major – In zones where management objectives call for natural processes to predominate, natural sounds would be impacted by human-caused noise sources frequently or for extended periods of time. In zones where human-caused noise is consistent with Tuskegee Airmen NHS purpose and zoning,

- the natural soundscape would be impacted most of the day,
- noise would disrupt conversation for long periods of time and/or make enjoyment of other activities in the area difficult, and
- natural sounds would rarely be heard during the day.

Impacts from Implementing Alternative A – No Action

The level of human-related noise in all areas of the Tuskegee Airmen NHS would not change from existing levels as a result of implementing the no-action alternative. Consequently no new impacts would be anticipated.

Cumulative Impacts. In general, the natural soundscape has been degraded from activities on lands adjacent to the Tuskegee Airmen NHS boundaries such as aircraft and activities at Moton Field Municipal Airport and traffic along General Chappie James Dr (Route 81). However, the natural soundscape dominates at most of the Tuskegee Airmen NHS because it is in a rural part of the county.

This alternative would not contribute to the impacts of other past, present and reasonably foreseeable future actions, so there would be no cumulative impacts on the natural soundscape resulting from implementing this alternative.

Conclusion. Alternative A would have no new effects on the natural soundscape. However, this alternative would contribute to long-term moderate beneficial impacts on the natural soundscape since two-thirds of the site would remain undeveloped. Because this alternative would not have any new effects on the natural soundscape, there would be no cumulative effects. Thus, there would be no impairment of this resource.

Impacts from Implementing Alternative B

Under Alternative B, the Administration Zone would impact the natural soundscape of the site; however, this would be consistent with the designated use of this zone. There would be short-term moderate adverse impacts on the natural soundscape from the construction of the facilities (i.e., parking lots, offices, storage and maintenance buildings, and similar structures to support park operational and administrative needs) in the Administration Zone.

The Nature Discovery Zone would consist of trails and wayside exhibits resulting in long-term adverse impacts to the natural soundscape, but these impacts would be negligible because human activities within this zone would be passive. In addition, there would be long-term moderate beneficial impacts on the natural soundscape because the property would be protected from

development by preserving two-thirds of the park as a Nature Discovery Zone.

No new impacts to the natural soundscape would be expected as a result of implementing the Historic 1945 Zone or the Visitor Orientation Zone for Alternative B, because no new developments or changes to existing developments are proposed under this alternative for these zones at the Tuskegee Airmen NHS. Impacts on the natural soundscape from existing development would continue.

Cumulative Impacts. The impacts of Alternative B on cumulative impacts on the natural soundscape would be similar to those described for Alternative A, except:

This alternative, in combination with the minor adverse impacts above, would result in negligible adverse cumulative impacts on the natural soundscape.

Conclusion. Implementing Alternative B would have negligible long-term adverse impacts on the natural soundscape. In addition, there would be long-term moderate beneficial impacts on the natural soundscape because the property would be protected from development by preserving two-thirds of the site as a Nature Discovery Zone. The overall cumulative impacts would be negligible and adverse. There would be no impairment of this resource.

Impacts from Implementing Alternative C

Impacts to the natural soundscape for this alternative would be similar to Alternative B. The Administration Zone would impact

the natural soundscape of the site; however, this would be consistent with the designated use of this zone. There would be short-term moderate adverse impacts on the natural soundscape from the construction of the facilities (i.e., parking lots, offices, storage and maintenance buildings, and similar structures to support park operational and administrative needs) in the Administration Zone.

The Nature Discovery Zone would consist of trails and wayside exhibits resulting in long-term adverse impacts to the natural soundscape, but these impacts would be negligible because human activities within this zone would be passive. In addition, there would be long-term moderate beneficial impacts on the natural soundscape because the property would be protected from development by preserving half of the park as a Nature Discovery Zone.

Impacts from the expanded Historic 1945 Zone in Alternative C on the natural soundscape could result from the potential restoration and interpretative programs planned for this zone. However, human activities in this zone would be consistent with the designated use of this zone.

No new impacts to the natural soundscape would be expected as a result of implementing the Visitor Orientation Zone for Alternative C, because no new developments or changes to existing developments are proposed under this alternative for this zone at the Tuskegee Airmen NHS. Impacts on the natural soundscape from existing development in this zone would continue.

Cumulative Impacts. The impacts of Alternative C on cumulative impacts on the natural soundscape would be similar to those described for Alternative B.

Conclusion. Implementing Alternative C would have negligible long-term adverse impacts on the natural soundscape. In addition, there would be long-term moderate beneficial impacts on the natural soundscape because the property would be protected from development by preserving half of the site as a Nature Discovery Zone. The overall cumulative impacts would be negligible and adverse. There would be no impairment of this resource.

Impacts from Implementing Alternative D - Agency and Environmentally Preferred Alternative

Impacts to the natural soundscape would be slightly more for this alternative due to the addition of a Recreation Zone in this alternative. The Recreation Zone would allow low impact recreational activities (i.e., hiking, walking, nature viewing, and picnicking) and interpretative programs. However, impacts to the natural soundscape in this zone along with the Administration Zone and the Historic 1945 Zone would be consistent with the designated use of these zones. There would be short-term moderate adverse impacts on the natural soundscape from the construction of the facilities and structures in these zones and long-term minor adverse impacts after implementation of the alternative.

The Nature Discovery Zone would consist of trails and wayside exhibits resulting in long-term adverse impacts to the natural

soundscape, but these impacts would be negligible because human activities within this zone would be passive. In addition, there would be long-term moderate beneficial impacts on the natural soundscape because the property would be protected from development by preserving one-third of the site as a nature zone.

No new impacts to the natural soundscape would be expected as a result of implementing the Visitor Orientation Zone for Alternative D, because no new developments or changes to existing developments are proposed under this alternative for this zone at the site. Impacts on the natural soundscape from existing development in this zone would continue.

Cumulative Impacts. The impacts of Alternative D on cumulative impacts on the natural soundscape would be similar to those described for Alternative B, except:

This alternative, in combination with the minor adverse impacts above, would result in minor and adverse cumulative impacts on the natural soundscape.

Conclusion. Implementing Alternative D would have long-term minor adverse impacts on the natural soundscape. In addition, there would be long-term minor beneficial impacts on the natural soundscape because the property would be protected from development by preserving one-third of the site as a Nature Discover Zone. The overall cumulative impacts would be minor and adverse. There would be no impairment of this resource.

Impacts from Implementing Alternative E

Alternative E would result in changes in conditions affecting the natural soundscape. Alternative E offers the most recreational opportunities of all the alternatives outside of the core historic and visitor areas. This zone would allow low impact recreation activities and interpretive programs. Visitor services and facilities in this zone could include up to 5,000 ft of natural trails, 2,000 ft of hardened trails, 30 additional wayside exhibits, 5 kiosks, and a group program area that could accommodate up to 60 people. Additional facilities and infrastructure in this zone that may be accommodated includes paved parking, VIP/host pads with hookups, single lane paved roads, and picnic areas. Due to the facilities offered under this alternative, there would be an increase in human-related noises resulting in short-term moderate adverse impacts on the natural soundscape from construction, and long-term moderate adverse impacts after construction is completed. However, impacts to the natural soundscape from this zone would be consistent with the designated use of this zone.

Impacts to the natural soundscape in the Administration Zone and the Historic 1945 Zone would be consistent with the designated use of these zones. There would be short-term moderate adverse impacts on the natural soundscape from the construction of the facilities and structures in these zones and long-term minor adverse impacts after implementation of the alternative.

No new impacts to the natural soundscape would be expected as a

result of implementing the Visitor Orientation Zone for Alternative E, because no new developments or changes to existing developments are proposed under this alternative for this zone at the Tuskegee Airmen NHS. Impacts on the natural soundscape from existing development would continue.

This alternative does not have a Nature Discovery Zone.

Cumulative Impacts. The impacts of Alternative E on cumulative impacts on the natural soundscape would be similar to those described for Alternative D.

Conclusion. Implementing Alternative D would have long-term moderate adverse impacts on the natural soundscape. The overall cumulative impacts would be minor and adverse. There would be no impairment of this resource.

SOCIOECONOMIC ENVIRONMENT

METHODOLOGY

The NPS applied logic, experience, professional expertise, and professional judgment to analyze the impacts on the social and economic environment resulting from each alternative. Economic data, historic visitor use data, expected future visitor use, and future developments of the Tuskegee Airmen NHS were all considered in identifying, discussing, and evaluating expected impacts.

Intensity of Impact. Assessments of potential socioeconomic impacts for the action alternatives were based on comparisons between the no-action alternative and each of the action alternatives. The following intensity definitions were used.

Negligible – Effects on socioeconomic conditions would be at or below the level of detection. There would be no noticeable change in any defined socioeconomic indicators.

Minor – Effects on socioeconomic conditions would be slight but detectable.

Moderate – Effects on socioeconomic conditions would be readily apparent and result in changes to socioeconomic conditions on a local scale.

Major – Effects on socioeconomic conditions would be readily apparent, resulting in demonstrable changes to socioeconomic conditions in the region.

IMPACTS FROM IMPLEMENTING ALTERNATIVE A – NO ACTION

The no-action alternative would have no impact on the regional economy. Impacts discussed under this alternative are assuming conditions after the historic core area is open to the public.

In the no-action alternative impacts to the regional economy would continue at the same level as that outlined in the DCP. Current management practices, policies, and park programs would continue to be implemented with no major changes from current levels. Visitor facilities would be provided and maintained in accordance with the DCP. The average length of stay in the region would not likely change. Visitors would continue to visit the Tuskegee Airmen NHS in the same manner and experience the same social conditions.

Cumulative Impacts. The social and economic situation in Macon County is affected by a combination of many factors, including an NPS presence. The livelihoods of service-related businesses in the region rely to some degree on the inflow of tourist dollars, especially restaurants and motels. Tourism is not the driving factor in the regional economy. Macon County's economy largely depends on the service industry as well as its government labor force, which includes Tuskegee University and the Veterans Administration Hospital.

Common to all alternatives would be the relatively large increase in the number of visitors expected when the historic core area is

open to the public. This would be a long-term, moderate economic benefit to the local and state economy. The increase in visitors to the park may bring additional consumer services not currently available including private development such as lodging, restaurants, and service areas. Staffing of the site would produce long-term changes in the local employment and educational opportunities in the county would be impacted.

This alternative would not contribute to other past, present, and future impacts on social or economic conditions because impacts to the regional economy would continue at the same level as that outlined in the DCP. Thus this alternative would have no related cumulative effects.

Conclusion. The no-action alternative would have no new effect on the socioeconomic environment in the region. Because this alternative would have no new effects on the socioeconomic environment, there would be no cumulative impacts.

IMPACTS FROM IMPLEMENTING ALTERNATIVE B

This alternative would have a long-term minor beneficial impact on the regional economy. The Tuskegee Airmen NPS would hire additional employees to handle the need for maintenance personnel. Hiring two employees (in addition to the 20 employees planned for when the historic core area is open to the public) would benefit the local economy through an increased demand for housing, utilities, services, and goods.

This alternative would also provide short-term minor benefits

to the local economy for the construction called for in this alternative (i.e., parking lots, offices, storage and maintenance buildings, and trails).

The number of visitors, average length of visit, and length of season could increase when the addition of the Nature Discovery Zone is implemented. This zone could have up to 4,000 ft of natural trails and 10 wayside exhibits. Businesses that rely on the tourist trade would receive a long-term minor benefit through direct and indirect spending.

Cumulative Impacts. The cumulative impacts of Alternative B on the socioeconomic environment would be similar to those described for Alternative A, except:

This alternative, in combination with the beneficial impacts above, would result in minor beneficial cumulative effects; however, this alternative's contribution to these effects would be small and beneficial.

Conclusion. Implementing Alternative B would result in long-term minor beneficial impacts on the socioeconomic environment. The overall cumulative effects would be minor and beneficial; this alternative's contribution to these effects would be small and beneficial.

IMPACTS FROM IMPLEMENTING ALTERNATIVE C

This alternative would have a long-term minor beneficial impact on the regional economy. The Tuskegee Airmen NPS would hire additional employees to handle the need for maintenance personnel. Hiring two employees (in addition

to the 20 employees planned for when the historic core area is open to the public) would benefit the local economy through an increased demand for housing, utilities, services, and goods.

This alternative would also provide short-term minor benefits to the local economy for the construction called for in this alternative (i.e., parking lots, offices, storage and maintenance buildings, and trails).

The number of visitors, average length of visit, and length of season could increase when the addition of the Nature Discovery Zone is implemented. This zone could have up to 3,500 ft of natural trails, 300 ft of hardened trails, and 10 additional wayside exhibits. Businesses that rely on the tourist trade would receive a long-term minor benefit through direct and indirect spending.

Cumulative Impacts. The cumulative impacts of Alternative C on the socioeconomic environment would be similar to those described for Alternative B.

Conclusion. The impacts of Alternative C on the socioeconomic environment would be similar to those described for Alternative B.

IMPACTS FROM IMPLEMENTING ALTERNATIVE D - AGENCY AND ENVIRONMENTALLY PREFERRED ALTERNATIVE

This alternative would have a long-term moderate beneficial impact on the regional economy. The Tuskegee Airmen NPS would hire additional employees to handle the need for interpretative and maintenance personnel. Hiring six employees (in addition to the 20

employees planned for when the historic core area is open to the public) would benefit the local economy through an increased demand for housing, utilities, services, and goods.

This alternative would also provide short-term minor benefits to the local economy for the construction called for in this alternative (i.e., parking lots, offices, storage and maintenance buildings, trails, picnic areas, and unpaved roads).

The number of visitors, average length of visit, and length of season could increase when the addition of the Nature Discovery Zone and Recreation Zone is implemented. These zones could have up to 5,000 ft of natural trails, 1,000 ft of hardened trails, 15 wayside exhibits, 3 kiosks, and a small group program area that could accommodate up to 30 people. Additional facilities and infrastructure that could be accommodated in the Recreation Zone in this alternative are picnic areas, unpaved roads, and VIP/host pads. Businesses that rely on the tourist trade would receive a long-term moderate benefit through direct and indirect spending.

Cumulative Impacts. The cumulative impacts of Alternative D on the socioeconomic environment would be similar to those described for Alternative B, except:

This alternative, in combination with the beneficial impacts above, would result in moderate beneficial cumulative effects.

Conclusion. Implementing Alternative D would result in long-term moderate beneficial

impacts on the socioeconomic environment. The overall cumulative effects would be moderate and beneficial.

IMPACTS FROM IMPLEMENTING ALTERNATIVE E

This alternative would have a long-term moderate beneficial impact on the regional economy. The Tuskegee Airmen NPS would hire additional employees to handle the need for interpretative and maintenance personnel. Hiring six employees (in addition to the 20 employees planned for when the historic core area is open to the public) would benefit the local economy through an increased demand for housing, utilities, services, and goods.

This alternative would also provide short-term minor benefits to the local economy for the construction called for in this alternative (i.e., parking lots, offices, storage and maintenance buildings, picnic areas, and unpaved roads).

The number of visitors, average length of visit, and length of season could increase when the addition of the Nature Discovery Zone and Recreation Zone is implemented. These zones could have up to 5,000 ft of natural trails, 2,000 ft of hardened trails, 30 additional wayside exhibits, 5 kiosks, and a group program area that could accommodate up to 60 people. Additional facilities and infrastructure in this zone that may be accommodated includes paved parking, VIP/host pads with hookups, single lane paved roads, and picnic areas. Businesses that rely on the tourist trade would receive a long-term moderate

benefit through direct and indirect spending.

Cumulative Impacts. The cumulative impacts of Alternative E on the socioeconomic environment would be similar to those described for Alternative D.

Conclusion. The impacts of Alternative E on the socioeconomic environment would be similar to those described for Alternative D.

VISITOR USE AND EXPERIENCE

METHODOLOGY

The analysis of potential effects of the alternatives on visitor use and experience is based on how visitor use and experience would change with the addition or removal of certain facilities and the way management prescriptions were applied in the alternatives. This analysis is primarily qualitative rather than quantitative due to the conceptual nature of the alternatives.

Duration of Impact. Short-term impacts would occur during one visit only; long-term impacts would occur during more than one visit.

Intensity of Impact. Impacts were evaluated comparatively between alternatives, using the no-action alternative as a baseline for comparison with each action alternative:

Negligible – Visitors would likely be unaware of any effects associated with implementation of the alternative.

Minor – Changes in visitor use and/or experience would be slight but detectable, would affect few visitors, and would not appreciably limit or enhance visitor experiences identified as fundamental to the NHS's purpose and significance.

Moderate – Some characteristics of visitor use and/or experience would change, and many visitors would likely be aware of the effects associated with implementation of the alternative; some changes to experiences identified as fundamental to the NHS's

purpose and significance would be apparent.

Major – Multiple characteristics of visitor experience would change, including experiences identified as fundamental to the NHS's purpose and significance; most visitors would be aware of the effects associated with implementing the alternative.

Type of Impact. Adverse impacts are those that most visitors would perceive as undesirable. Beneficial impacts are those that most visitors would perceive as desirable.

IMPACTS FROM IMPLEMENTING ALTERNATIVE A – NO ACTION

In the no-action alternative visitor experience, visitor facilities, interpretation, and education would continue at the same level as that outlined in the DCP. Overall, existing formal and informal interpretation at the historic core area would continue to create a moderate beneficial impact on visitors to the site. However, there would be very low potential for interpretation and educational opportunities in addition to those provided in the historic core area. There would be little opportunity for recreational variety since there would be no additional trails, picnic areas, or designated areas for recreation under the no-action alternative. In addition there would be very low potential for visitor services and facilities in addition to those provided in the visitor areas. All these adverse conditions would result in moderate long-term adverse impacts

to visitor use and experience at the NHS. However, there would be very high potential for ensuring visitor health and safety due to low visitor dispersion in the park and a more controlled (but limited) visitor experience.

Cumulative Impacts. Visitors to the Tuskegee Airmen NHS would experience the same level of educational opportunities through staff interaction and interpretive programs provided for in the DCP. Visitors may continue to combine trips with visits to other historic sites in the area such as Tuskegee University. This alternative would not result in any new actions that would contribute to these effects and so would not have any cumulative effects.

Conclusion. Implementing the no-action alternative would result in long-term moderate adverse impacts to visitor use and experience. Because actions proposed in this alternative would have no new effects on visitor use and experience, there would be no project-related cumulative impacts.

IMPACTS FROM IMPLEMENTING ALTERNATIVE B

Alternative B emphasizes the natural environment of the Tuskegee Airmen NHS by keeping the park largely undeveloped and natural in character outside of the historic core and visitor areas. The Historic 1945 Zone, Nature Discovery Zone, Visitor Orientation Zone, and Administration Zones are components of Alternative B. The Administration Zone would not be accessible to visitors and is not discussed further.

Alternative B would provide a moderate to high positive impact for interpretive and educational opportunities through the implementation of up 4,000 ft of natural trails and 10 additional wayside exhibits outside of the historic core area. In addition, the Nature Discovery Zone in Alternative B would encompass the largest area (two-thirds of the site) of any of the alternatives and could provide high potential for visitors to enjoy a quiet walk along nature trails. The undeveloped habitat and nature of the trails could be enjoyed by visitors in near solitude during periods of time when use is low. A picnic area would provide a location for visitors to rest and linger at the site. The addition of nature trails at Tuskegee Airmen NHS would provide a long-term moderate beneficial impact for visitor use and experience at the site.

The Visitor Orientation Zone would concentrate visitor use into a small area from which they could move to the Historic 1945 Zone and/or the Nature Discovery Zone. At times large numbers of visitors, or visiting school groups could result in minor, short-term adverse impacts to the visitor experience within the Visitor Orientation Zone. Use of facilities, optimum interpretive experience, and personal expectations of the visit could be affected by large numbers of people in a relatively small area.

Due to the distance and topography of the area between the parking lot and the historic core area, visitors with disabilities and those who find it too difficult to walk will be made available an on-

call mobility vehicle to shuttle them from the parking area to the historic core area. This service would have major, long-term beneficial impacts to the visitor experience at the NHS.

This alternative would have a long-term, minor, beneficial effect on ensuring public health and employee safety due to the low dispersion of visitors compared to the other action alternatives.

Cumulative Impacts. In 1990, a statewide survey of Alabama residents determined that approximately 87 percent of residents participate in some form of outdoor recreation. Walking for pleasure (29 percent) and trail hiking (5 percent) were two of the many activities enjoyed by Alabama residents (ADECA 2002). Regionally, in the South Central Alabama Planning District where Tuskegee Airmen NHS is located, 25 percent of the respondents walk for pleasure and 1.5 percent participate in trail hiking. In addition, demand for hiking/walking trails was determined to exceed the available sites for participation (ADECA 2002).

The visitor experience available through the options presented in Alternative B would provide an increased opportunity to educate visitors on the history of the Tuskegee Airmen and provide additional opportunities for experiencing nature and walking. As visitor use increases with increased opportunity for interpretation, educational and nature enjoyment, experiences of crowded facilities, interpretive programs, and loss of solitude on trails would occur. Visitors to other nearby historic sites such

as Tuskegee University may increase as notoriety of the restoration and rehabilitation of Tuskegee Airmen NHS is acknowledged.

When impacts discussed above are considered in combination with the impacts of this alternative, the resulting cumulative effects on the visitor experience would be long term, minor, and beneficial.

Conclusion. Alternative B would provide more visitor opportunities for learning the history of the Tuskegee Airmen and enjoying open space by using nature trails with a minimal investment in facilities and interpretive exhibits. Implementing Alternative B would result in moderate long-term beneficial impacts on the visitor experience. The overall cumulative impacts would be minor and beneficial.

IMPACTS FROM IMPLEMENTING ALTERNATIVE C

Alternative C also emphasizes the natural environment of the Tuskegee Airmen NHS. The Historic 1945 Zone, Nature Discovery Zone, Visitor Orientation Zone, and Administration Zones are components of Alternative C. The Historic 1945 Zone is expanded in this alternative to encompass the southeast and west of the core area and presents the visitor with additional opportunities to experience the life of the Tuskegee Airmen in its historic context. Additional restoration would provide the visitor with additional interpretive and educational opportunities and exhibits over a larger area and in most situations provide the visitor with opportunities to disperse from groups and crowds and move through the features and

exhibits at their own pace. The Administration Zone would not be accessible to visitors and is not discussed further.

This alternative provides for increased opportunities for interaction with NPS staff and other interpreters which would provide the visitor with personal contact and increased opportunities to interact with interpretive staff. Beneficial impacts would also be provided by the Nature Discovery Zone which would encompass half of the site where visitors would be provided with natural trails for walking and nature viewing on up to 3,500 ft of natural trail and 300 ft of hardened trail. As in Alternative B, the need for locations where people can walk are in demand and providing walking trails in Alternative C would provide beneficial long-term impacts to visitors. The undeveloped habitat and nature of the trails could be enjoyed by visitors in near solitude during periods of time when use is low. A picnic area would provide a location for visitors to rest and linger at the site. The addition of nature trails at Tuskegee Airmen NHS would provide a long-term moderate beneficial impact for visitor use and experience at the site.

As with Alternative B, the Visitor Orientation Zone would concentrate visitor use into a small area from which they could move to the Historic 1945 Zone and/or the Nature Discovery Zone. High visitor use (i.e., large numbers of visitors, or visiting school groups) at times could result in minor, short-term adverse impacts from congestion in the Visitor Orientation Zone, and crowded interpretive and cultural resource exhibits, and facilities.

Due to the distance and topography of the area between the parking lot and the historic core area, visitors with disabilities and those who find it too difficult to walk will be made available an on-call mobility vehicle to shuttle them from the parking area to the historic core area. This service would have major, long-term beneficial impacts to the visitor experience at the NHS.

This alternative would have a long-term, minor, beneficial effect on ensuring public health and employee safety due to the low dispersion of visitors compared to the other action alternatives.

Cumulative Impacts. The cumulative impacts of Alternative C on visitor use and experience would be similar to those described for Alternative B.

Conclusion. The impacts of Alternative C on visitor use and experience would be similar to those described for Alternative B.

IMPACTS FROM IMPLEMENTING ALTERNATIVE D - AGENCY AND ENVIRONMENTALLY PREFERRED ALTERNATIVE

This alternative aims to provide the most diversity of visitor interpretive programs and recreational opportunities. The Historic 1945 Zone, Nature Discovery Zone, Visitor Orientation Zone, Recreation Zone, and Administration Zones are components of Alternative D. The Administration Zone would not be accessible to visitors and is not discussed further.

Added to Alternative D is the Recreation Zone which supports

additional opportunities for visitors to the site. Visitor services and facilities that could be added in the selection of Alternative D include the addition of up to 5,000 ft of walking trails, 1,000 ft of hardened trails, 15 wayside exhibits, 3 kiosks, and a small area where group programs (to 30 people) could be provided. These features would all provide enhanced opportunities for interpretation and education, staff contact with visitors, and the enjoyment of open space and nature resulting in beneficial long-term impacts. In addition, the establishment of an area for group use would provide a location for focusing school groups and special use groups to optimize staff contact and interpretation of larger groups. Bus parking would further facilitate the enhancement of visitor use by groups. The Recreation Zone would additionally provide for the addition of low impact recreational activities and interpretive programming that would allow a focus different from the site's predominant story of the Tuskegee Airmen. An open space area for low impact recreation could be located in the southeastern portion of the site and be no larger than one acre. The Recreation Zone would provide the potential for visitors to diversify their use of the Tuskegee Airmen NHS and would add further opportunity for increasing visitation. The addition of a Recreation Zone at Tuskegee Airmen NHS would provide a long-term major beneficial impact for visitor use and experience.

Visitor experience within the expanded Historic 1945 Zone in Alternative D would result in beneficial impacts through enhanced restoration and increased

interpretive programs and opportunities similar to those afforded in Alternative C. High visitor use at times could result in short-term minor adverse impacts from congestion in the Visitor Orientation Zone, crowded interpretive and cultural resource exhibits, and facilities.

Due to the distance and topography of the area between the parking lot and the historic core area, visitors with disabilities and those who find it too difficult to walk will be made available an on-call mobility vehicle to shuttle them from the parking area to the historic core area. This service would have major, long-term beneficial impacts to the visitor experience at the NHS.

The addition of a Recreation Zone would result in long-term moderate adverse effects on the ability of the park to ensure public health and safety as visitor's become more dispersed from the Visitor Orientation Zone and the historic core area.

Cumulative Impacts. In 1990, a statewide survey of Alabama residents determined that approximately 87 percent of residents participate in some form of outdoor recreation. Walking for pleasure (29 percent) and trail hiking (5 percent) were two of the many activities enjoyed by Alabama residents (ADECA 2002). Regionally, in the South Central Alabama Planning District where Tuskegee Airmen NHS is located, 25 percent of the respondents walk for pleasure and 1.5 percent participate in trail hiking. In addition, demand for hiking/walking trails was determined to exceed the available sites for participation (ADECA 2002).

The visitor experience available through the options presented in Alternative D would provide an increased opportunity to educate visitors on the history of the Tuskegee Airmen NHS and provide additional opportunities for experiencing nature and walking. In addition, recreational activities would be offered under this alternative. Low impact recreational activities would provide the potential for visitors to diversify their use of the Tuskegee Airmen NHS and would add further opportunity for increasing visitation. As visitor use increases with increased opportunity for interpretation, educational and nature enjoyment, experiences of crowded facilities, interpretive programs, and loss of solitude on trails would occur. Visitors to other nearby historic sites such as Tuskegee University may increase as the opportunities for increased visitor experience including low impact recreation and additional opportunities for education and interpretive interactions at Tuskegee Airmen NHS is acknowledged.

When impacts discussed above are considered in combination with the impacts of this alternative, the resulting cumulative effects on the visitor experience would be long term, moderate, and beneficial.

Conclusion. Alternative D presents the most diverse range of options for visitor experience. Implementing Alternative D would result in major long-term beneficial impacts on the visitor experience. The overall cumulative impacts would be moderate and beneficial.

IMPACTS FROM IMPLEMENTING ALTERNATIVE E

Alternative E offers the most recreational opportunities of all the alternatives outside of the historic core and visitor areas. The Historic 1945 Zone, Visitor Orientation Zone, Recreation Zone, and Administration Zone are components of Alternative E. The Administration Zone would not be accessible to visitors and is not discussed further.

Alternative E provides enhancements to the visitor experience through the enlargement of the Recreation Zone, including more numerous picnic areas, additional parking, and a larger area for low impact recreation (up to 4 acres) and an option for a tram. All of these enhancements would provide beneficial recreational experiences for the visitor. Visitor services increase with the addition of 30 wayside exhibits, 200 ft of hardened trails, 5 kiosks and a larger group program area that would accommodate up to 60 people. The increased development that would be incorporated by the substantial addition to recreational opportunities for this alternative would be an adverse impact to the visitor experience due to the elimination of the Nature Discovery Zone, which offered opportunity for solitude and nature viewing by keeping that portion of the park mostly undeveloped. The proposed enhancements would provide moderate long-term beneficial experiences through continued interpretation and educational programs - particularly for large groups. It also provides ample opportunities for recreation beyond the historic core area and visitor orientation area which would provide moderate long-term

beneficial impacts to visitors using the Tuskegee Airmen NHS for those purposes. Increased congestion and loss of opportunities for solitude and nature viewing however, would result in minor adverse long-term impacts to visitors using those opportunities and potentially create conflict among user-groups and compromising the quality of the visitor experience.

Due to the distance and topography of the area between the parking lot and the historic core area, visitors with disabilities and those who find it too difficult to walk will be made available an on-call mobility vehicle to shuttle them from the parking area to the historic core area. This service would have major, long-term beneficial impacts to the visitor experience at the NHS.

The addition of a Recreation Zone would also act to further disperse visitors and increase visitation specifically for use of the low impact recreation areas resulting in long-term moderate adverse affects on public health and safety.

Cumulative Impacts. In 1990, a statewide survey of Alabama residents determined that approximately 87 percent of residents participate in some form of outdoor recreation. Walking for pleasure (29 percent) and trail hiking (5 percent) were two of the many activities enjoyed by Alabama residents (ADECA 2002). Regionally, in the South Central Alabama Planning District where Tuskegee Airmen NHS is located, 25 percent of the respondents walk for pleasure and 1.5 percent participate in trail hiking. In addition, demand for hiking/walking trails was

determined to exceed the available sites for participation (ADECA 2002).

Additional recreational activities would be offered under this alternative. Low impact recreational activities would provide the potential for visitors to diversify their use of the Tuskegee Airmen NHS and would add further opportunity for increasing visitation. As visitor use increases with increased opportunity for interpretation, educational and nature enjoyment, experiences of crowded facilities, interpretive programs, and loss of solitude on trails would occur. Visitation by local residents as well as traveling visitors may substantially increase as the recreational opportunities at Tuskegee Airmen NHS are acknowledged and local demand is not met by other venues.

When impacts discussed above are considered in combination with the impacts of this alternative, the resulting cumulative effects on the visitor experience would be long term minor and beneficial as well as long-term minor and adverse.

Conclusion. Although the diverse range of options for visitor experiences is greater in Alternative D, the expected intensity and number of users is greater in Alternative E due to the large size of the Recreation Zone. Implementing Alternative E would result in moderate long-term beneficial impacts on the visitor experience. The overall cumulative impacts would be moderate and beneficial.

NPS OPERATIONS

METHODOLOGY

The impact analysis evaluated the effects of the alternatives on the following aspects of NPS operations: staffing, infrastructure, visitor facilities, and services. The analysis was conducted in terms of how NPS operations and facilities might vary under the different management alternatives. The analysis is more qualitative rather than quantitative because of the conceptual nature of the alternatives. Consequently professional judgment was used to reach reasonable conclusions as to the intensity, duration, and type of potential impact.

Duration of Impact. Short-term impacts would be less than one year. Long-term impacts would extend beyond one year and have a permanent effect on operations.

Intensity of Impact.

Negligible – The effects would be at or below the lower levels of detection, and would not have an appreciable effect on NHS operations.

Minor – The effects would be detectable, but would be of a magnitude that would not have an appreciable effect on NHS operations.

Moderate – The effects would be readily apparent and would result in a substantial change in NPS operations in a manner noticeable to staff and the public.

Major – The effects would be readily apparent and would result in a substantial change in NPS operations in a manner noticeable to staff and the public and be markedly

different from existing operations.

Type of Impact. Beneficial impacts would improve NPS operations and/or facilities. Adverse impacts would negatively affect NPS operations and/or facilities and could hinder the staff's ability to provide adequate services and facilities to visitors and staff. Some impacts could be beneficial for some operations or facilities and adverse or neutral for others.

IMPACTS FROM IMPLEMENTING ALTERNATIVE A – NO ACTION

Under the no-action alternative, current management practices, policies, and park programs – such as maintenance, resource management, and park operations – would continue to be implemented with no major changes from that outlined in the DCP. Zoning would not be applied. The historic core area would continue to be managed on a day-to-day basis without the guidance of a long-range plan. Approximately two-thirds of the park would be mostly undeveloped and not actively managed. However, there would be the potential for high operational efficiency due to the concentration of visitors and facilities in a small area.

Without a current GMP in place, obtaining funding for future projects may be difficult, causing long-term minor to moderate adverse impacts on NPS operations.

Cumulative Impacts. In general regardless of the alternative, the NPS is in the process of

increasing its workload at the park resulting from the restoration and rehabilitation of the historic core area. Consequently, buildings and grounds maintenance needs will increase causing long-term minor adverse impacts. Interpretation and administration needs will also increase at the park; however, additional NPS staff will be hired to meet these needs. Once the historic core area is open to the public, the number of full time NPS staff is expected to triple.

Since the no-action alternative would have no new impacts on NPS operations because current management practices and park operations would continue to be implemented with no major changes from that outlined in the DCP, there would be no cumulative effects.

Conclusion. The no-action alternative would result in no new impacts on NPS operations at the Tuskegee Airmen NHS. Because there would be no new impacts on NPS operations, there would be no cumulative impacts.

IMPACTS FROM IMPLEMENTING ALTERNATIVE B

Implementing this alternative would cause changes to NPS operations at Tuskegee Airmen NHS. Alternative B would result in implementation of an Administration Zone and Nature Discovery Zone. Additional NPS staff would be needed to maintain these zones. The Nature Discovery Zone could include development of up to 4,000 ft of natural trails and 10 wayside exhibits. This zone would result in long-term, negligible, adverse

effects on NPS operations due to the limited amount of trails and exhibits to manage. The Administration Zone could include facilities such as parking lots, sidewalks, offices, storage buildings, maintenance, curatorial, emergency, and similar structures to support park operational and administrative needs. This alternative would have a long-term, minor, beneficial effect on ensuring public health and employee safety due to the low dispersion of visitors compared to the other action alternatives.

No new impacts to NPS operations would be expected as a result of implementing the Historic 1945 Zone or the Visitor Orientation Zone for Alternative B, because no new developments or changes to existing developments are proposed under this alternative for these zones at Tuskegee Airmen NHS. Impacts on NPS operations from existing development would continue.

Cumulative Impacts. The cumulative impacts of Alternative B on NPS operations would be similar to those described for Alternative A, except:

When the impacts of Alternative B are added to the effects of other past, present, and future actions relative to NPS operations, no cumulative effects are expected.

Conclusion. Implementing Alternative B would result in long-term, negligible adverse impacts on NPS operations at the Tuskegee Airmen NHS. There would be no overall cumulative effects.

IMPACTS FROM IMPLEMENTING ALTERNATIVE C

This alternative would have impacts to NPS operations similar to Alternative B. This alternative also includes an Administrative Zone and Nature Discovery Zone. This alternative could include up to 3,500 ft of natural trails, 300 ft of hardened trails, and 10 additional wayside exhibits. The Historic 1945 Zone is larger for this zone allowing for the broadest restoration and interpretative programs related to the Tuskegee Airmen story. As with Alternative B, additional NPS staff would be needed to maintain these zones. However, the effects of maintaining the Nature Discovery Zone and the Historic 1945 Zone would result in long-term, negligible, adverse effects on NPS operations due to the limited amount of additional trails and exhibits to manage. This alternative would have a long-term, minor, beneficial effect on ensuring public health and employee safety due to the low dispersion of visitors compared to the other action alternatives.

No new impacts to NPS operations would be expected as a result of implementing the Visitor Orientation Zone for Alternative C, because no new developments or changes to existing developments are proposed under this alternative for these zones at Tuskegee Airmen NHS. Impacts on NPS operations from existing development would continue.

Cumulative Impacts. The cumulative impacts of Alternative C on NPS operations would be similar to those described for Alternative B.

Conclusion. Implementing Alternative C would result in

long-term negligible adverse impacts on NPS operations at the Tuskegee Airmen NHS. There would be no overall cumulative effects.

IMPACTS FROM IMPLEMENTING ALTERNATIVE D - AGENCY AND ENVIRONMENTALLY PREFERRED ALTERNATIVE

This alternative differs from Alternatives B and C in that it offers a Recreation Zone. The Recreation Zone would allow low impact recreational activities and interpretative programs including hiking, walking, nature viewing, picnicking, and similar outdoor recreation endeavors. Like the other alternatives it includes an Administrative Zone, Nature Discovery Zone, and Historic 1945 Zone. Due to the addition of the Recreation Zone in this alternative, additional staff would be needed for operation and maintenance of this zone. Grounds maintenance needs would cause long-term minor adverse impacts. Additional NPS interpretative staff would also be needed for this alternative to fulfill the need for telling the Tuskegee Airmen story. The addition of a Recreation Zone would have a long-term, moderate, adverse effect on ensuring public health and employee safety due to the high dispersion of visitors compared to the other action alternatives.

No new impacts to NPS operations would be expected as a result of implementing the Visitor Orientation Zone for Alternative D, because no new developments or changes to existing developments are proposed under this alternative for this zone at Tuskegee Airmen NHS. Impacts on NPS operations from existing development would continue.

Cumulative Impacts. The cumulative impacts of Alternative D on NPS operations would be similar to those described for Alternative B.

Conclusion. Implementing Alternative D would result in long-term minor adverse impacts on NPS operations at the Tuskegee Airmen NHS. There would be no overall cumulative effects.

IMPACTS FROM IMPLEMENTING ALTERNATIVE E

Alternative E would result in changes in conditions affecting NPS Operations. This alternative offers a Recreation Zone, Administrative Zone, Nature Discovery Zone, and Historic 1945 Zone. As with Alternative D, due to the addition of the Recreation Zone in this alternative, additional staff would be needed for operation and maintenance of this zone. Grounds maintenance needs would cause long-term minor adverse impacts. Additional NPS interpretative staff would be hired for this alternative to meet this demand. The addition of a Recreation Zone would have a long-term, moderate, adverse effect on ensuring public health and employee safety due to the high dispersion of visitors compared to the other action alternatives.

No new impacts to NPS operations would be expected as a result of implementing the Visitor Orientation Zone for Alternative E, because no new developments or changes to existing developments are proposed under this alternative for this zone at Tuskegee Airmen NHS. Impacts on NPS operations from existing development would continue.

Cumulative Impacts. The cumulative impacts of Alternative E on NPS operations would be similar to those described for Alternative C.

Conclusion. The impacts of Alternative E on NPS operations would be similar to those described for Alternative D.

OTHER IMPACTS

UNAVOIDABLE MODERATE OR MAJOR ADVERSE IMPACTS

Under Alternatives B, C, D, and E there would be new development as structures and roads constructed at the Tuskegee Airmen NHS. However, this would result in no unavoidable moderate or major adverse impacts on resources or visitor enjoyment.

IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

Alternative A - There would be no irreversible or irretrievable commitment of resources under this alternative.

Alternative B - Implementing this alternative would result in the irretrievable loss of some vegetation and soil productivity due to construction of facilities (i.e., walkways, buildings, and other permanent administration infrastructure) in the Administration Zone. Approximately two-thirds of the site would be preserved as a Nature Discovery Zone which would not have an irreversible or irretrievable commitment of resources.

Alternative C - Implementing this alternative would result in the irretrievable loss of some vegetation and soil productivity due to construction of facilities (i.e., walkways, buildings, and other permanent administration infrastructure) in the Administration Zone. In addition, the Historic 1945 Zone may have additional development that may include vegetation removal and soil disturbance. Approximately half of the site would be

preserved as a Nature Discovery Zone which would not have an irreversible or irretrievable commitment of resources.

Alternative D, Agency and Environmentally Preferred -

Implementing this alternative would result in the irretrievable loss of some vegetation and soil productivity due to construction of facilities (i.e., walkways, buildings, and other permanent administration infrastructure) in the Administration Zone. The Administration Zone is slightly larger in this alternative and is divided into two separate areas and may constitute a slightly larger irretrievable commitment of resources. The Historic 1945 Zone may have additional development that may include vegetation removal and soil disturbance. There would also be some development of infrastructure in the Recreation Zone, which may also result in a minor irretrievable commitment of resources for the possible construction of unpaved parking and single lane roads. Approximately one-third of the site would be preserved as a Nature Discovery Zone which would not have an irreversible or irretrievable commitment of resources.

Alternative E - Implementing this alternative would result in the irretrievable loss of some vegetation and soil productivity due to construction of facilities (i.e., walkways, buildings, and other permanent administration infrastructure) in the Administration Zone. The Historic 1945 Zone may have additional development that may include

vegetation removal and soil disturbance. The Recreation Zone would cover approximately half of the site and may result in an irretrievable commitment of resources from the development of paved parking and roads and picnic and other visitor facilities. None of the site would be preserved as a Nature Discovery Zone.

RELATIONSHIPS BETWEEN SHORT-TERM USES OF THE ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

The purpose of Tuskegee Airmen NHS is to preserve and restore the site where African-Americans first received flight related military training. The preservation of this historic site will be concentrated in the Historic 1945 Zone, while other areas of the site would be preserved in a Nature Discovery Zone (Alternatives B, C, and D) or maintained for passive recreation in a Recreation Zone (Alternatives D and E). The Tuskegee Airmen NHS would manage these areas to maintain natural ecological processes and native biological communities, while promoting and supporting the cultural resources and visitor experience in the Historic 1945 Zone and Visitor Orientation Zone. Any actions NPS staff would take would be intended to ensure that human uses do not adversely affect the cultural resources or productivity of existing natural biotic communities.

Alternative A would not result in any new development and would have a low potential for reducing long-term natural productivity. Alternatives B, C, and D contain differing amounts of a Nature

Discovery Zone which would preserve long-term natural productivity. Under Alternative D, there would be a slight increase in the development in a Recreation Zone and there may be a minor loss of long-term productivity footprint as unpaved parking and roads are constructed. Alternative E does not contain a Nature Discovery Zone and may have a minor long-term loss of productivity associated with the construction of facilities within the Recreation Zone. Within the Recreation Zone in Alternatives D and E, the amount of development may be low or high depending on the needs to be met for visitors.

APPENDICES, BIBLIOGRAPHY, PREPARERS AND INDEX



APPENDIX A:

ENABLING LEGISLATION



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TITLE III--TUSKEGEE <<NOTE: 16 USC 461 note [table].>> AIRMEN NATIONAL
HISTORIC SITE, ALABAMA

SEC. 301. DEFINITIONS.

As used in this title:

(1) Historic site.--The term ``historic site'' means the Tuskegee Airmen National Historic Site as established by section 303.

(2) Secretary.--The term ``Secretary'' means the Secretary of the Interior.

(3) Tuskegee airmen.--The term ``Tuskegee Airmen'' means the thousands of men and women who were trained at Tuskegee University's Moton Field to serve in America's African-American Air Force units during World War II and those men and women who participate in the Tuskegee Experience today, who are represented by Tuskegee Airmen, Inc.

(4) Tuskegee university.--The term ``Tuskegee University'' means the institution of higher education by that name located in the State of Alabama and founded by Booker T. Washington in 1881, formerly named Tuskegee Institute.

SEC. 302. FINDINGS AND PURPOSES.

(a) Findings.--The Congress finds the following:

(1) The struggle of African-Americans for greater roles in North American military conflicts spans the 17th, 18th, 19th, and 20th centuries. Opportunities for African-American participation in the United States military were always very limited and controversial. Quotas, exclusion, and racial discrimination were based on the prevailing attitude in the United States, particularly on the part of the United States military, that African-Americans did not possess the intellectual capacity, aptitude, and skills to be successful fighters.

(2) As late as the 1940's these perceptions continued within the United States military. Key leaders within the United States Army Air Corps did not believe that African-Americans possessed the capacity to become successful military pilots. After succumbing to pressure exerted by civil rights groups and the black press, the Army decided to train a small number of African-American pilot cadets under special conditions. Although prejudice and discrimination against African-Americans was a national phenomenon, not just a southern trait, it was more intense in the South where it had hardened into rigidly enforced patterns of segregation. Such was the environment where the military chose to locate the training of the Tuskegee Airmen.

(3) The military selected Tuskegee Institute (now known as Tuskegee University) as a civilian contractor for a variety of reasons. These included the school's existing facilities, engineering and technical instructors, and a climate with ideal

flying conditions year round. Tuskegee Institute's strong interest in providing aeronautical training for African-American youths was also an important factor. Students from the school's civilian pilot training program had some of the best test scores when compared to other students from programs across the Southeast.

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(4) In 1941 the United States Army Air Corps awarded a contract to Tuskegee Institute to operate a primary flight school at Moton Field. Tuskegee Institute (now known as Tuskegee University) chose an African-American contractor who designed and constructed Moton Field, with the assistance of its faculty and students, as the site for its military pilot training program. <<NOTE: Robert Russa Moton.>> The field was named for the school's second president, Robert Russa Moton. Consequently, Tuskegee Institute was one of a very few American institutions (and the only African-American institution) to own, develop, and control facilities for military flight instruction.

(5) Moton Field, also known as the Primary Flying Field or Airport Number 2, was the only primary flight training facility for African-American pilot candidates in the United States Army Air Corps during World War II. The facility symbolizes the entrance of African-American pilots into the United States Army Air Corps, although on the basis of a policy of segregation that was mandated by the military and institutionalized in the South. The facility also symbolizes the singular role of Tuskegee Institute (Tuskegee University) in providing leadership as well as economic and educational resources to make that entry possible.

(6) The Tuskegee Airmen were the first African-American soldiers to complete their training successfully and to enter the United States Army Air Corps. Almost 1,000 aviators were trained as America's first African-American military pilots. In addition, more than 10,000 military and civilian African-American men and women served as flight instructors, officers, bombardiers, navigators, radio technicians, mechanics, air traffic controllers, parachute riggers, electrical and communications specialists, medical professionals, laboratory assistants, cooks, musicians, supply, firefighting, and transportation personnel.

(7) Although military leaders were hesitant to use the Tuskegee Airmen in combat, the Airmen eventually saw considerable action in North Africa and Europe. Acceptance from United States Army Air Corps units came slowly, but their courageous and, in many cases, heroic performance earned them increased combat opportunities and respect.

(8) <<NOTE: Harry S. Truman.>> The successes of the Tuskegee Airmen proved to the American public that African-Americans, when given the opportunity, could become effective military leaders and pilots. This helped pave the way for desegregation of the military, beginning with President Harry S. Truman's Executive Order 981 in 1948. The Tuskegee Airmen's success also helped set the stage for civil rights advocates to

continue the struggle to end racial discrimination during the civil rights movement of the 1950's and 1960's.

(9) The story of the Tuskegee Airmen also reflects the struggle of African-Americans to achieve equal rights, not only through legal attacks on the system of segregation, but also through the techniques of nonviolent direct action. The members of the 477th Bombardment Group, who staged a nonviolent demonstration to desegregate the officer's club at Freeman Field, Indiana, helped set the pattern for direct action protests popularized by civil rights activists in later decades.

(b) Purposes.--The purposes of this title are the following:

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(1) To inspire present and future generations to strive for excellence by understanding and appreciating the heroic legacy of the Tuskegee Airmen, through interpretation and education, and the preservation of cultural resources at Moton Field, which was the site of primary flight training.

(2) To commemorate and interpret--

(A) the impact of the Tuskegee Airmen during World War II;

(B) the training process for the Tuskegee Airmen, including the roles played by Moton Field, other training facilities, and related sites;

(C) the African-American struggle for greater participation in the United States Armed Forces and more significant roles in defending their country;

(D) the significance of successes of the Tuskegee Airmen in leading to desegregation of the United States Armed Forces shortly after World War II; and

(E) the impacts of Tuskegee Airmen accomplishments on subsequent civil rights advances of the 1950's and 1960's.

(3) To recognize the strategic role of Tuskegee Institute (now Tuskegee University) in training the airmen and commemorating them at this historic site.

SEC. 303. ESTABLISHMENT OF TUSKEGEE AIRMEN NATIONAL HISTORIC SITE.

(a) Establishment.--In order to commemorate and interpret, in association with Tuskegee University, the heroic actions of the Tuskegee Airmen during World War II, there is hereby established as a unit of the National Park System the Tuskegee Airmen National Historic Site in the State of Alabama.

(b) Description of Historic Site.--

(1) Initial parcel.--The historic site shall consist of approximately 44 acres, including approximately 35 acres owned by Tuskegee University and approximately 9 acres owned by the City of Tuskegee, known as Moton Field, in Macon County, Alabama, as generally depicted on a map entitled ``Tuskegee Airmen National Historic Site Boundary Map'', numbered NHS-TA-80,000, and dated September 1998. Such map shall be on file and available for public inspection in the appropriate offices of the National Park Service.

(2) Subsequent expansion.--Upon completion of agreements regarding the development and operation of the Tuskegee Airmen National Center as described in subsection 304, the Secretary is authorized to acquire approximately 46 additional acres owned by Tuskegee University as generally depicted on the map referenced in paragraph (1). Lands acquired by the Secretary pursuant to this paragraph shall be administered by the Secretary as part of the historic site.

(c) Property Acquisition.--The Secretary may acquire by donation, exchange, or purchase with donated or appropriated funds the real property described in subsection (b), except that any property owned by the State of Alabama, any political subdivision thereof, or Tuskegee University may be acquired only by donation. Property donated by Tuskegee University shall be used only for purposes consistent with the purposes of this title. The Secretary

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may also acquire by the same methods personal property associated with, and appropriate for, the interpretation of the historic site.

(d) Administration of Historic Site.--

(1) In general.--The Secretary shall administer the historic site in accordance with this title and the laws generally applicable to units of the National Park System, including the Act of August 25, 1916 (commonly known as the National Park Service Organic Act; 16 U.S.C. 1 et seq.), and the Act of August 21, 1935 (commonly known as the Historic Sites, Buildings, and Antiquities Act; 16 U.S.C. 461 et seq.).

(2) Role of Tuskegee university.--The Secretary shall consult with Tuskegee University as its principal partner in determining the organizational structure, developing the ongoing interpretive themes, and establishing policies for the wise management, use and development of the historic site. With the agreement of Tuskegee University, the Secretary shall engage appropriate departments, and individual members of the University's staff, faculty, and students in the continuing work of helping to identify, research, explicate, interpret, and format materials for the historic site. Through the President of the University, or with the approval of the President of the University, the Secretary shall seek to engage Tuskegee alumni in the task of providing artifacts and historical information for the historic site.

(3) Role of Tuskegee airmen.--The Secretary, in cooperation with Tuskegee University, shall work with the Tuskegee Airmen to facilitate the acquisition of artifacts, memorabilia, and historical research for interpretive exhibits, and to support their efforts to raise funds for the development of visitor facilities and programs at the historic site.

(4) Development.--Operation and development of the historic site shall reflect Alternative C, Living History: The Tuskegee Airmen Experience, as expressed in the final special resource study entitled ``Moton Field/Tuskegee Airmen Special Resource Study'', dated September 1998. Subsequent development of the historic site shall reflect Alternative D after an agreement is reached with Tuskegee University on the development of the Tuskegee Airmen National Center as described in section 304.

(e) Cooperative Agreements Generally.--The Secretary may enter into cooperative agreements with Tuskegee University, other educational institutions, the Tuskegee Airmen, individuals, private and public organizations, and other Federal agencies in furtherance of the purposes of this title. The Secretary shall consult with Tuskegee University in the formulation of any major cooperative agreements with other universities or Federal agencies that may affect Tuskegee University's interests in the historic site. To every extent possible, the Secretary shall seek to complete cooperative agreements requiring the use of higher educational institutions with and through Tuskegee University.

SEC. 304. TUSKEGEE AIRMEN NATIONAL CENTER.

(a) Cooperative Agreement for Development.--The Secretary shall enter into a cooperative agreement with Tuskegee University to define the partnership needed to develop the Tuskegee Airmen National Center on the grounds of the historic site.

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(b) Purpose of Center.--The purpose of the Tuskegee Airmen National Center shall be to extend the ability to relate more fully the story of the Tuskegee Airmen at Moton Field. The center shall provide for a Tuskegee Airmen Memorial, shall provide large exhibit space for the display of period aircraft and equipment used by the Tuskegee Airmen, and shall house a Tuskegee University Department of Aviation Science. The Secretary shall insure that interpretive programs for visitors benefit from the University's active pilot training instruction program, and the historical continuum of flight training in the tradition of the Tuskegee Airmen. The Secretary is authorized to permit the Tuskegee University Department of Aviation Science to occupy historic buildings within the Moton Field complex until the Tuskegee Airmen National Center has been completed.

(c) Report.--Within <<NOTE: Deadline.>> 1 year after the date of the enactment of this Act, the Secretary, in consultation with Tuskegee University and the Tuskegee Airmen, shall prepare a report on the partnership needed to develop the Tuskegee Airmen National Center, and submit the report to the Committee on Resources of the House of Representatives and the Committee on Energy and Natural Resources of the Senate.

(d) Time for Agreement.--Sixty days after the report required by subsection (c) is submitted to Congress, the Secretary may enter into the cooperative agreement under this section with Tuskegee University, and other interested partners, to implement the development and operation of the Tuskegee Airmen National Center.

SEC. 305. GENERAL <<NOTE: Deadline.>> MANAGEMENT PLAN.

Within 2 complete fiscal years after funds are first made available to carry out this title, the Secretary shall prepare, in consultation with Tuskegee University, a general management plan for the historic site and shall submit the plan to the Committee on Resources of the House of Representatives and the Committee on Energy and Natural Resources of the Senate.

SEC. 306. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated to the Secretary to carry out this title, \$29,114,000.

APPENDIX B:

SELECTED INDIRECT LEGISLATIVE MANDATES



Selected Indirect Legislative Mandates - Alternative C

The following list includes references to some of the more relevant indirect legislative mandates for Alternative C as described in the SRS:

- Rehabilitated cultural landscape
- The SRS describes the interpretive focus of Alternative B as the primary flight training experience (1941-1946) of the Tuskegee Airmen at Moton Field (SRS pg. 167 par 1-2 and pg. 204) and further directs that Alternative C build upon Alternative B (SRS pg. 169 par 1) to promote a strong "stepping back into time" experience for visitors (SRS pg. 169 par 2). Consequently, all landscape rehabilitation alternatives explored in the GMP and DCP are to be framed to promote a greater understanding of the cultural landscape as it appeared during the 1941-1946 flight training period.
- Opportunities for exhibits and formal interpretation of broader themes associated with entire experience of the Tuskegee Airmen will be provided (SRS pg. 169 par 1)
- Rehabilitated landscape may include historical objects such as period aircraft (PT-17 Stearman and Piper Cub referenced on SRS pg. 167, par 4), vehicles, signs, fuel pumps, etc., in the outdoor areas of the complex to provide a strong sense of "stepping back into time" for visitors (SRS pg. 169 par 2)
- Wayside exhibits containing historic building photos and more interpretive content would be placed throughout the historic complex (SRS pg. 169 par 2)
- Rehabilitate entrance gate, reconstruct guard booth (SRS pg. 170 par 4)
- Pedestrian walks provided as described (SRS pg. 170 par 4 and map)
- Parking provided as described (SRS pg. 170 par 4 and map)
- Overlook created as described, vegetation cleared for views of complex (SRS pg. 170 par 4 and map)
- Tuskegee Airmen Memorial and Chief Anderson statue placed at overlook site (SRS pg. 170 par 5)
- Picnic area provided as shown (see map)
- Rehabilitate Hangar #1
- Exhibits include period training equipment, aircraft, photos, audio-visual programs, and other memorabilia (SRS pg. 169 par 3)
- Interior space to accommodate costumed interpreters (SRS pg. 169 par 3)
- Construct new building on site of Hangar #2
- Visitor and exhibit use for Hangar #2 will be combined with a proposed Tuskegee University Charles Alfred Anderson Department of Aviation Science
- Will include museum and visitor center functions with exhibits (SRS pg. 169 par 4)
- Interaction between students and visitors in Hangar #2 will be an integral part of the experience for both (SRS pg. 171 par 6)
- Include interactive (SRS pg. 171 par 6) interpretive and educational (SRS pg. 171 par 5) exhibits focusing on Tuskegee

- Airmen experience beyond Moton Field (SRS pg. 169 par 4)
- Provide educational and training opportunities to Tuskegee University Department of Aviation (TUDO) students (SRS pg. 171 par 5)
 - While a small portion of the space will be devoted to classrooms, the large majority will be used for exhibits (SRS pg. 171 par 7)
 - Include a small theater (SRS pg. 169 par 4)
 - Display period combat aircraft (SRS pg. 170 par 1)
 - Rehabilitate Control Tower
 - Include an elevator (SRS pg. 170 par 2)
 - Provide panoramic view (SRS pg. 170 par 2)
 - Rehabilitate All Ranks Club (SRS pg. 169 par 2)
 - Include reproduction furnishings (SRS pg. 171 par 4)
 - Include interpretive exhibits (SRS pg. 171 par 4)
 - Include food service capability (SRS pg. 171 par 4)
 - Include book store gift shop (SRS pg. 171 par 4)
 - Rehabilitate Locker Building (SRS pg. 169 par 2)
 - Adapt interior space for NPS administrative use (SRS pg. 171 par 3)
 - Rehabilitate Warehouse (SRS pg. 171 par 3)
 - Adapt interior space for NPS maintenance equipment (SRS pg. 171 par 3)
 - Stabilize Fire Protection Shed (SRS pg. 169 par 2, maps)
 - Stabilize Oil Storage Shed (SRS pg. 169 par 2, maps)
 - Stabilize Dope Storage Shed (SRS pg. 169 par 2, maps)
 - Provide a "ghost framework on the sites of four former historic buildings (SRS pg. 169

- par 2). The purpose of ghost structures will be to help reestablish the feeling of the complete complex by erecting a 3 dimensional framework or outline to depict the shape and size of the buildings (SRS pg. 168 par 3).
- "Ghost" framework at Flight Commander's Office (SRS pg. 169 par 2, maps)
 - "Ghost" framework at Army Supply Building (SRS pg. 169 par 2, maps)
 - "Ghost" framework at Water Systems Building (SRS pg. 169 par 2, maps)
 - "Ghost" framework at Physical Plant Building (SRS pg. 169 par 2, maps)

Indirect Legislative Mandates - Alternative D

The following list includes references to some of the more relevant indirect legislative mandates for Alternative D as described in the SRS:

- Construct TANC in location shown (SRS map)
- TANC to include full-scale military museum (SRS pg. 172 par 3)
- TANC to include a significant theater and/or auditorium component - IMAX a possibility (SRS pg. 172 par 4, SRS pg. 174 par 1)
- TANC to house TUDO (SRS pg. 172 par 6)
- The Tuskegee University component of the TANC would include...see text (SRS pg. 173 par 2)
- Lobby of TANC will serve as visitor contact point (SRS pg. 173 par 4)
- Lobby of TANC will include a "wall of honor" (SRS pg. 173 par 4)

- National partnership needed to fund and operate TANC (SRS pg. 174 par 4)
- One or more Federal agencies would share responsibility to develop and operate facility (SRS pg. 174 par 4). Tuskegee University and a non-profit would also participate in facility operation (SRS pg. 174 par 4)

APPENDIX C:

SERVICEWIDE LAWS AND POLICIES



Some of the Laws and executive orders that apply to the management of Tuskegee Airmen NHS are provided below.

NATIONAL PARK SERVICE ENABLING LEGISLATION

Act amending the Act of October 2, 1968 (commonly called Redwoods Act), March 27, 1978, P.L.95-250, 92 Stat. 163, 16 U.S.C. Subsection(s)(§§)1a-1, 79a-q

Act of August 25, 1916 (National Park Service Organic Act), Public Law (P.L.) 64-235, 16 United States Code (U.S.C.) §1 *et seq.* (*et seq.* (and the following ones))as amended

General Authorities Act, October 7, 1976, P.L.94-458, 90 Stat. 1939, 16 U.S.C. §1a-1 *et seq.*

National Parks and Recreation Act, November 10, 1978, P.L.95-625, 92 Stat. 3467; 16 U.S.C. §1 *et seq.*

Reorganization Act of March 3, 1933, 47 Stat. 1517

NPS OPERATIONS LAWS

Accessibility

Americans with Disabilities Act of 1990, P.L.101-336, 104 Stat. 327, 42 U.S.C. §12101

Architectural Barriers Act of 1968, P.L.90-480, 82 Stat. 718, 42 U.S.C. §4151 *et seq.*

Rehabilitation Act of 1973, P.L.93-112, 87 Stat. 357, 29 U.S.C. §701 *et seq.* as amended by the Rehabilitation Act Amendments of 1974, 88 Stat. 1617

Cultural Resources

American Indian Religious Freedom Act of 1978, P.L.95-341, 92 Stat. 469, 42 U.S.C. §1996

Antiquities Act of 1906, P.L.59-209, 34 Stat. 225, 16 U.S.C. §432 and 43 Code of Federal Regulations (CFR) 3

Archeological and Historic Preservation Act of 1974, P.L.93-291, 88 Stat. 174, 16 U.S.C. §469

Archeological Resources Protection Act of 1979, P.L.96-95, 93 Stat. 712, 16 U.S.C. §470aa *et seq.* and 43 CFR 7, subparts A and B, 36 CFR 79

Historic Sites Act of 1935, 49 Stat. 666; 16 U.S.C. §461-467

Museum Properties Act of 1955, P.L.84-127, 69 Stat. 242

Native American Graves Protection and Repatriation Act of 1990 (NAGPRA), P.L.101-601 U.S.C. §3001 *et seq.*

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Protection of Historic and Cultural Properties, Executive Order (E.O.)11593; 36 CFR 60, 61, 63, 800; 44 Federal Register (FR)6068

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APPENDIX F:

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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; protecting 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.

