



# **DEVELOPMENT OF ENERGY EFFICIENT VISITOR AND STUDENT EDUCATIONAL FACILITIES AT THE ALICE FERGUSON FOUNDATION’S HARD BARGAIN FARM ENVIRONMENT CENTER IN THE SCENIC EASEMENT OF PISCATAWAY PARK**

*NATIONAL CAPITAL PARKS–EAST*



ENVIRONMENTAL ASSESSMENT

*MAY, 2012*

**NATIONAL PARK SERVICE  
U.S. DEPARTMENT OF THE INTERIOR**

**NATIONAL CAPITAL PARKS—EAST  
PISCATAWAY PARK  
ACCOKEEK, MARYLAND**

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## **PROJECT SUMMARY**

The National Park Service (NPS) is proposing to support the Alice Ferguson Foundation (AFF), a not-for-profit organization and NPS cooperator, by providing planning and fiduciary support to perform several capital improvement projects and repairs on various structures on property they own within the scenic easements of Piscataway Park through this Environmental Assessment (EA). The project is to improve facilities and accommodations for existing and growing visitor and program needs at the AFF by constructing new classrooms, new overnight facilities, a new wetland boardwalk, and other support facilities at the Hard Bargain Farm Environment Center.

The Alice Ferguson Foundation brings over 8,000 school students and educators yearly to Piscataway Park for environmental field studies and investigations on its privately-owned, scenic easement land within Piscataway Park. The trigger, or cause, requiring federal action in regard to this development proposed for private property within Piscataway Park is based upon a long-standing scenic easement between the AFF and the NPS. This easement requires the advanced written approval of the Regional Director of the National Capital Region of the NPS prior to the construction of additional buildings, structures, or other physical facilities on the AFF property. It is this NPS approval that constitutes a federal action requiring compliance with the National Environmental Policy Act (NEPA) of 1969, as amended, and implementing regulations 40 CFR Parts 1500-1508, and NPS Director's Order #12 and Handbook, Conservation Planning, Environmental Impact Analysis, and Decision-Making (DO-12). Compliance with Section 106 of the National Historic Preservation Act of 1966 is occurring in parallel with the NEPA process.

The purpose of this project is to provide new interpretive and overnight accommodations, support facilities (including a wetland boardwalk), and provide additional parking on the site. The proposed facilities would be innovative, energy-efficient designs utilizing environmentally sensitive and sustainable materials. Systems designed to monitor and measure energy consumption/conservation at the new facilities are part of the design and would be incorporated into future programs to educate visitors about sustainable building and living, and about the energy usage 'footprint.'

The action is needed because current facilities are in dire need of upgrades and improvement to meet current and anticipated visitor and program needs. Moreover, the AFF Overnight Lodge (currently the Wareham Lodge), where students stay overnight in extended programs, needs to be replaced due to persistent moisture and mold problems that, if not eliminated, may endanger the health of its occupants. Temporary mold remediation has enabled the programs to continue at great expense to the AFF. Day-Use programs use a facility on an adjoining property that is not under the ownership or control of AFF, which exposes the AFF to both uncertainty about the future viability of the programs and potential liability issues, both of which the AFF hopes to eliminate. The new facilities would address the inadequacies and health issues that have surfaced in the current overnight Wareham Lodge and the off-site day-use pavilion.

The EA will analyze the impacts that would result from the implementation of two alternatives, including the No Action Alternative. The No Action Alternative (Alternative A) serves as the baseline by which all other alternatives are compared. Under the No Action alternative, there would be no new development at the AFF's Hard Bargain Farm Environment Center beyond routine repairs and/or cyclic maintenance activities and/or upgrades.

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The no action alternative assumes that visitor use for the AFF facilities currently found on the site would continue into the future. However, there may be reduction, and/or lack of improvement of certain programs due to existing problems (i.e. cancellation of the overnight experience due to high moisture and mold issues).

Under Alternative B, Support New Development at AFF, the NPS would support the new development proposed by AFF, ensuring such changes do not adversely impact the historic views, cultural or natural resources that Piscataway Park was established by the U.S. Congress to preserve. Actions would include:

- Constructing the new Grass Building (3,457 square feet) and associated facilities (i.e. decks, walkways, etc.).
- Constructing the new Moss Building area (11,523 square feet), and associated facilities (i.e. decks, cabins, etc.)
- Construct a wetland boardwalk, replacing an old trail, through the former pasture (wet meadow). This would include bridging the adjacent Accokeek Creek (a bridge from the previous trails, which is in disrepair, currently exists).
- Construct new parking areas, walkways, utilities, etc., that would support the new Grass and Moss building projects.

In keeping with the AFF's environmental mission, the Living Buildings would work in harmony with nature, making use of the sun, wind, and rain – and to conserve resources for others and for the future. Through these green facilities, students, teachers and visitors would experience numerous examples of the sustainable engineering and partnership with the natural world.

The Moss Lodge would replace the old Overnight (Wareham) Lodge, located on a shady hillside. Its roof reaches up to gather rain that would be purified to potable standards for use in both buildings. The day-use education center, called the Grass Building, would be built at the sunny edge of a field, its roof spreading out like flower petals to collect enough solar energy to generate all of the power for both buildings. The landscape would capture and filter storm water and use plant evapotranspiration and groundwater recharge to mimic the native hydrology of the site. Greywater from sinks and showers would be treated in constructed wetlands and also recharge the underground aquifer. Composting toilets would eliminate the current discharge of nitrogen and phosphorous to the ground water. Native landscaping would replace grass and barren soil.

Impacts of the proposed alternatives were assessed in accordance with NEPA which requires that impacts to park resources be analyzed in terms of their context, duration, and intensity. Several impact topics have been dismissed from further analysis because the proposed action alternative would result in negligible to no effects to those resources.

### **Note to Reviewers and Respondents:**

If you wish to comment on the EA, you may mail comments directly via US Post or submit them electronically. Before including your address, phone number, e-mail address, or other personal identifying information in your comment, you should be aware that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

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**Mailed comments can be sent to:**

Superintendent  
Attn: AFF EA  
National Capital Parks-East  
1900 Anacostia Drive, S.E.  
Washington, D.C. 20020

**Comments can also be submitted on-line by following the appropriate links at:**

[http://parkplanning.nps.gov/hard\\_bargain\\_farm](http://parkplanning.nps.gov/hard_bargain_farm)

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## **Chapter 1 – Purpose and Need**

### **1.1 Background**

The National Park Service (NPS) is proposing to support the Alice Ferguson Foundation (AFF), a not-for-profit organization, and NPS cooperator, by providing planning and fiduciary support to several capital improvement projects and repairs at the AFF's Hard Bargain Farm located in the scenic easements of Piscataway Park. The project is to improve accommodations for existing and growing visitor and program needs at the AFF facilities.

The AFF brings over 8,000 school students and educators yearly to Piscataway Park for environmental field studies and investigations from its privately-owned, scenic easement land, as well as on NPS-owned property within Piscataway Park. They provide teacher education and environmental education programs for elementary, middle, and high school students from public and private schools throughout the Metropolitan Washington area. Many of these programs are delivered on site at Hard Bargain Farm Environment Center in both day and overnight formats.

This environmental assessment (EA) analyzes two alternatives, including Alternative A - The no action alternative, and Alternative B - New Development at AFF. Under Alternative B, the NPS would support the design and construction of innovative, energy efficient, and sustainable classroom, additional parking, overnight facilities, and a wetland boardwalk. Under the No Action Alternative (Alternative A) the site would be managed in the same manner as it is currently, and there would be no change the current configuration of the site.

This EA has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969 and implementing regulations, 40 CFR 1500-1508, and NPS *Director's Order 12 and Handbook, Conservation Planning, Environmental Impact Analysis, and Decision-making* (NPS 2001). Compliance with Section 106 of the National Historic Preservation Act of 1966 has occurred in conjunction with the NEPA process.

### **1.2 Purpose and Need**

The purpose of this project is to provide new interpretive and overnight accommodations, support facilities (including a wetland boardwalk), and provide additional parking on the site. The proposed facilities would be innovative, energy-efficient designs utilizing environmentally sensitive and sustainable materials. Systems designed to monitor and measure energy consumption/conservation at the new facilities are part of the design and would be incorporated into future programs to educate visitors about sustainable building and living, and about the energy 'footprint.'

The action is needed because current facilities are in need of upgrades and improvements to meet current and anticipated visitor and program needs. The AFF Overnight Lodge, the Wareham Lodge, needs to be replaced due to persistent moisture and mold problems. Temporary mold remediation has enabled the programs to continue at great expense to the AFF. Day use programs use a facility on an adjoining property (the Wagner Community Center and Pool, owned and operated by the Moyaone Association) that is not under the ownership or control of AFF, which exposes the AFF to both uncertainty about the future viability of the programs and potential liability issues, both of which the AFF hopes to eliminate.

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### 1.3 Project Background

The AFF, a not-for-profit organization, is one of the most active users of the Piscataway Park, bringing over 8,000 school students and educators yearly to the park for environmental field studies and investigations from its Hard Bargain Farm Environment Center located on private land within the boundaries of the park. As part of the formation of Piscataway Park in 1965, the AFF agreed to scenic easements with the federal government on its private property. In 1968, AFF transferred ownership of approximately 85 acres of land between the current farm property and the Potomac River to the NPS to ensure its protection from nearby shoreline development plans and to help establish Piscataway Park. This marked the beginning of the long history of cooperation with the NPS. Similar to the other privately owned properties (scenic easements) within Piscataway Park, NPS interests in the AFF Hard Bargain Farm Environment Center is identified in the property deeds. Institutional controls on development, cutting trees, and other actions that could potentially adversely impact the historic views from the Mount Vernon estate across the Potomac River in Virginia and from Fort Washington, require advance NPS approval.

The land AFF donated to the NPS when Piscataway Park was created included the condition that the AFF would retain the right to use the land for activities consistent with the NPS mission and the AFF educational mission. A Cooperative Agreement between the NPS and the AFF formalizes the relationship and goes further to address details, including a requirement for the NPS National Capital Region Director's approval for various activities, such as new development and capital improvements, on the otherwise private property. Section 3, Part E states: "No additional buildings, structures, or other physical facilities shall be constructed on said lands by the Alice Ferguson Foundation, Inc., without first obtaining written approval of the Regional Director of the National Capital Region, National Park Service." In addition, AFF can apply for NPS Special Use Permits to actively utilize approximately 225 acres of federal parkland in Piscataway Park for their programs and activities.

A scenic easement, between NPS and AFF, was signed on February 14<sup>th</sup>, 1968, and states in section 8: "...and (2) that the Foundation may erect such buildings as are required in connection with its major education and community interests and existing farm building may remain or new farm buildings may be erected if required to further the Foundation's educational and agricultural program; providing the location and type of the new buildings have the written approval of the Secretary of the Interior or his authorized representative prior to construction. In no case is any building to be constructed on the lands described herein which, when completed, is to be used for any of the purposes which are expressly prohibited in this instrument."

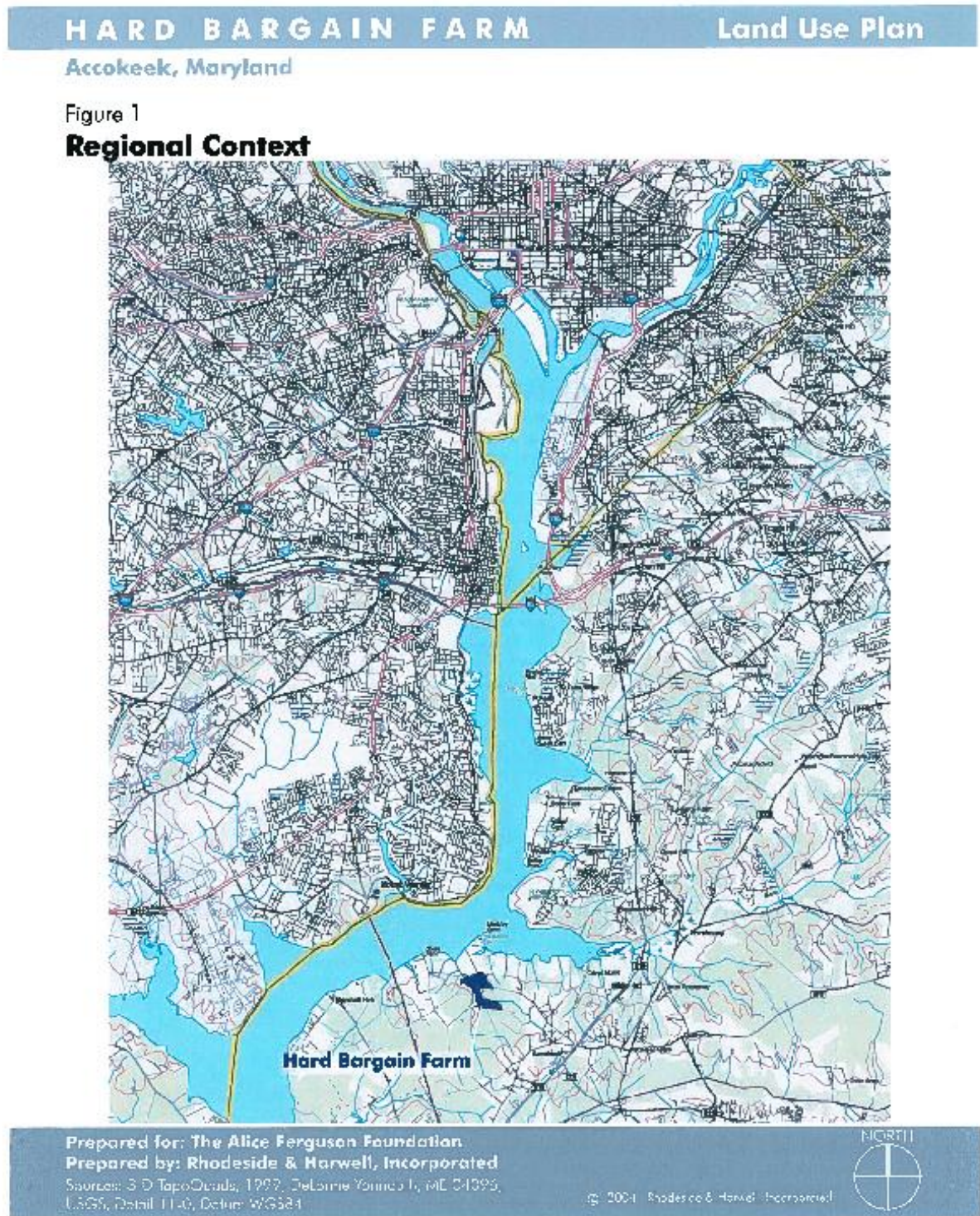
Alice Ferguson Foundation, in keeping with the park's mandate to preserve lands which comprise the principal viewsheds of Mount Vernon and Fort Washington, and continuing the active environmental education and stewardship programs at their Hard Bargain Farm Environment Center, has developed plans for undertaking several capital improvement projects on their property within the Piscataway Park scenic easement. The NPS provides funding and planning support to the AFF with these projects. It is the use of federal funds and the requirement for NPS approval for proposed development, on this otherwise privately-owned property within the scenic easement of Piscataway Park, that constitute a federal action or the federal 'trigger,' that requires adherence to NEPA, and thus an EA.



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The proposed new facilities at AFF may be the first *Living Buildings* in the country. A Living Building goes beyond the LEED certification under the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) program, which recognizes achievement in the areas of Site, Water, Energy, Materials, Indoor Environmental Quality and Innovation. A Living Building eliminates impact to the local and global environment.

**Figure 1: Project Area (large)**





"PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 20368, EXPIRATION DATE: JULY 14, 2010."



CLIENT SHALL BE AWARE THAT THIS PLAN SET HAS NOT BEEN SUBMITTED TO ANY LOCAL, STATE, OR FEDERAL AGENCY FOR REVIEW OR APPROVAL. PLEASE NOTE THIS SET IS SUBJECT TO CHANGE.

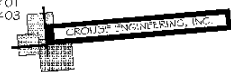
## HARD BARGAIN FARM

11TH ELECTION DISTRICT, PRINCE GEORGE'S COUNTY, MARYLAND

EXISTING CONDITIONS & DEMOLITION PLAN

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## Purpose and Significance of Piscataway Park

Units of the National Park Service are established by Congress to fulfill specified purposes. A park unit's purpose is the fundamental building block for its decisions to protect scenery, conserve resources, and "...to allow visitation in such a manner as to leave these resources unimpaired for the enjoyment of future generations" (NPS 1916 Organic Act). National Capital Parks-East, a unit of the National Park Service, has the same obligation to protect and preserve resources as every unit of the National Park system.

Among the legislated purposes of Piscataway Park is to preserve the historic and scenic values, the unusual cultural, scientific, and recreational values, and the present open and wooded character of this area along the Potomac River in Prince George's County and Charles County, Maryland, in order to protect and preserve lands which constitute the principal overview from the historic Mount Vernon Estate and Fort Washington, in a manner that will insure, insofar as practicable, the natural beauty of such lands as it existed at the time of the construction and active use of Mount Vernon mansion and Fort Washington.

Piscataway Park was established on October 4, 1961 by Public Law 87-362 to protect the scenic resources visible from Fort Washington and the Mount Vernon estate on the Virginia side of the Potomac River. Public Law 93-444 expanded Piscataway Park to include the Marshall Hall tract in 1974, and three additional tracts totaling 195 acres were added along the northern shore of Piscataway Creek between 1998 and 2001.

The purpose of the park is to preserve lands in the State of Maryland comprising the principal viewsheds from the historic Mount Vernon estate and Fort Washington. Such preservation ensures the natural beauty of such land as it existed at the time of the construction, and active use of Mount Vernon mansion and Fort Washington.

## NPS Policies and Plans

Created and approved in 1983, the *Piscataway Park General Management Plan* guides the overall management and use of the park's resources. In accordance with the NPS Organic Act of 1916 (Organic Act), the plan ensures the perpetuation of the park's natural and cultural resources and the scenic setting for present and future public enjoyment. The plan also provides the foundation for subsequent detailed implementation plans, programs, and operations. The plan, as directed by the enabling legislation, provides for:

- The preservation of the view from the Mount Vernon estate across the Potomac River and Fort Washington, just upriver;
- The preservation of the park's historic and cultural values for the benefit of present and future generations;
- The preservation and protection of the park's ecological resources for the benefit of present and future generations;
- Parkland and open space where Piscataway's natural beauty can be enjoyed by present and future generations; and
- Public use and access.

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NPS Organic Act and Management Policies - By enacting the Organic Act, Congress directed the U.S. Department of the Interior and the NPS to manage units "...to conserve the scenery and the natural and historic objects and wildlife therein and to provide for the enjoyment of the same in such a manner and by such a means as will leave them unimpaired for the enjoyment of future generations" (16 U.S.C. § 1). Congress reiterated this mandate in the Redwood National Park Expansion Act of 1978, by stating that NPS must conduct its actions in a manner that will ensure no "...derogation of the values and purposes for which these various areas have been established, except as may have been or shall be directly and specifically provided by Congress" (16 U.S.C. § 1a-1).

Despite these mandates, the Organic Act and its amendments afford the NPS latitude when making resource decisions that balance visitor recreation and resource preservation. By these acts, Congress "...empowered [the NPS] with the authority to determine what uses of park resources are proper and what proportion of the parks resources are available for each use" (*Bicycle Trails Council of Marin v. Babbitt*, 82 F.3d 1445, 1453 (9th Cir. 1996)).

Because conservation remains predominant, the NPS seeks to avoid or to minimize adverse impacts on park resources and values. Yet, the NPS has discretion to allow negative impacts when necessary (*Management Policies 2006*). However, while some actions and activities cause impacts, the NPS cannot allow an adverse impact that constitutes resource impairment (*Management Policies 2006*). The Organic Act prohibits actions that permanently impair park resources unless a law directly and specifically allows for the acts (16 U.S.C. 1a-1). An action constitutes an impairment when its impacts "...harm the integrity of park resources or values, including the opportunities that otherwise would be present for the enjoyment of those resources or values" (*Management Policies 2006*). To determine impairment, the NPS must evaluate "...the particular resources and values that would be affected; the severity, duration, and timing of the impact; the direct and indirect effects of the impact; and the cumulative effects of the impact in question and other impacts" (*Management Policies 2006*).

National Park Service units vary based on their enabling legislation, natural resources, cultural resources, and missions. Management activities appropriate for each unit and for areas within each unit vary as well. An action appropriate in one unit could impair resources in another unit. Thus, this EA will analyze the context, duration, and intensity of impacts related to the improvements and repairs of visitor accommodations and the shoreline stabilization at Piscataway Park along the Potomac River. It will also analyze the potential for resource impairment, as required by *Director's Order 12: Conservation Planning, Environmental Impact Analysis and Decision-making* (NPS 2001).

National Parks Omnibus Management Act of 1998 (NPOMA) - NPOMA (16 U.S.C. 5901 et seq.) underscores NEPA in that both are fundamental to NPS park management decisions. Both acts provide direction for articulating and connecting the ultimate resource management decision to the analysis of impacts, using appropriate technical and scientific information. Both also recognize that such data may not be readily available, and provides options for resource impact analysis should this be the case.

NPOMA directs the NPS to obtain scientific and technical information for analysis. The NPS handbook for *Director's Order 12* states that if "...such information cannot be obtained due to excessive cost or technical impossibility, the proposed alternative for decision will be modified



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to eliminate the action causing the unknown or uncertain impact or other alternatives will be selected” (*Management Policies 2001*, section 4.4).

Director’s Order #28: Cultural Resource Management - *Director’s Order #28* calls for the NPS to protect and manage cultural resources in its custody through effective research, planning, and stewardship; and in accordance with the policies and principles contained in the NPS Management Policies. This order also directs the NPS to comply with the substantive and procedural requirements described in the Secretary of the Interior’s *Standards and Guidelines for Archeology and Historic Preservation*. Additionally, the NPS will comply with the 2008 Servicewide Programmatic Agreement with the Advisory Council on Historic Preservation and the National Conference of State Historic Preservation Officers. The accompanying handbook to this order addressed standards and requirements for research, planning, and stewardship of cultural resources, as well as the management of archeological resources, cultural landscapes, historic and prehistoric structures, museum objects, and ethnographic resources.

### Federal Laws

The NPS is governed by laws, regulations, and management plans before, during, and following any management action related to the developed NEPA document.

National Environmental Policy Act, 1969, as Amended - The National Environmental Policy Act is implemented through regulations of the Council on Environmental Quality (40 CFR 1500-1508). The NPS has in turn adopted procedures to comply with the act and the Council of Environmental Quality (CEQ) regulations, as found in Director’s Order #12: *Conservation Planning, Environmental Impact Analysis, and Decision Making* (2001), and its accompanying handbook.

Redwood National Park Act of 1978, as Amended - All NPS units are to be managed and protected as parks; whether established as a recreation area, historic site, or any other designation. This act states that the NPS must conduct its actions in a manner that will ensure no “...derogation of the values and purposes for which these various areas have been established, except as may have been or shall be directly and specifically provided by Congress.”

Endangered Species Act of 1973, as Amended - This act requires all federal agencies to consult with the Secretary of the Interior on all projects and proposals with the potential to impact federally endangered or threatened plants and animals.

National Historic Preservation Act of 1966, as Amended - Section 106 of this act requires federal agencies to consider the effects of their undertakings on properties listed or potentially eligible for listing on the National Register of Historic Places. All actions affecting the Parks cultural resources must comply with this legislation.

Executive Order 11990 - Protection of Wetlands - This executive order directs the NPS to avoid to the extent possible the long- and short-term adverse impacts associated with the destruction or modification of wetlands, and to avoid direct or indirect support of new construction in wetlands wherever there is a practicable alternative.

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Executive Order 11593 - Protection and Enhancement of the Cultural Environment - This executive order directs the NPS to support the preservation of cultural properties and to identify and nominate to the National Register cultural properties within the park, as well as to “...exercise caution... to assure that any NPS-owned property that might qualify for nomination is not inadvertently transferred, sold, demolished, or substantially altered.”

### Local Laws

Chesapeake Bay Agreement - In 1983 and 1987, the states of Maryland, Virginia, Pennsylvania; the District of Columbia; the Chesapeake Bay Commission; and the U.S. Environmental Protection Agency signed an agreement that established the Chesapeake Bay Program to protect and restore the Chesapeake Bay’s ecosystem. This agreement committed to: living resource protection and restoration, vital habitat protection and restoration, water quality protection and restoration, sound land use, and stewardship and community engagement. In June of 2000, the State of Maryland, Commonwealth of Virginia, the Commonwealth of Pennsylvania, the District of Columbia, the U.S. Environmental Protection Agency (USEPA), and the Chesapeake Bay Commission signed Chesapeake 2000, a new Agreement for restoration of the Chesapeake Bay. This agreement is commonly referred to as ‘C2K’, and the signatories pledged to achieve over 100 specific actions designed to restore the health of the bay and its living resources (Chesapeake Bay Program 2000).

## **1.4 Scoping Process and Public Participation**

The Alice Ferguson Foundation hosted planning charrettes/scoping on November 5-8, 2006 at the AFF. The design team included nationally renowned green design firms. Using an integrative design process, they created buildings that have a positive, regenerative effect on the local environment. The week-long sustainable design charrette in November 2006 included broad public outreach and stakeholder involvement. The resultant design embodied the constructive commentary of all interested stakeholders.

The goals of incorporating a wide range of energy-efficient materials and innovative and sustainable practices in the building design and in ultimate site operations that would be incorporated in the overall environmental education programs at the Hard Bargain Farm Environment Center were clearly identified. Questions, concerns, and potential issues raised at the meeting included visitor experience, location of proposed new development and support facilities, visual intrusion (landscape and historic viewsheds), archaeology, wetlands, and species of special concern.

A letter was sent out to all adjacent landowners on September 12, 2011 announcing the review of a Special Exception to the Development Review Division of The Maryland National Capital Park and Planning Commission (“M-NCPPC”). The notice was an opportunity to interact with the applicant prior to the application for construction being sent out.

An informational meeting about the Potomac Watershed Study Center was held on September 29, 2011. Project team members were available for questions and answers and a PowerPoint presentation was presented to the group. Invitees included Moyaone Reserve landowners; Greater Accokeek Citizens Association members; county and state legislators and their staff members; AFF members; and staff of other local non-profit organizations.

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Public scoping was held through the [parkplanning.nps.gov](http://parkplanning.nps.gov) website from October 12, 2011 through November 14, 2011. Two comments were received during this period. One was positive and supported the project, while the other addresses a couple of concerns which will be covered under impact topics.

## **1.5 Issues and Impact Topics**

An issue is an effect on a physical, biological, social, or economic resource. The predicted effects of an activity create the issue. Issues describe problems or concerns associated with current impacts from environmental conditions or current operations, as well as problems that may arise from the implementation of any of the alternatives. Potential issues associated with this project were identified by the public, park staff, and input from other agencies consulted.

The main issue at AFF is that the current facilities are in need of upgrades and improvement to meet current and anticipated visitor and program needs. Listed below are some of the current problems with the current buildings:

- Mold (which has been temporarily remediated) cannot be completely controlled. The underground cinder block wall sealant has disintegrated over the years, letting water seep into the building. Also, there are no French drains uphill from the building to divert water that seeps in from the hill above.
- Humidity levels cannot be controlled, especially in lower level, even with air conditioning and dehumidifiers running all day and night.
- The entire building is settling into the ground, crushing tiles in both bathrooms and popping floor tiles in the upper floor.
- There are outdated electrical lines and plumbing throughout the infrastructure.
- The design of the original roofing meeting up with added porch roofing is conducive to water sheeting on the wood siding, leading to rot.

Finally, the day-use programs use a facility on an adjoining property that is not under the ownership or control of AFF, which exposes the AFF to both uncertainty about the future viability of the programs and potential liability issues.

## **1.6 Impact Topics Analyzed in this EA**

The following impact topics are discussed and analyzed in the Affected Environment chapter and the Environmental Consequences chapter. These chapters describe the affected environment for each impact topic analyzed and present the potential impacts of implementing any of the alternatives. The topics are resources of concern that could be beneficially or adversely affected by the actions proposed under each alternative and were developed to ensure that the alternatives are evaluated and compared based on the most relevant resource topics. These impact topics were identified based on the following: issues raised during scoping, federal laws, regulations, executive orders, NPS *2006 Management Policies*, and NPS knowledge of limited or easily impacted resources. A brief rationale for the selection of each impact topic is given below, as well as the rationale for dismissing specific topics from further consideration.



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### *Vegetation*

The project site is located among a stand of trees, so there would be some tree loss associated with the expansion and addition of these building. Due to this tree loss, vegetation is addressed as an impact topic in this EA.

### *Soils*

Activities associated with the proposed project would disturb an area of approximately 16,000 square feet, resulting in the loss of soil productivity and perviousness, and increasing the potential for soil erosion and loss of topsoil during construction. As a result of potential impacts to soils from the no action and proposed action alternatives, soils are addressed as an impact topic in this EA.

### *Wetlands*

The area where a boardwalk is proposed to be built, along the alignment of an old trail that used to traverse the grounds, has been flooded since the 1990's. The reason that particular alignment was chosen is because the proposed trail is replacing a previously existing one in the same corridor. In addition, NPS does not own the property, but rather holds a scenic easement over the land with the AFF.

The proposed Grass Building site is approximately 100 feet away from the only wetland (delineated) in the vicinity of the project area, and is not situated (i.e. down-grade) such that it should be impacted by the proposed project. Therefore, an NPS Statement of Findings (SOF), which provides a detailed description of wetland impacts and documents the rationale for identifying a preferred alternative that has adverse impacts on wetlands, is not required. (A SOF documents compliance with the policies and requirements of Director's Order #77-1 and these procedures).

Due to the boardwalk, wetlands are addressed as an impact topic in this EA. However, since the boardwalk is in an existing trail corridor, and the buildings are not situated on wetlands, a Wetlands SOF is not required.

### *Floodplains*

Executive Orders 11988 (Floodplain Management) requires an examination of impacts to floodplains and the potential risk involved in placing facilities within floodplains. The NPS *2006 Management Policies*, Section 4.6.4, Floodplains; and the 1993 NPS Floodplain Management Guidelines - DO-77-2 - provide guidelines on developments proposed in floodplains.

Most of the proposed wetland boardwalk falls within the Accokeek Creek floodplain as well as the Chesapeake Bay Critical Area (CBCA). Due to the fact that the proposed boardwalk is replacing an existing trail and bridge (there are still remains in place from the old alignment) a SOF is not required. However, floodplains are addressed as an impact topic in this EA.

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### *Cultural Resources*

The NHPA (16 USC 470 et seq.), NEPA, Organic Act, NPS Management Policies 2006 (NPS 2006a), DO-12, and DO-28 require the consideration of impacts on any cultural resources on park lands that might be affected. NHPA, in particular, addresses impacts on cultural resources either listed in, or eligible to be listed in, the NRHP. As defined by NPS, cultural resources include archeological resources, museum objects, ethnographic resources, historic districts and structures, and cultural landscapes. For this study, efforts to identify cultural resources included a review of information provided by the park, supplemented by interviews with park staff and other published and unpublished sources, including the listings of the NRHP.

The project area contains and has the potential to impact archeology. Piscataway Park has been occupied by American Indians for thousands of years before the first Europeans arrived, and there are numerous archeological sites. Therefore, the EA includes assessment of potential impacts to this resource. Ethnography, Cultural landscapes, historic structures and districts, and museum collections have been dismissed from further analysis.

### *Visitor Use and Experience*

Construction activities to the proposed development of AFF facilities would have an impact on visitor use and experience, and would impact the visitor experience during that time. Students would not be able to use the facilities during construction of the new structures, and the area would experience a slight increase in traffic due to construction equipment. Therefore, this impact topic was included for analysis in the EA.

## **1.7 Impact Topics Dismissed from Further Analysis and Consideration**

The following impact topics were eliminated from further analysis in this EA. A brief rationale for dismissal is provided for each topic. With mitigation, potential impacts to these resources would be negligible and localized.

### *Scenic Resources - Viewsheds*

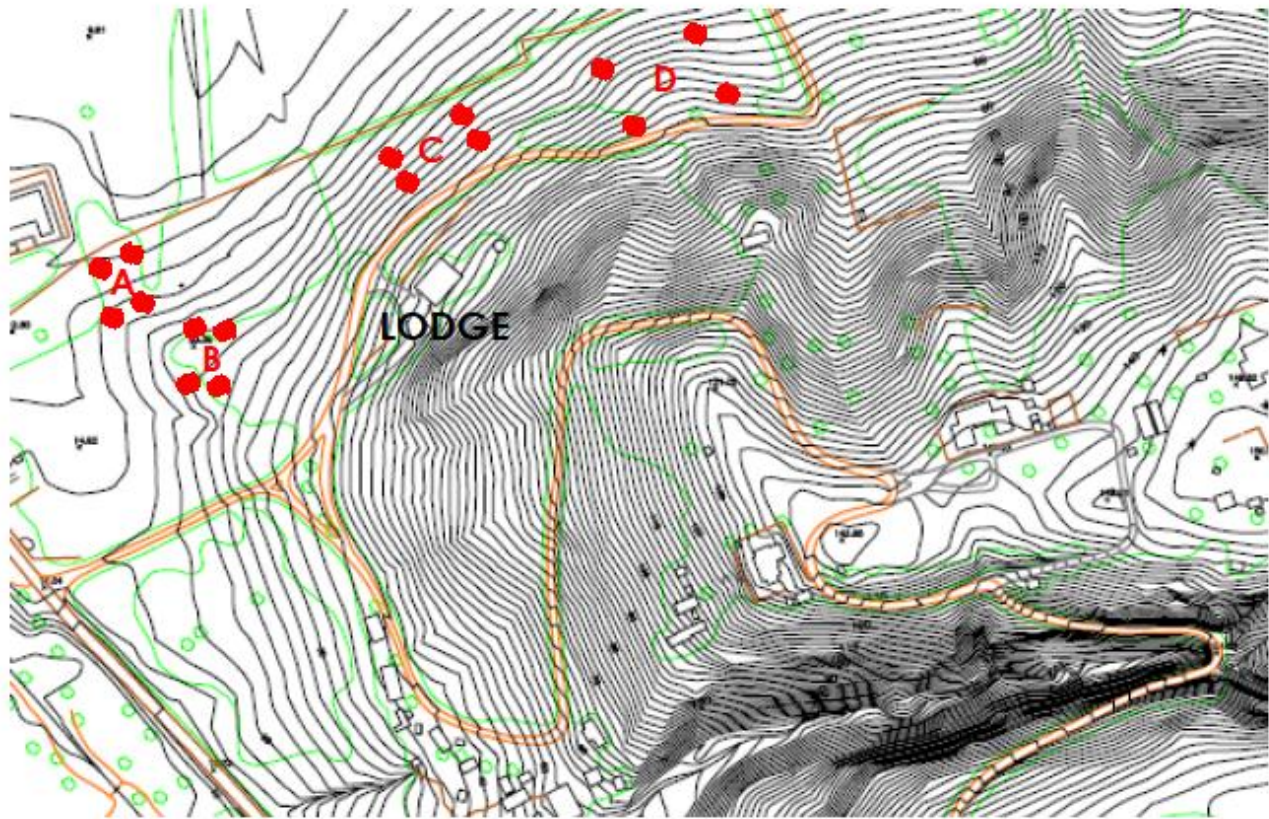
Among the legislated purposes of Piscataway Park is to preserve the historic and scenic values, the unusual cultural, scientific, and recreational values, and the present open and wooded character of this area along the Potomac River in Prince George's and Charles County, Maryland, in order to preserve lands which the principal overview from the historic Mount Vernon Estate and Fort Washington, in a manner that will insure, insofar as practicable, the natural beauty of such lands as it existed at the time of the construction and active use of Mount Vernon Mansion and Fort Washington. The project site is within the Piscataway Park scenic easement which was developed to provide for the preservation of historic scene.

As with any tree cutting and/or development proposed for the scenic easement areas of Piscataway Park, an assessment of the potential action on the viewsheds from Mount Vernon and Fort Washington and the general wooded appearance of the area, is first performed. To assess the potential impacts of the action alternative proposed in this document, a balloon test was performed in January, 2007. Large helium-filled balloons were placed at the potential building

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sites at the approximate maximum height of the proposed development. The sites were then viewed from Mount Vernon and Fort Washington to see if the balloons were visible (see Figure 3). In no case were the balloons visible from either site. In a letter dated April 21, 2009, the Mount Vernon Associate Director for Preservation wrote that structures less than 52 feet tall are invisible from the historic estate (see Appendix C). The highest point on the structures proposed in the action alternative is 43 feet high. Therefore, this topic was dismissed.

**Figure 3: Balloon Test Locations**



Potomac River Habitat Study Complex  
rev. 10/10/06

**Locations for Balloon Test**  
M2A/RVA

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## *Water Quality and Hydrology*

The 1972 Federal Water Pollution Control Act, as amended by the Clean Water Act of 1977, is a national policy to restore and maintain the chemical, physical, and biological integrity of the nation's waters; enhance the quality of water resources; and to prevent, control, and abate water pollution. The NPS *2006 Management Policies* provides direction for the preservation, use, and quality of water originating, flowing through, or adjacent to park boundaries. The NPS seeks to restore, maintain, and enhance the water quality within the parks consistent with the 1972 Federal Water Pollution Control Act, as amended, and other applicable federal, state, and local laws and regulations.

During the construction of the proposed facilities, soils would be exposed, creating an increased potential for erosion and/or transport of surface pollutants ultimately into Accokeek Creek and the Potomac River. An erosion and sediment control plan would be developed prior to construction, pursuant to the Maryland Department of Environment Erosion and Sediment Control Program. This plan would outline measures and protocols to be implemented during construction aimed at reducing erosion of exposed soils, slowing the rate at which water leaves the site, and capturing eroded soils and concentrated nutrients before entering the downstream water flow. In addition, due to the topography of the site and the distance to any stream, stormwater runoff on the site not captured by the stormwater conveyance system would flow through grassed and forested areas before entering any tributary, effectively capturing eroded soils and nutrients before entering the watershed. Due to the site's topography, proper implementation of these measures would reduce the potential for adversely impacting water quality, and the resultant adverse impacts to the water quality of Accokeek Creek and the Potomac River during the construction would be negligible and of short duration and occur only during storm events.

During construction, protocols would also be developed to protect against potential groundwater contamination during construction, including implementing proper on-site refueling techniques, properly storing and handling of hazardous materials, and developing notification and containment procedures in the event of a spill. These protocols would also provide protection to the overall quality of surface waters and would help ensure that any spills that may occur are contained and cleaned up prior to entering any ground or surface waters via either overland flows or stormwater conveyance systems.

After construction, under any of the action alternatives, the total amount of impervious surface on the site would only increase by 16,000 square feet (.36 acres). Increasing the total amount of impervious surfaces can increase both the volume of stormwater runoff and the amount of sediments and pollutants transported to the Potomac River during storm events. Under the action alternative, and in accordance with Maryland Department of Environment guidelines, there would be no noticeable permanent change in the volume of stormwater discharge generated on the site. Fundamental to the innovative and energy-efficient site design is sustainable treatment of stormwater, utilizing stormwater for watering landscaping, pervious surfaces to increase infiltration, groundwater recharge, and reduce runoff. These systems are part of normal site operations and interpretation/education experiences to be offered at the site. As a result, this impact topic was dismissed from further analysis in this EA.

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### *Rare, Threatened, and Endangered Species and Wildlife*

The Endangered Species Act (1973), as amended, requires an examination of impacts on all federally-listed threatened or endangered species. NPS policy also requires examination of the impacts on federal candidate species, as well as state listed threatened, endangered candidate, rare, declining, and sensitive species.

The project is not expected to pose impacts any state- or federally-listed species. To confirm this assumption, on February 17, 2009, the Park sent letters to both the U.S. Fish and Wildlife Service (FWS) and to the Maryland Department of Natural Resources (MDDNR), Wildlife and Heritage Service regarding the potential for any state- or federally-listed species that could be affected by the proposed action.

On February 25, 2009, the FWS responded to the Park's initial consultation letter stating that (see appendix), except for the occasional transient individuals, no federally proposed or listed endangered or threatened species are known to exist within the project impact area. The FWS also identified their additional concern about wetlands protection, and Federal and state partners of the Chesapeake Bay Program adapting an interim goal of no net loss of the Basin's remaining wetlands, and the long term goal of increasing the quality and quantity of the Basin's wetlands resource base. As a result from the above consultations, this impact topic was dismissed from further analysis in this EA.

On April 20, 2009, the MD-DNR responded to the Park's consultation letter (see Appendix) and referenced their six records of rare, threatened or endangered plants and animals from Mockley Point and from Accokeek Creek, one-half mile, and one-quarter mile, respectively, from the study site. MDDNR also provided guidelines for protecting forest interior dwelling birds that they strongly encouraged to be incorporated into the site design. Therefore, this impact topic was dismissed from further analysis in this EA.

### *Cultural Landscapes*

According to the National Park Service's *Cultural Resource Management Guideline* (NPS-28), a cultural landscape is: "...a reflection of human adaptation and use of natural resources and is often expressed in the way land is organized and divided, patterns of settlement, land use, systems of circulation, and the types of structures that are built. The character of a cultural landscape is defined both by physical materials, such as roads, buildings, walls, and vegetation, and by use reflecting cultural values and traditions."

Piscataway Park was developed in order to protect the views from the historic Mount Vernon estate (George Washington's plantation) across the Potomac River, and from Fort Washington, across Piscataway Creek. Mid-twentieth century development threats along Maryland's shore across from Mount Vernon included residential and industrial proposed uses from high-rise apartment buildings, oil storage tanks, and a sewage treatment plant (Meringolo 2008). Mount Vernon was honored with National Historic Landmark status in 1960 coinciding with the fight for its celebrated viewshed. Spanning nearly 10 years, the efforts of local residents and property owners, preservationists, and the Mount Vernon Ladies Association (the steward of Mount Vernon), saw President John F. Kennedy sign the creation of the Accokeek shoreline to protect the view from Mount Vernon into public law (Public Law 87-362). The NPS received

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Congressional approval in 1961 to purchase property for creation of Piscataway Park; however, it was not fully realized until 1967. Today the park covers approximately 5,000 acres and stretches six miles along the Maryland shore of the Potomac River.

Piscataway Park is a significant cultural landscape, which was listed on the National Register of Historic Places (NRHP) in 1979 for its importance related to the Mount Vernon and Fort Washington viewsheds across the Potomac River. Taken from the nomination, “Piscataway Park is principally significant for its role in maintaining the vista across the Potomac River from Mount Vernon and from Fort Washington.” As the only unit of the NPS established specifically to protect the environment of a privately owned historic property, it is secondarily important as a new departure in the recent history of Federal conservation activity. The park itself is not significant for particular on-site landmarks or features excepting the separately nominated features... [Accokeek Creek site and Marshall Hall]; its value derives from its general scenic character as viewed from across the Potomac (Goeldner and Mackintosh 1979). Because the undertaking would neither alter the park’s function nor modify its open and wooded landscape, there would be no effect on significant cultural landscapes. The park’s significance is centered on its association with Mount Vernon’s viewshed, which would not be affected due to this undertaking. The NPS’s goal is to continue preserving the natural and scenic landscape the park provides for the public and visitors to Mount Vernon. Therefore, cultural landscapes were dismissed as an impact topic.

#### *Historic Structures and Districts*

The Alice Ferguson Foundation farmhouse is eligible for listing on the *National Register of Historic Places*. The NPS has determined that this project poses no adverse impact to the historic setting of the farmhouse (it is a considerable distance from the farmhouse and not in the viewshed) and is consistent with the mission and activities described in its Cooperative Agreement with the AFF. The NPS has also found that the proposed project has been carefully designed and avoids impacts to the historic views from Mount Vernon and Fort Washington (fundamental to the Congressionally legislated purposes of Piscataway Park), and on the natural wooded appearance of the area.

Marshall Hall, located at the southern end of Piscataway Park in Charles County, was individually listed to the NRHP in 1975. Marshall Hall is significant as the “...largest dwelling house in Southern Maryland to be documented as dating before 1740...” and for its association with the Marshall family, one of the regions “...most socially prominent and affluent families...” (Rivoire 1975). Just prior to its listing to the National Register of Historic Places, it was included within the boundaries of Piscataway Park.

The distance between the proposed actions and Marshall Hall is too great to cause any potential impacts to the historic features of the listed property. The current setting would be preserved and its viewshed would not be affected due to either of the proposed alternatives. Therefore, historic structures and historic districts were dismissed as an impact topic.

#### *Ethnography*

Ethnographic resources are defined by the NPS as any “...site, structure, object, landscape, or natural resource feature assigned traditional legendary, religious, subsistence, or other

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significance in the cultural system of a group traditionally associated with it.” (Director’s Order # 28, Cultural Resource Management Guideline, 181)

One ethnographic group associated with Piscataway Park are descendants of Americans Indians who still live in the region. While there are no federally-recognized Indian tribes in Maryland, there are now two Piscataway groups recognized by the State of Maryland. The strong connection and tie to Piscataway Park that many Piscataway descendants still have is evident by their gatherings and ceremonies that continue today and are conducted at various times of the year in the park. A particularly important site is a known ossuary (burial site) on the federally-owned part of Piscataway Park located along the Potomac River shore about a half a mile from the project site.

For many years, the Piscataway descendants and other ceremony participants crossed the privately-owned AFF property to access the sacred ancestral burial site on the public land below during events and visits. While the new Accokeek Marsh Boardwalk provides an alternative means of access via public lands to the sacred area, it is for foot traffic only and cannot support motor vehicle traffic, which the AFF route can. Therefore, access through the private AFF property, and the project site specifically, still makes access to the sacred burial area easier for the elderly and others attending programs and ceremonies there. Since access would not be affected during or after construction, this topic has been dismissed as an impact topic.

#### *Museum Collections*

Implementation of any alternative would have no effects upon museum collections (historic artifacts, natural specimens, and archival and manuscript material). Therefore, Museum Collections was dismissed as an impact topic.

#### *Socioeconomic Resources*

Socioeconomic characteristics that may be affected by the proposed action, such as population characteristics/demographics, local economic characteristics, housing characteristics, community services or facilities, and types of local businesses that operate in proximity to the site, are considered extremely minor or negligible. The students, teachers, and others that visit and utilize the site come from practically all social-economic groups and populations in the region. The subject site improvements would result in a direct benefit to all that visit and use the AFF Hard Bargain Farm Environment Center, but would not likely impact the local economy. As a result, this impact topic was not carried forward for further analysis in this EA.

#### *Park Operations and Management*

The proposed project would expand the educational themes and programs at the AFF Hard Bargain Farm Environment Center in ways consistent with NPS mission and park management objectives and would also improve the AFF ability to conduct those programs. These beneficial changes are not anticipated to have any change on NPS park operations and management. As a result of impacts to park operations and management, this topic was not carried forward for further analysis in this EA.



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## *Human Health and Safety*

Currently, all programs and activities at the AFF Hard Bargain Farm Environment Center are scheduled and supervised by site staff. Basic first aid resources are maintained on site, and most staff have been trained in first-aid and CPR, and can provide emergency assistance in the event of an accident. Because program activities in the proposed new facilities would be organized and supervised at the same or greater level of the current facility, there would be no noticeable changes in the overall safety of the facility. The current mold problem in the Wareham Lodge, and the conditions that promote it would be eliminated as issues in the proposed new overnight lodge. As a result, this impact topic was dismissed from further analysis in this EA.

## *Environmental Justice*

Presidential Executive Order 12898, *General Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, requires all federal agencies to incorporate environmental justice into their missions by identifying and addressing the disproportionately high and/or adverse human health or environmental effects of their programs and policies on minorities and low-income populations and communities. According to the U.S. Environmental Protection Agency, environmental justice is the "...fair treatment and meaningful involvement of all people, regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations and policies." Fair treatment means that no group of people, including a racial, ethnic, or socioeconomic group, should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local, and tribal programs and policies.

The goal of fair treatment is not to shift risks among populations, but to identify potentially disproportionately high and adverse effects and to identify alternatives that may mitigate these impacts. Prince George's County contains both minority and low-income populations. However, environmental justice is dismissed as an impact topic for the following reasons:

- The NPS actively solicited public participation as part of the planning process and gave equal consideration to all input from persons regardless of age, race, income status, or other socioeconomic or demographic factors.
- Implementation of the proposed alternative would not result in any identifiable adverse human health effects; therefore, there would be no direct or indirect adverse effects on any minority or low-income population.
- The impacts associated with implementation of the preferred alternative would not disproportionately affect any minority or low-income population or community.
- Implementation of the preferred alternative would not result in any identified effects that would be specific to any minority or low-income community.
- Any impacts to the socioeconomic environment resulting from implementation of the preferred alternative would be negligible. In addition, the NPS does not anticipate the impacts on the socioeconomic environment to appreciably alter the physical and social structure of the nearby communities.

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## **Chapter 2 - Alternatives**

### **2.1 Introduction**

NEPA requires that federal agencies explore a range of reasonable alternatives. The alternatives under consideration must include the “no action” alternative as prescribed by 40 CFR 1502.14. Project alternatives may originate from the proponent agency, local government officials, members of the public at public meetings, or during the early stages of project development. Alternatives may also be developed in response to comments from coordinating or cooperating agencies. The alternatives analyzed in this document, in accordance with NEPA, are the result of design scoping and internal scoping.

This chapter describes the options to improve AFF facilities. The following is a list of alternatives that potentially meet the purpose and need for the project. This EA explores two alternatives: the No Action Alternative (Alternative A), and an action alternative (Alternative B – Support New Development at AFF).

### **2.2 Alternative A – No Action Alternative**

The No Action Alternative serves as the baseline by which all other alternatives are compared. Under the No Action Alternative, there will be no new development at the AFF’s Hard Bargain Farm Environment Center beyond routine repairs and/or cyclic maintenance activities and/or upgrades.

The no action alternative assumes that visitor use for the AFF facilities currently found on the site would continue into the future. In Fiscal Year 2011 (October 2010 – September 2011), the visitor count included 3,719 students and 846 teachers and chaperones. AFF educated a total of 4,926 student-days during the fiscal year. Those students participated in the curriculum-based, multi-disciplinary, two-day (overnight) and one-day environmental education programs. In addition to students, several special events were held at Hard Bargain Farm Environment Center including: Oktoberfest (October, 2010), an annual public event; the dedication of the Living Shoreline Project (October, 2010); the 23<sup>rd</sup> annual Potomac River Watershed Cleanup (April, 2011); and the Spring Farm Festival (May, 2011), which is an open house featuring many hands-on children’s activities, craft vendors, a plant sale, and music.

### **2.3 Alternative B – Support New Development at AFF (NPS Preferred)**

Under Alternative B, NPS would support the proposed construction at the AFF. This construction would include building expansions, a couple of new, small facilities, and a boardwalk trail through the wetlands, which are described below.

The proposed wetland boardwalk would be in the same corridor as the previously existing trail. It traverses former livestock pastureland that has evolved into a biologically diverse wet meadow, and provides a wonderful environmental education/interpretive experience for visitors. AFF would like to reconnect the visitors with the resource. The proposed boardwalk is approximately 980 linear feet in length and would follow the alignment of an existing trail that is also used during interpretive programs. It includes a 6-foot wide bridge section that crosses

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Accokeek Creek (replaces the old bridge that is falling apart and parts of which currently still exist). The total square footage is approximately 6,660 square feet.

The Moss Lodge (11,523 square feet) would replace the old Wareham Lodge, located on a shady hillside. Its roof is designed to gather rain that would be purified to potable standards for use in both buildings. It would be a 16,000 square foot, three-story overnight lodge and classroom building with sleeping accommodations for 44, meeting rooms, teaching labs for environmental education, a commercial kitchen, a staff office, and both screened-in and open decks. There would also be two new cabins built close by, for students to be able to spend the night onsite. The cabins would each provide bunks and bathrooms to accommodate 22 children or adults. The day-use education center, called the Grass Building (6,200 square feet), would be built at the edge of a sunny field, its roof designed to maximize solar efficiency, able to collect enough solar energy to generate all of the power for both buildings. It would be a one-story, day use educational facility consisting of one large, dividable meeting/classroom space, a caterer's kitchen, bathroom facilities, and covered decks.

The surrounding land would be remodeled to capture and filter stormwater and use plant evapotranspiration and groundwater recharge to mimic the native hydrology of the place. Greywater from sinks and showers would be treated in constructed wetlands and also recharge the underground aquifer. The wetland cells would be between 1,000 and 1,500 square feet approximately, and infiltration would be achieved through a shallow drip irrigation system. The cells would be placed to avoid any zones of archeological significance. Composting toilets would eliminate the current discharge of nitrogen and phosphorous to the ground water. There would be eight separate composters, and they would be housed in the basements of the buildings. Native landscaping would replace grass and barren soil. Geothermal wells would be used to heat the buildings. A grid of wells (37 in total) would be drilled down into the ground, with water pumped down to the pipes and either heated up or cooled by the Earth's temperature. Living Buildings actively contribute to the health and vitality of the natural systems of which they are a part. Measurable qualities of Living Buildings include: regenerate natural systems; mimic native hydrology; net-zero energy consumers; no waste; and nontoxic.

Finally, there would be a proposed increase in the current parking. Existing parking needs to be expanded to meet with building occupancy codes. Along the entrance road, there are currently a couple small parking lots, as well as a main parking lot. The main lot would have a total of 15 parking spots, and there would be 13 parking spots along the entrance road.



[illegible]

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## 2.4 Alternative Considered but Dismissed

There were no additional alternatives considered for this project. The Potomac River Habitat Study (a precursor to the EA) looked at improving the current buildings, as well as the design of new facilities, and this became the only alternative to the No Action Alternative.

## 2.5 Mitigation Measures

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

The proposed development would go forward under the responsibility of the AFF and would not be managed by NPS. State of Maryland (Maryland Department of Environment) environmental standards would be applicable and would be followed.

To help ensure the protection of natural and cultural resources and the quality of the visitor experience, the following protective measures would be implemented as part of the action alternative. The AFF would implement an appropriate level of monitoring throughout any construction or demolition to help ensure that protective measures are being properly implemented and achieve their intended results.

The AFF has initiated a number of activities to address various concerns and requirements for their proposal. These include scoping, balloon tests coordinated with the Mount Vernon estate and Fort Washington to ensure that the proposed development would not intrude on the legislatively-protected historic viewsheds, and Phase I archaeological surveys in select project areas to make certain that no archaeological sites would be impacted by the proposed project.

The following mitigation measures have been developed to minimize the degree and/or severity of impacts to the resource, and would be adhered to during implementation of the preferred alternative:

### *Vegetation*

- Minimize cutting trees whenever possible.
- Clearly note vegetation clearing limits on construction documents and mark them in the field to minimize disturbance and alteration of vegetation and wildlife habitat.

### *Geology, Topography, and Soils*

- During the construction of the proposed facilities, soils would be exposed, creating an increased potential for erosion and/or transport of surface pollutants into Accokeek Creek and the Potomac River. An erosion and sediment control plan would be developed prior to construction, pursuant to the Maryland Department of Environment Erosion and



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Sediment Control Program. This plan would outline measures and protocols to be implemented during construction aimed at reducing erosion of exposed soils, slowing the rate at which water leaves the site, and capturing eroded soils and concentrated nutrients before entering the downstream water flow. In addition, due to the topography of the site and the distance to any stream, stormwater runoff on the site not captured by the stormwater conveyance system would flow through grassed and forested areas before entering any tributary, effectively capturing eroded soils and nutrients before entering the watershed. Due to the site's topography, proper implementation of these measures would reduce the potential for adversely impacting water quality, and the resultant adverse impacts to the water quality of Accokeek Creek and the Potomac River during the construction would be negligible and of short duration and occur only during storm events.

- During construction, protocols would also be developed to protect against potential groundwater contamination during construction, including implementing proper on-site refueling techniques, properly storing and handling of hazardous materials, and developing notification and containment procedures in the event of a spill. These protocols would also provide protection to the overall quality of surface waters and would help ensure that any spills that may occur are contained and cleaned up prior to entering any ground or surface waters via either overland flows or stormwater conveyance systems.

#### *Wetlands*

- Use of appropriate erosion and siltation controls during construction, including stabilization of all exposed soil or fill material at the earliest practicable date.
- Avoid use of heavy equipment in wetlands if at all possible.

#### *Archeology*

- Clear only those areas necessary for the newly proposed development. As appropriate, seed/plant with native vegetation to blend in with surroundings and Piscataway Park's natural and cultural landscape.
- If during construction, archeological resources are discovered, all work in the immediate vicinity of the discovery would be halted until the resources can be identified and documented and an appropriate mitigation strategy developed. If necessary, consultation with the Maryland Historic Preservation Officer, NPS, and/or the NPS Regional Archeologist will be coordinated to ensure that the protection of resources is addressed. In the unlikely event that human remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered during construction, provisions outlined in the Native American Graves Protection and Repatriation Act (25 USC 3001) of 1990 would be followed.

#### *Visitor Use and Experience*

- Conduct all construction activities (including hauling) during daylight hours, to avoid loud and disruptive work at night (and during non-rush hour times if possible, due to the narrow state of Bryan Point Road).

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- Avoid construction during peak visitor use periods (no work on weekends, holidays, and special AFF events) to avoid disruption for visitors.

## **2.6 Environmentally Preferable Alternative**

The NPS is required to identify the environmentally preferable alternative in its NEPA documents for public review and comment. The NPS, in accordance with the Department of the Interior policies contained in the Departmental Manual (516 DM 4.10) and the Council on Environmental Quality's (CEQ) *NEPA's Forty Most Asked Questions*, defines the environmentally preferable alternative (or alternatives) as the alternative that best promotes the national environmental policy expressed in NEPA (Section 101(b) (516 DM 4.10). In their *Forty Most Asked Questions*, CEQ further clarifies the identification of the environmentally preferable alternative, stating "Ordinarily, this means the alternative that causes the least damage to the biological and physical environment; it also means the alternative which best protects, preserves, and enhances historic, cultural, and natural resources" (Q6a).

After completing the environmental analysis, the NPS identified Alternative B (Support New Development at AFF) as the environmentally preferable alternative in this EA because it best meets the definition established by the CEQ. Alternative B does not conflict with the definition established by CEQ as defined above, and would not adversely impact the legislated purposes for Piscataway Park. NPS support of the proposal is also consistent with the mission and activities spelled out in its Cooperative Agreement with AFF. The environmental education and program messages and goals of AFF would be significantly improved and enhanced as a direct result of the program and activities described in this EA. Additionally, the sustainable, energy-efficient development proposed in this project would replace old, energy-inefficient facilities.



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## **Chapter 3 – Affected Environment and Environmental Consequences**

This chapter analyzes the potential environmental consequences, or impacts, that would occur as a result of implementing the proposed project. Topics analyzed in this chapter include vegetation; soils; wetlands; floodplains; archeology; and visitor use and experience.

All remaining impact topics were dismissed because the interdisciplinary team found that, after the completion of the environmental screening form, there would be no impacts to these topics (see Chapter 1).

### **3.1 Methodology for Assessing Impacts**

As required by NEPA, potential impacts are described in terms of type (beneficial or adverse), context (site-specific, local, or regional), duration, and level of intensity (negligible, minor, moderate, or major). Both indirect and direct impacts also are described; however, they may not be identified specifically as direct or indirect. These terms are defined below. Overall, these impact analyses and conclusions were based on the review of existing literature and studies, information provided by on-site experts and other government agencies, professional judgments, and park staff insight. The impact analyses presented in this document are intended to comply with both NEPA and Section 106 of the NHPA; therefore, Section 106 summaries for each cultural resource topic also are included.

The following definitions will be used in this EA to describe intensity and duration of impacts.

*Intensity.* Describes the degree, level, or strength of an impact. For this analysis, intensity has been categorized into negligible, minor, moderate, and major.

*Negligible.* Little or no impacts (not measurable).

*Minor.* Changes or disruptions may occur, but do not result in a substantial resource impact.

*Major.* Easily defined and measurable, resulting in a substantial resource impact.

*Adverse.* A change that moves the resource away from a desired condition or detracts from its appearance or condition.

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

*Direct.* An effect that is caused by an action and occurs in the same time and place.

*Indirect.* An effect that is caused by an action but is later in time or farther removed in distance, but is still reasonably foreseeable.

*Context.* Describes the area or location in which the impact would occur. Are the effects site-specific, local, regional, or even broader?

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*Duration.* Describes the length of time an effect would occur, either short-term or long-term:

- Short-term impacts generally last only during construction, and the resources resume their pre-construction conditions following construction.
- Long-term impacts last beyond the construction period, and the resources may not resume their pre-construction conditions for a longer period of time following construction.

*Cumulative Impacts.* The Council on Environmental Quality (CEQ) regulations, which implement the National Environmental Policy Act of 1969 (42 USC 4321 et seq.), require assessment of cumulative impacts in the decision-making process for federal projects. Cumulative impacts are defined as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions" (40 CFR 1508.7). Cumulative impacts are considered for both the No Action and action alternatives. In July, of 2009, the park completed the *Resource Protection and Visitor Accommodation Projects National Capital Parks–East (Piscataway Park) Environmental Assessment*. The actions addressed in that document included the stabilization ("Living Shoreline") of an actively eroding section of the Potomac River shoreline; repairs to the Accokeek Marsh Boardwalk; trail improvements on the Accokeek Creek Trail; construction of a canoe launch; and the installation of interpretive waysides.

The "Living Shoreline," completed in 2010, was an innovative approach to shoreline armoring that stabilized nearly 2,800 linear feet of river bank by placement of several off-shore rip-rap sills. The work required practically no excavation, and the removal of a very small number of trees (the active erosion had already caused the loss of tree cover, therefore the need). Major repairs and enhancements were also made to the 1,100 linear foot-long Accokeek Marsh Boardwalk. It was completed in 2010, and utilized the alignment of the initial boardwalk, thereby significantly reducing new impacts to Accokeek Marsh and to that section of Potomac River shore.

While the above actions involved short term temporary impacts to the environment and to park operations during construction and repair activities, they posed no long term impact to park operations and management and constitute minor adverse impacts.

The other actions addressed in the *Resource Protection and Visitor Accommodation Projects National Capital Parks–East (Piscataway Park) Environmental Assessment*, such as the Accokeek Trail improvements, the canoe launch, and the interpretive waysides, have not been completed yet. However, all are minor actions that do not require tree removal and only minimal excavation ("post-hole digging"), and only minor cumulative adverse impacts to long-term NPS operations and maintenance would occur.

### **3.2 Vegetation**

#### *Affected Environment*

The land cover of this project is predominated by woodlands and pasture. In the meadows, where the Grass Building would be located, non-native grasses such as meadow fescue (*Festuca*

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*elator*), orchardgrass (*Dactylis glomerata*), and sweet vernalgrass (*Anthoxanthum odoratum*) generally dominate the habitat.

The area around the proposed Moss Building, two cabins, and parking lots would be located are in wooded areas. This area is Oak-Pine Forest, dominated by the presence of pines (*Pinus spp.*), mixed with oaks (*Quercus spp.*) and hickories (*Carya spp.*).

The proposed boardwalk area is located near Accokeek Creek. This creek descends from the ravine forests of its upper reaches to the tidal marsh, which is dominated by calamus (*Acorus calamus*). Also common in the area are narrowleaf cattail (*Typha angustifolia*), rice cutgrass (*Leersia oryzoides*), jewelweed (*Impatiens capensis*), halberdleaf tearthumb (*Polygonum arifolium*), and river bulrush (*Schoenoplectus fluviatilis*). Along the banks of Accokeek Creek, species likely to occur are blisterwort (*Ranunculus recurvatus*), Claytonia caroliniana (*Carolina springbeauty*), dogtooth violet (*Erythronium americanum*), Field Horsetail (*Equisetum arvense*), scouring rush (*Equisetum hyemale*), Shining Club Moss (*Lycopodium lucidulum*), drooping sedge (*Carex prasina*), bent sedge (*Carex styloflexa*), and wild hydrangea (*Hydrangea arborescens*).

### *Environmental Consequences*

#### **Methodology**

Available information on plants and vegetative communities potentially impacted in the study area was compiled for this document. Predictions about short- and long-term site impacts were based on recent studies and previous projects with similar vegetation. The thresholds of change for the intensity of an impact are defined as follows:

*Negligible.* No vegetation would be affected, or some individual plants could be affected as a result of the alternative, but there would be no impact to native species populations. The impacts would be on a small scale.

*Minor.* The alternative would affect some individual plants and also would affect a relatively small portion of that species' population. Mitigation to offset adverse impacts could be required and would likely be successful.

*Moderate.* The alternative would affect some individual plants and would also affect a sizeable segment of the species' population over a relatively large area. Mitigation to offset adverse impacts could be extensive but would likely be successful.

*Major.* The alternative would have a considerable impact on plant populations and affect a relatively large area in and out of the park. Mitigation measures to offset the adverse impacts would be required and extensive, and success of the mitigation measures would not be guaranteed.

*Duration* – Short-term impacts would last less than one year; long-term impacts would occur longer than one year.

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## **Impacts of Alternative A**

### *Impact Analysis*

Under Alternative A, there would be no changes made to the existing condition of the vegetative communities at the site. The trees will continue to be maintained through regular landscaping activities. As a result, there would be no adverse or beneficial impacts to vegetation under Alternative A.

### *Cumulative Impacts*

Because there would be no impacts to vegetation as a result of the no action alternative, there would be no adverse or beneficial cumulative impacts to vegetation under Alternative A.

### *Conclusion*

Alternative A would result in no direct, indirect, or cumulative adverse or beneficial impacts to vegetation.

## **Impacts of Alternative B**

### *Impact Analysis*

Overall, the project site and plans require that little vegetation be disturbed (21 trees would be removed). The project element with most impact to vegetation is the marsh boardwalk where the pilings would displace vegetation that likely would otherwise occupy the piling ‘footprints.’ Additionally, shade created by the boardwalk may impact certain wetland or floodplain vegetation. Moreover, while boardwalk construction techniques are intended to minimize wetland impacts, the construction activity is a disturbance and would have impacts. Those impacts, however, are anticipated to be minor and mostly short term to wetland and floodplain vegetation. The diverse plant community along the proposed boardwalk alignment would quickly adjust to the longer term change in site condition caused by the shading created by the new boardwalk.

Other proposed development is within the footprint of existing structures and/or in open, grassy areas. The NPS determined that the proposed actions would not adversely impact the wooded appearance of the area.

The dead and decaying trees would be removed, while the healthy tree loss would be kept to a minimum. Vegetation would be trimmed back in the new parking areas (with invasives being completely removed). The trees that would be lost around the buildings is listed below:

- 1 Paulownia (13” DBH)
- 1 Paulownia (12” DBH)
- 1 Paulownia (11” DBH)
- 1 Paulownia (13” DBH)
- 1 Paulownia (12” DBH)

- 
- 1 Red Oak (6" DBH)
  - 1 Tulip Poplar (6" DBH)
  - 1 Ornamental Cherry (15" DBH)
  - 1 Flowering Dogwood (8" DBH)
  - 1 American Holly (10" DBH)
  - 1 American Holly (12" DBH)
  - 1 Pin Oak (24" DBH)
  - 1 Sycamore (24" DBH)
  - 1 Hickory (13" DBH)
  - 1 Sassafras (9" DBH)
  - 1 Sassafras (15" DBH)
  - 1 Sweet Gum (6" DBH)
  - 1 Sweet Gum (12" DBH)
  - 1 Sweet Gum (9" DBH)
  - 1 Sweet Gum (9" DBH)
  - 1 Sweet Gum (11" DBH)

Due to the loss of trees, 79 new trees will be replanted. Overall, with the loss of up to 21 trees and the replantings, the adverse impacts associated with this alternative would be minor and of long duration.

#### *Cumulative Impacts*

The "Living Shoreline" project resulting in short-term minor adverse impacts to vegetation due to construction impacts, and long-term beneficial impacts as a result of the intended shoreline stabilization, these impacts when added to the overall impacts of Alternative B, would result in long-term negligible to minor adverse cumulative impacts to vegetation.

#### *Conclusion*

Alternative B would include the removal of no more than 21 total trees within the project area. Construction activities and staging could include limited compaction and trampling of vegetation. Therefore, Alternative B would result in short-term, minor, adverse impacts, and long-term, minor, adverse impacts as a result of a loss of vegetation. There would also be long-term negligible to minor adverse cumulative impacts to vegetation.

### **3.3 Soils**

#### *Affected Environment*

Piscataway Park is located in the Upper Coastal Plain physiographic region of Maryland. Overall, the Maryland Coastal Plain is characterized by layers of sediments distinguishable by their similar components, age, and origins that correspond to the intervals when the land was alternately flooded, then exposed, during the past 65 million years. Piscataway Park is situated predominantly within the Potomac River Lowland and the Piscataway Creek Floodplain and Terraces. These level to gently sloping landscapes ranging up to 50 feet above the mean high tide line. To the east of the Potomac River Lowlands near the Marshall Hall area is the west-

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facing slope of the Potomac River Escarpment. These Tertiary Slope lands rise up to 150 feet above the mean high tide line and extend up to the Southern Maryland Upland near 200 feet in elevation (Steury 2003). The original surficial geology for much of Piscataway Park is of Pliocene age, and comprised of Terrace Deposits that are composed of interbedded sand, clayey sand, and pebbly sand with minor deposits of gravel and silt-clay, and vary in thickness from three feet to 30 feet (Glaser, 1978).

The chief soil association occurring in the study site is the Sassafras-Groom Association (Kirby et al. 1967). These soils tend to be better drained because of their high sand and gravel content (Steury 2003).

The soils in the area of the Grass Building are heavily compacted from years of parking cars in the fields. The soils in the area of the cabins are relatively undisturbed forest floor. Finally, the soils in the area of the Moss Building are heavily compacted or covered with existing impervious surfaces.

The geographic study area for soils is contained within the boundaries of Piscataway Park, in areas previously, and recently used for agricultural purposes. It is expected that construction activities would not occur outside this area.

#### *Environmental Consequences*

#### **Methodology**

Potential impacts to soils are assessed based on the extent of disturbance to natural undisturbed soils, the potential for soil erosion resulting from disturbance, and limitations associated with the soils. Analysis of possible impacts to soil resources was based on on-site inspection of the resources within Piscataway Park, review of existing literature and maps, and information provided by the NPS and other agencies. The following thresholds were used to determine the magnitude of impacts on soils:

*Negligible* – Soils would not be impacted or the impact to soils would be below or at the lower levels of detection. Any impacts to soils would be slight.

*Minor* – Impacts to soils would be detectable. Impacts to undisturbed soil area would be small. Mitigation would be needed to offset adverse impacts, would be relatively simple to implement and would likely be successful.

*Moderate* – Impacts to soils would be readily apparent and result in a change to the soil character over a relatively wide area. Mitigation measures would be necessary to offset adverse impacts and would likely be successful.

*Major* – Impacts to soils would be readily apparent and substantially change the character of the soils over a large area both in and out of Piscataway Park. Mitigation measures necessary to offset adverse impacts would be needed, extensive, and their success would not be guaranteed.

*Duration* – Short-term impacts occur during all or part of alternative implementation; long-term impacts extend beyond implementation of the alternative.

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## **Impacts of Alternative A**

### *Impact Analysis*

Under Alternative A, there would be no changes made to the existing condition of soils at the site. Implementation of the no action alternative would result in long-term minor adverse impacts to soils due to continued compaction of soils occurring in the existing recreational fields, from visiting school groups and occasionally having to park cars on the grass.

### *Cumulative Impacts*

Impacts to soils are site-specific and are not affected by cumulative development outside the study area. Cumulative impacts would only occur if development immediately within or adjacent to the site directly or indirectly affected the soils of the site. There are no past, present, or reasonably future actions that would result in impacts to the soils within the project area. As a result, implementation of the no action alternative would result in no beneficial or adverse cumulative impact to the existing soils of the area.

### *Conclusion*

Alternative A would result in long-term minor adverse impacts to soils. There would be no impairment of these resources under this alternative.

## **Impacts of Alternative B**

### *Impact Analysis*

Implementation of any of the options presented under alternative 2 would result in short-term and long-term negligible to minor adverse impacts to soils from the increased potential for erosion, compaction, loss of productivity, and disturbance of soils resulting from construction and recreational activities. There would be an increase in approximately 16,000 square feet of impervious surface, which is permanent and will contribute to additional runoff and erosion. Sassafras-Groom Association, the main soil in the area, has high sand and gravel content (therefore high water-draining properties) and will help absorb some stormwater generated from the addition of the new impervious surfaces. In addition, the project area would include additional stormwater mitigations (greywater sinks, grid of wells, etc) to capture and filter the additional stormwater water and help mitigate this loss.

### *Cumulative Impacts*

Impacts to soils are site-specific and are not affected by cumulative development outside the study area. Cumulative impacts would only occur if development immediately within or adjacent to the site directly or indirectly affected the soils of the site. The “Living Shoreline” was designed to stop erosion along the shoreline, but that will not impact this site. Any recent projects that may have occurred in the area of the AFF would not represent actions that would result in any impacts to soils within the project site. There are no past, present, or reasonably future actions that would result in impacts to the soils within the project area. As a result,

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implementation of this alternative would result in no beneficial or adverse cumulative impact to the existing soils of the area.

### *Conclusion*

In conclusion, Alternative B would result in the increased potential for erosion, compaction, loss of productivity, and disturbance of soils. Therefore, this alternative would result in both short-term and long-term negligible to minor adverse impacts to soils resulting from this project.

## **3.4 Wetlands**

### *Affected Environment*

Wetlands include areas inundated or saturated by surface or groundwater for a sufficient length of time during the growing season to develop and support characteristic soils and vegetation. The NPS classifies wetlands based on the FWS *Classification of Wetlands and Deepwater Habitats of the United States*, also known as the Cowardin classification system (Cowardin et al. 1979). Based on this classification system, a wetland must have one or more of the following attributes:

- The habitat at least periodically supports predominately hydrophytic vegetation (wetland vegetation);
- The substrate is predominately undrained hydric soil; or
- The substrate is non-soil and saturated with water, or covered by shallow water at some time during the growing season.

The former pasture along Bryan Point Road and adjacent to Accokeek Creek has been flooded since abandonment in the 1990's as beaver activity in the area increased. There used to be a trail through the pasture, but has since been covered with water when it flooded (except for the remains of an old bridge which still exists). The area has since developed into a biologically diverse wetland (has not been delineated) and the wet-meadow has become an important part of the environmental education programs at the AFF. A boardwalk is proposed to be constructed over top of the old trail alignment that currently traverses the wetland. The boardwalk would be ADA Accessible and cross Accokeek Creek (within the footprint of the old trail).

### *Environmental Consequences*

## **Methodology**

The impact analysis and the conclusions for possible impacts on wetlands were based on review of existing literature and studies and information provided by park staff and other agencies. The following thresholds were used to determine the magnitude of impacts on wetlands:

*Negligible:* A barely measurable or perceptible change in wetland size, integrity, or continuity could occur.

*Minor:* The impact would be easily measurable or perceptible. A small change in size, integrity, or continuity could occur due to effects such as construction-related runoff. However, the overall viability of the resource would not be affected.



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*Moderate:* The impact would be sufficient to cause a measurable change in the size, integrity, or continuity of the wetland or would result in a small but permanent loss or gain in wetland acreage.

*Major:* The action would result in a measurable change in all three parameters (size, integrity, and continuity) or a permanent loss of large wetland areas. The impact would be substantial and highly noticeable.

*Duration* – Short-term impacts would take less than 3 years to recover; long-term impacts would take more than 3 years to recover.

## **Impacts of Alternative A**

### *Impact Analysis*

Under Alternative A, there would be no changes made to the existing condition of the wetlands at the site. Since the trail is mostly flooded and the bridge is in disrepair, students who currently explore that area cannot venture too far into the wetlands. As a result, there would be no adverse or beneficial impacts to wetlands under Alternative A.

### *Cumulative Impacts*

There are no present or proposed future actions that would act cumulatively to impact wetland habitats under Alternative A. These wetlands are not located in a topographic location where current and future developments will cumulatively impact their functions. As a result there would be no adverse or beneficial cumulative impacts to wetland habitats under Alternative A.

### *Conclusion*

Alternative A would result in no direct, indirect, or cumulative adverse or beneficial impacts to wetlands. The area would continue to remain flooded as long as the beavers remain in the area.

## **Impacts of Alternative B**

### *Impact Analysis*

The boardwalk would be designed and constructed to minimize disturbance to the wetland. The boardwalk would also offset ongoing wetland impacts by replacing the existing wetland trail. However, the boardwalk would have impacts. The boardwalk would be supported on pilings, driven into the wetland substrate until refusal. In addition to the area taken by boardwalk pilings, the boardwalk structure and deck itself would create some shading that may have some impact on certain wetland vegetation growing along its alignment. To reduce the impact of boardwalk construction activities on the wetland, a ‘Top Down’ construction technique would be used. This construction approach requires only ‘foot work’ in the wetland—no construction equipment. Work people on foot using carried-in augers perform the drilling for the boardwalk pilings. Other mechanical equipment used during construction activities would work from completed sections of the boardwalk, working forward as boardwalk sections are completed. This would

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result in short-term negligible to minor adverse impacts and long-term negligible adverse impacts to the wetlands.

The proposed 3,457 square foot Grass Building site would be located approximately 100 feet away from the only delineated wetland in the vicinity of the project area. It is far enough away from the proposed construction that it would not be impacted by the proposed project.

#### *Cumulative Impacts*

There are no present or proposed future actions that would act cumulatively to impact wetland habitats under the preferred action alternative. These wetlands are not located in a topographic location where current and future developments will cumulatively impact their functions. As a result there would be no cumulative impact to wetlands under Alternative B.

#### *Conclusion*

In conclusion, Alternative B would result in short-term negligible to minor adverse impacts and long-term negligible adverse impacts to the wetlands.

### **3.5 Floodplains**

#### *Affected Environment*

The Chesapeake Bay Critical Area boundary runs along the edge of the project site, and is nearly at the proposed future 10,000 square foot sewage easement area. Most of the proposed wetland boardwalk falls within the Accokeek Creek floodplain and it is the floodplain as well as the Chesapeake Bay Critical Area (CBCA). However, looking at the FIRM maps, the project site is located outside of the 100-year and 500-year floodplain.

#### *Environmental Consequences*

#### **Methodology**

For the purposes of analyzing potential impacts on floodplains, the thresholds of change for the intensity of an impact are defined as follows:

*Negligible.* No change in an existing floodplain or the ability of a floodplain to convey flood waters would occur. Floodplains would not be affected or effects would be below or at the lower levels of detection. Any detectable effects would be considered slight, local, and would likely be short-term.

*Minor.* No changes to floodplain function would occur. Effects on floodplains would be detectable and relatively small in terms of area and the nature of the change, and would likely be short-term.

*Moderate.* Changes to floodplain function would occur, but the impact could be mitigated by the modification of proposed facilities in floodplains. The alternative would result in effects on floodplains that would be readily apparent.

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*Major.* Changes on floodplain functions would be dramatic and permanent, and could not be certainly mitigated. Effects on floodplains would be observable over a relatively large area (i.e., regional scale), and long-term. The character of the floodplain would be changed so that the functions typically provided by the floodplain would be substantially changed.

*Duration* – Short-term impacts occur during all or part of alternative implementation; long-term impacts extend beyond implementation of the alternative.

## **Impacts of Alternative A**

### *Impact Analysis*

Under Alternative A, there would be no changes made to the existing condition of the floodplains. As a result, there would be no adverse or beneficial impacts to floodplains under Alternative A.

### *Cumulative Impacts*

There are no present or proposed future actions that would act cumulatively to impact floodplains under Alternative A. As a result there would be no adverse or beneficial cumulative impacts to floodplains under Alternative A.

### *Conclusion*

Alternative A would result in no direct, indirect, or cumulative adverse or beneficial impacts to floodplains.

## **Impacts of Alternative B**

### *Impact Analysis*

The design and minimal footprint of the wetland boardwalk is not expected to have an impact on the floodplain and area hydrology, and will not change the way floodwaters are conveyed. This would result in no adverse or beneficial impacts on the floodplains.

The proposed deck of the Grass Building is also located approximately 50 feet from the CBCA, and would not impact the floodplain. Therefore, there would be no adverse or beneficial impacts to the floodplains.

### *Cumulative Impacts*

There are no present or proposed future actions that would act cumulatively to impact floodplains under the preferred action alternative. As a result there would be no cumulative impact to floodplains under Alternative B.

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## *Conclusion*

In conclusion, Alternative B would result no adverse or beneficial impacts to the floodplain of Accokeek Creek (a small creek that runs through the site).

## **3.6 Archeology**

### *Affected Environment*

Within the boundaries of Piscataway Park is “one of the densest locales of prehistoric and historic American Indian archeological sites in the Middle Atlantic seaboard province.” (Potter, *A Historical Outline of Archeology in Piscataway Park*) Presently, there are 56 archeological sites recorded for Piscataway Park in the NPS Archeological Sites Management Information System (ASMIS). These prehistoric and historic sites range in age from approximately 8,000 BC to the end of the nineteenth century A.D.

As archeological resources exist essentially in subsurface contexts, potential impacts on archeological resources are assessed according to the extent to which the proposed alternatives would involve ground-disturbing activities such as excavation or grading. The analysis of possible impacts on archeological resources was based on a review of previous archeological studies, consideration of the proposed design concepts, and other information provided by the NPS.

### *Environmental Consequences*

## **Methodology**

Impacts on archeological resources occur when the proposed alternative results in complete or partial destruction of the resource, which is termed a loss of integrity in the context of Section 106. Impact thresholds for archeological resources consider both the extent to which the proposed alternative results in a loss of integrity and the degree to which these losses can be compensated by mitigating activities, such as preservation or archeological data recovery. The process begins with assessment of a resource according to its eligibility for the NRHP, as only sites considered significant enough for listing on the NRHP are protected by federal regulations.

Under federal guidelines, resources are eligible for the NRHP if they possess integrity and if they meet one or more of the criteria of eligibility for inclusion in the NRHP. Most archeological resources found eligible for the NRHP are significant under criterion D because they have the potential to provide important information about the history or prehistory. However, in some circumstances, archeological resources might be found significant because (i) they are associated with events that have made a significant contribution to the broad patterns of our history (NRHP criterion A), (ii) they are associated with the lives of persons significant in our past (NRHP criterion B), or (iii) they exhibit the distinctive characteristics of a type, period, or method of construction (NRHP criterion C).

For purposes of analyzing impacts on archeological resources, thresholds for the intensity of an impact are based on the foreseeable loss of integrity. All of these discussions consider only the direct impacts of construction, because operation of the facilities should have no ground-disturbing activities and no additional effect on archeological resources under any of the alternatives under

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consideration. All impacts are considered long term (e.g., lasting longer than the period of construction).

*Negligible:* Impact is at the lowest levels of detection with neither adverse nor beneficial consequences. The determination of effect for Section 106 would be *no adverse effect*.

*Minor:* Disturbance of a site(s) results in little, if any, loss of integrity. For purposes of Section 106, the determination of effect would be *no adverse effect*.

*Moderate:* Disturbance of a site(s) results in loss of integrity to the extent that there is a partial loss of the character-defining features and information potential that form the basis of the site's NRHP eligibility. Mitigation is accomplished by a combination of archeological data recovery and in place preservation. The determination of effect for Section 106 would be *adverse effect*.

*Major:* Disturbance of a site(s) results in loss of integrity to the extent that it is no longer eligible for the NRHP. Its character-defining features and information potential are lost to the extent that archeological data recovery is the primary form of mitigation. The determination of effect for Section 106 would be *adverse effect*.

*Beneficial:* A beneficial impact would occur when actions were taken to actively preserve or stabilize a site in its preexisting condition, or when it would be preserved in accordance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties* to accurately depict its form, features, and character as it appeared during its period of significance. For purposes of Section 106, the determination of effect would be *no adverse effect*.

*Duration:* All impacts on archeological resources are considered long term.

## **Impacts of Alternative A**

### *Impact Analysis*

Under Alternative A, there would be no ground disturbance, therefore no impacts to archeological resources. As a result, there would be no adverse or beneficial impacts to archeology under Alternative A.

### *Cumulative Impacts*

Because the implementation of Alternative A would result in no adverse or beneficial impacts to archeology, there would also be no adverse or beneficial cumulative impacts to archeology.

### *Conclusion*

Alternative A would result in no direct, indirect, or cumulative adverse or beneficial impacts to archeology.

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## Impacts of Alternative B

### *Impact Analysis*

A Phase I archeological survey was conducted in October 2008 by Applied Archeology and History Associates of the Proposed Potomac River Habitat Study Complex at the Hard Bargain Farm Environmental Center Property (Tyler et al. 2009). Two prehistoric archeological sites were identified: The Hard Bargain Farm Center Site (18PR962, located in the northeastern portion of the field) and the Hard Bargain Farm Footpath Site (18PR963, located in the northeastern portion of the currently flooded pasture). The western portion of site 18PR962 was identified as an area of archeological sensitivity, as well as all of 18PR963. As such, these areas “would require further testing before any Earth disturbance or construction.”

Due to the minor ground disturbance, there may be long-term minor adverse impacts to archeology. However, 1937 and 1940 aerial photographs show a tobacco barn within 200 feet of the westernmost project area. They also show recent re-growth of forest, which occurred upon abandonment of tobacco farming on this section of Hard Bargain Farm. Nearly all acreage, save wetlands, has been in plowed cultivation for over two centuries. Given the relatively small amount of ground disturbance that would be required for construction, the proposed action is viewed as having no adverse effect to archeological resources.

### *Cumulative Impacts*

There are no present or future projects that have the potential to change or alter the archeology associated with AFF at the site; as a result, there are no adverse or beneficial cumulative impacts to vegetation under this alternative. There would be a beneficial impact to archeological resources, resulting from the shoreline stabilization program. The “Living Shoreline” has significantly slowed down the erosion process, therefore protecting artifacts near the Potomac River.

### *Conclusion*

In conclusion, under Alternative B, it is generally assumed that any impacts on archeological resources would be direct, long term and minor. For purposes of Section 106, it is assumed that impacts would be *no adverse effect*, given the relatively small amount of ground disturbance that would be required for construction of the boardwalk, new buildings, and the staging area. To mitigate potential adverse impacts on archeological resources, the NPS would develop appropriate mitigation measures in future Section 106 consultation between the SHPO, AFF, and the NPS. Most likely, these mitigation measures would include a geoarcheological investigation that might be followed by an archeological inventory and evaluation study, followed by appropriate documentation for any NRHP-eligible resources that could not be avoided during construction.

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### 3.7 Visitor Use and Experience

#### *Affected Environment*

The Overnight Lodge and the other program support facilities at the Hard Bargain Farm Environment Center are over 30 years old and in poor condition. Overnight and educational programs are focused at the Wareham Lodge where there are serious moisture problems and subsequent mold issues. Currently, space is limited and is insufficient to meet the demand for programs, classrooms, student, teacher and other visitor accommodations, as well as storage. The former pasture area's use for environmental education programs cannot occur (as conditions currently exist) during wet conditions.

#### *Environmental Consequences*

#### **Methodology**

The purpose of this impact analysis is to assess the effects of the alternatives on visitor use and experience at AFF Hard Bargain Farm Environment Center. To determine impacts, the current uses at the park were considered and the potential effects of the construction on visitor experience and use were analyzed. Activities and the type of visitor experience and use/visitation that occur in AFF and that might be affected by the proposed actions, as well as noise experienced by visitors, were considered.

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

*Minor:* Changes in visitor use and/or experience would be slight and detectable, but would not appreciably limit or enhance critical characteristics of the visitor experience. Visitor satisfaction would remain stable. If mitigation were needed, it would be relatively simple and would likely be successful.

*Moderate:* A few critical characteristics of the desired visitor experience would change and/or the number of participants engaging in a specified activity would be altered. Some visitors who desire their continued use and enjoyment of the activity/visitor experience might pursue their choices in other available local or regional areas. Visitor satisfaction would begin to decline. Mitigation measures would probably be necessary and would likely be successful.

*Major:* Multiple critical characteristics of the desired visitor experience would change and/or the number of participants engaging in an activity would be greatly reduced or increased. Visitors who desire their continued use and enjoyment of the activity/visitor experience would be required to pursue their choices in other available local or regional areas. Visitor satisfaction would markedly decline. Extensive mitigation measures would be needed, and success would not be guaranteed.

*Duration:* Short-term impacts would be immediate, occurring during implementation of the alternative. Long-term impacts would persist after implementation of the alternative.

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## **Impacts of Alternative A**

### *Impact Analysis*

Implementation of Alternative A, no action, would result in long-term minor adverse impacts to visitor use and experience from the lack of facilities, amenities, and opportunities for recreational programs, including children and adults participating in AFF programs (especially for those individuals participating in overnight programs).

### *Cumulative Impacts*

Under the implementation of Alternative A, long-term minor adverse cumulative impacts would occur under the no action alternative. Under past projects, visitors would be able to enjoy the new 1,100-foot Accokeek Marsh Boardwalk. However, once the visitor enters the AFF, they would be subjected to the park's current condition. As a result, the impacts of the Piscataway EA, when combined with the impacts that would occur under the no action alternative, would result in long-term minor adverse cumulative impacts to visitor use and experience.

### *Conclusion*

In conclusion, due to the current deteriorating conditions at the current AFF Hard Bargain Farm facilities, Alternative A would result in direct, long-term adverse cumulative impacts to visitor use and experience.

## **Impacts of Alternative B**

### *Impact Analysis*

Implementation of Alternative B may result in some short-term moderate adverse impacts to visitor use and experience during the construction of the new structure and associated facilities, as students would not be able to use the facilities.

After construction however, implementation of Alternative B would result in long-term beneficial impacts to the local community and economy as recreational facilities would be improved and expanded. The increased availability of organized recreational opportunities may lead to a decrease in juvenile crime in the area. In addition, the local economy may benefit with the potential increase in local property values and the small increase in local employment. The improved and expanded facilities may also have long-term beneficial cumulative impacts on the crime rate, employment, and housing values of the surrounding communities.

The boardwalk proposed as part of this project would allow environmental education programs to be conducted during those wet conditions, thereby, improving visitor use and experience and adding a long-term beneficial impact to visitor use experience.

One concern voiced by several residents is expansion of a business in a residential area whose infrastructure cannot accommodate. Bryan Point Road, in its present condition, could not handle increased traffic growth that would accompany the expansion. The present road is in poor condition and undersized for the existing traffic that the area brings in. This would present short-



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term minor adverse impacts to the local residents as there would be an increase in construction equipment. However, AFF has indicated that they don't anticipate a large increase in the number of students served (but rather an increase in the quality of their experience).

### *Cumulative Impacts*

Improvements to the park, such as the Accokeek Trail Boardwalk, and the proposed canoe launch and interpretive waysides, are all minor actions that would have beneficial cumulative impacts to the visitor use and experience. These impacts, when combined with the short-term negligible to moderate adverse impacts and long-term beneficial impacts that would occur under this alternative would result in long-term beneficial cumulative impacts to visitor use and experience.

### *Conclusion*

Implementation of Alternative B would result in short-term minor adverse impacts on visitor use and experience as a result of construction activities. In addition, Alternative B would have long-term, primarily beneficial impacts on visitor use and experience from improved visitor access and facilities.

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## **Chapter 4 – Coordination and Consultation**

### **Hard Bargain Farm Environment Center, Accokeek, Maryland, (Draft) Land Use Planning**

The AFF hired a consulting team from Rhodeside & Harwell, Inc. to help look at the overall operations of the Hard Bargain Farm Environment Center, including meeting its educational and environmental mission in the 21<sup>st</sup> century. In April 2005, Rhodeside & Harwell, Inc. developed a draft land use plan that looked at the entire site as well as its context in Piscataway Park. The plan was comprehensive and addressed site history and context, features, land use needs and priorities, management strategies, and capital improvements. In brief, the plan recognized the need to maintain the Hard Bargain Farm, its interesting history and unique surroundings, and provided important guidance for the site's future use and development.

### **Scoping**

Coordination with state and federal agencies was conducted during the NEPA process to identify issues and/or concerns related to natural, cultural, and archaeological resources within the proposed project area.

All consultations with the State Historic Preservation Officer, as mandated in Section 106 of the National Historic Preservation Act of 1966, are occurring as part from the development of this EA. On February 20, 2009, the NPS sent a letter to the Maryland Historic Trust to officially initiate consultation pursuant to Section 106 National Historic Preservation Act with that office. This EA will be forwarded to the State Historic Preservation Officer as part of the consultation process.

On April 21, 2009, the NPS received a letter from the Mount Vernon Ladies Association stating that following their participation in the balloon test of January, 2007 that the proposed new development at the AFF would not be visible from Mount Vernon, and posed no threat on the historic views from across the Potomac River.

In accordance with Section 7 of the Endangered Species Act of 1973, the NPS sent letters (February 17, 2009) to the U.S. Fish & Wildlife Service (USFWS) and to the Maryland Department of Natural Resources Wildlife & Heritage Service (MDDNR) to solicit their comments regarding potential occurrences of federal and state-listed species within the project area. The USFWS responded on February 25, 2009 stating that except for occasional transient individuals, no known federally proposed or listed endangered or threatened species occur in the project area.

The MD-DNR responded on April 20, 2009 with a list of five state-listed plant, and one invertebrate (dragonfly) species known to occur in the area (See Appendix) stating the potential for them to occur at the project site. However, the habitat conditions of the project site would only be potentially associated with one of the six species identified. The project area will be inspected to insure none of the plants would be impacted by the proposed development.

### **Public review**

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The Environmental Assessment will be released for public review in May, 2012. To inform the public of the availability of the Environmental Assessment, the NPS will send letters to various agencies and neighbors, and publish an electric copy online. Copies of the EA will be available to the public at local libraries

The Environmental Assessment is subject to a 30-day public comment period. During this time, the public is encouraged to submit their written comments to the NPS. Following the close of the comment period, all public comments will be reviewed and analyzed, prior to the release of a decision document. The National Park Service will issue responses to substantive comments received during the public comment period, and will make appropriate changes to the Environmental Assessment, as needed.

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## **List of Preparers**

### **National Park Service – National Capital Parks-East**

Stephen Syphax, Chief, Resource Management Division  
Robert Mocko, Environmental Protection Specialist

### **National Park Service – National Capital Region**

Joel Gorder, Environmental Specialist

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## **Glossary of Acronyms and Terms**

AFF Alice Ferguson Foundation  
BMPs Best Management Practices  
CEQ Council on Environmental Quality  
CFR Code of Federal Regulations  
EA Environmental Assessment  
EV Exceptional Value  
FONSI Finding of No Significant Impact  
FTA Federal Transit Administration  
HQGCWF High Quality Cold Water Fishery  
MDDNR Maryland Department of Natural Resources  
NAGPRA Native American Graves Protection and Repatriation Act  
NEPA National Environmental Policy Act  
NHPA National Historic Preservation Act  
NPS National Park Service  
Pub. L. Public Law  
U.S. EPA U.S. Environmental Protection Agency  
USC United States Code  
USFWS U.S. Fish and Wildlife Service

**Affected Environment** — The existing environment to be affected by a proposed action and alternatives.

**Best Management Practices** — Methods that have been determined to be the most effective, practical means of preventing or reducing pollution or other adverse environmental impacts.

**Contributing Resource** — A building, site, structure, or object that adds to the historic significance of a property or district.

**Council on Environmental Quality (CEQ)** — Established by Congress within the Executive Office of the President with passage of the *National Environmental Policy Act of 1969*. CEQ coordinates federal environmental efforts and works closely with agencies and other White House offices in the development of environmental policies and initiatives.

**Cultural Resources** — Historic districts, sites, buildings, objects, or any other physical evidence of human activity considered important to a culture, subculture, or community for scientific, traditional, religious or any other reason.

**Cumulative Impacts** — Under NEPA regulations, the incremental environmental impact or effect of an action together with the effects of past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions (40 CFR 1508.7).

**Deciduous** — Describing trees species that have leaves that fall off every season.

**Emergency Services** — Public services that respond to emergency situations including police, fire, rescue, and EMS.

**Enabling Legislation** — National Park Service legislation setting forth the legal parameters by which each park may operate.

**Endangered Species** — "...any species (including subspecies or qualifying distinct population segment) that is in danger of extinction throughout all or a significant portion of its range (ESA Section 3(6))." The lead federal agency, U.S. Fish and Wildlife Service, for the listing of a species as endangered is responsible for reviewing the status of the species on a five-year basis.

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**Endangered Species Act (ESA) (16 USC 1531 et seq.)** — An Act to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved and to provide a program for the conservation of such endangered species and threatened species.

**Environmental Assessment (EA)** — An environmental analysis prepared pursuant to the *National Environmental Policy Act* to determine whether a Federal action would significantly affect the environment and thus require a more detailed environmental impact statement (EIS).

**Executive Order** — Official proclamation issued by the President that may set forth policy or direction or establish specific duties in connection with the execution of federal laws and programs.

**Finding of No Significant Impact (FONSI)** — A document prepared by a federal agency showing why a proposed action would not have a significant impact on the environment and thus would not require preparation of an Environmental Impact Statement. A FONSI is based on the results of an Environmental Assessment.

**Floodplain** — The flat or nearly flat land along a river or stream or in a tidal area that is covered by water during a flood.

**Flora** — Plants considered as a group, especially the plants of a particular country, region, or time.

**National Environmental Policy Act (NEPA)** — The Act as amended articulates the federal law that mandates protecting the quality of the human environment. It requires federal agencies to systematically assess the environmental impacts of their proposed activities, programs, and projects including the “no action” alternative of not pursuing the proposed action. NEPA requires agencies to consider alternative ways of accomplishing their missions in ways which are less damaging to the environment.

**National Historic Preservation Act of 1966 (16 USC 470 et seq.)** — An Act to establish a program for the preservation of historic properties throughout the nation, and for other purposes, approved October 15, 1966 [Public Law 89-665; 80 STAT.915; 16 USC 470 as amended by Public Law 91-243, Public Law 93-32 54, Public Law 94-422, Public Law 94-458, Public Law 96-199, Public Law 96-244, Public Law 96-515, Public Law 98-483, Public Law 99-514, Public Law 100-127, and Public Law 102-575].

**National Register of Historic Places (National Register)** — A register of districts, sites, buildings, structures, and objects important in American history, architecture, archaeology, and culture, maintained by the Secretary of the Interior under authority of Section 2(b) of the *Historic Sites Act of 1935* and Section 101(a)(1) of the *National Historic Preservation Act of 1966*, as amended.

**Organic Act** — Enacted in 1916, this Act commits the National Park Service to making informed decisions that perpetuate the conservation and protection of park resources unimpaired for the benefit and enjoyment of future generations.

**Scoping** — Scoping, as part of NEPA, requires examining a proposed action and its possible effects; establishing the depth of environmental analysis needed; determining analysis procedures, data needed, and task assignments. The public is encouraged to participate and submit comments on proposed projects during the scoping period.

**Topography** — The physical features of a surface area including relative elevations and the position of natural and man-made (anthropogenic) features.

**Viewshed** — A physiographic area composed of land, water, biotic, and cultural elements which may be viewed and mapped from one or more viewpoints and which has inherent scenic qualities and/or aesthetic values as determined by those who view it.



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**Wetlands** — The U.S. Army Corps of Engineers (Federal Register, 1982) and the Environmental Protection Agency (Federal Register, 1980) jointly define wetlands as: Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

## Appendix A – Letter from MDDNR



Martin O'Malley, Governor  
Anthony G. Brown, Lt. Governor  
John R. Griffin, Secretary  
Eric Schwab, Deputy Secretary

April 20, 2009

Mr. Stephen W. Syphax  
National Park Service  
National Capital Parks – East  
1900 Anacostia Drive, S.E.  
Washington, DC 20020

**RE: Environmental Review for Proposed Development and Improvements on Alice Ferguson Foundation Property Located Within Piscataway Park, Prince George's County, Maryland.**

Dear Mr. Syphax:

The Wildlife and Heritage Service's Natural Heritage database indicates that there are records for the following rare, threatened or endangered plants or animals occurring on the project site:

There is a site referred to as Mockley Point Ravine which supports:

<u>Scientific Name</u>	<u>Common Name</u>	<u>State Status</u>
<i>Smilax pseudochina</i>	Halberd-leaved Greenbrier	Threatened
<i>Matelea carolinensis</i>	Anglepod	Endangered
<i>Juncus brachycarpus</i>	Short-fruited Rush	Uncertain*

\*Official status of this species is Uncertain, but it is considered to be possibly rare in Maryland.

The portion of Accokeek Creek that is located on the project site supports:

<u>Scientific Name</u>	<u>Common Name</u>	<u>State Status</u>
<i>Carex hitchcockiana</i>	Hitchcock's Sedge	Endangered
<i>Tachopteryx thoreyi</i>	Gray Petaltail	Rare
<i>Myosotis macrosperma</i>	Large-seeded Forget-me-not	Rare

While it is possible for any of these species to occur at other locations of the project site than those documented ones, we are especially concerned with those that appear to be located within areas proposed for disturbance. In order to avoid adverse impacts to these important native species, we would encourage the applicant to have surveys conducted to determine the extent of these populations so that they may be avoided during all phases of work. Such surveys should be conducted by an observer familiar with the species at the time of year when the species is most readily identifiable.

Tawes State Office Building • 500 Taylor Avenue • Annapolis, Maryland 21401  
410.260.8DNR or toll free in Maryland 877.620.8DNR • [www.dnr.maryland.gov](http://www.dnr.maryland.gov) • TTY users call via Maryland Relay

The population of Anglepod is known to occur over 4 acres on the project site, and is in very close proximity to sites A, B, C, D.1 and D.2. The habitat for this species is generally described as: Rich wooded slopes bordering streams (Radford et al 1968); in thickets or climbing on fences (Tuttnall 1946); dry rich woods (MDNHP).

Site E is within close proximity to the Large-seeded Forget-me-not population and the Gray Petaltail record location. Habitat for Large-seeded Forget-me-not is described as: Alluvial woods and fields (Radford et al 1968); loamy calcareous woods and bottomlands (Fernald 1950). The Gray Petaltail is associated with forested seepage areas along Accokeek Creek.

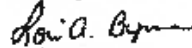
In addition, our analysis of the information provided also suggests that the forested area on the project site contains Forest Interior Dwelling Bird habitat. Populations of many Forest Interior Dwelling Bird species (FIDS) are declining in Maryland and throughout the eastern United States. The conservation of FIDS habitat is strongly encouraged by the Department of Natural Resources. In order to do so, the following guidelines could be incorporated into the site design to help minimize the project's impacts on FIDS and other native forest plants and wildlife:

1. Restrict development to nonforested areas.
2. If forest loss or disturbance is unavoidable, concentrate or restrict development to the following areas:
  - a. the perimeter of the forest (i.e., within 300 feet of existing forest edge)
  - b. thin strips of upland forest less than 300 feet wide
  - c. small, isolated forests less than 50 acres in size
  - d. portions of the forest with low quality FIDS habitat, (i.e., areas that are already heavily fragmented, relatively young, exhibit low structural diversity, etc.)
3. Maximize the amount of forest "interior" (forest area >300 feet from the forest edge) within each forest tract (i.e., minimize the forest edge:area ratio). Circular forest tracts are ideal and square tracts are better than rectangular or long, linear forests.
4. Minimize forest isolation. Generally, forests that are adjacent, close to, or connected to other forests provide higher quality FIDS habitat than more isolated forests.
5. Limit forest removal to the "footprint" of houses and to that which is necessary for the placement of roads and driveways.
6. Minimize the number and length of driveways and roads.
7. Roads and driveways should be as narrow and as short as possible; preferably less than 25 and 15 feet, respectively.
8. Maintain forest canopy closure over roads and driveways.
9. Maintain forest habitat up to the edges of roads and driveways; do not create or maintain mowed grassy berms.
10. Maintain or create wildlife corridors.
11. Do not remove or disturb forest habitat during April-August, the breeding season for most FIDS. This seasonal restriction may be expanded to February-August if certain early nesting FIDS (e.g., Barred Owl) are present.
12. Landscape homes with native trees, shrubs and other plants and/or encourage homeowners to do so.

13. Encourage homeowners to keep pet cats indoors or, if taken outside, kept on a leash or inside a fenced area.
14. In forested areas reserved from development, promote the development of a diverse forest understory by removing livestock from forested areas and controlling white-tailed deer populations. Do not mow the forest understory or remove woody debris and snags.
15. Afforestation efforts should target a) riparian or streamside areas that lack woody vegetative buffers, b) forested riparian areas less than 300 feet wide, and c) gaps or peninsulas of nonforested habitat within or adjacent to existing FIDS habitat.

Thank you for allowing us the opportunity to review this project. If you should have any further questions regarding this information, please contact me at (410) 260-8573.

Sincerely,



Lori A. Byrne,  
Environmental Review Coordinator  
Wildlife and Heritage Service  
MD Dept. of Natural Resources

ER # 2009.0275.pg  
Cc: K. McCarthy, DNR

## Appendix B – Letter from USFWS



### United States Department of the Interior

FISH AND WILDLIFE SERVICE  
Chesapeake Bay Field Office  
177 Admiral Cochrane Drive  
Annapolis, MD 21401  
410/673-4575



February 25, 2009

United States Department of the Interior  
National Park Service  
National Capital Park East  
1900 Anacostia Drive, S.E.  
Washington, D.C. 20020

*RE: Alice Ferguson Foundation Property Piscataway Park Prince George's County MD*

Dear: Stephen W. Syphax

This responds to your letter, received February 17, 2009, requesting information on the presence of species which are federally listed or proposed for listing as endangered or threatened within the vicinity of the above reference project area. We have reviewed the information you enclosed and are providing comments in accordance with section 7 of the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*).

Except for occasional transient individuals, no federally proposed or listed endangered or threatened species are known to exist within the project impact area. Therefore, no Biological Assessment or further section 7 Consultation with the U.S. Fish and Wildlife Service is required. Should project plans change, or if additional information on the distribution of listed or proposed species becomes available, this determination may be reconsidered.

This response relates only to federally protected threatened or endangered species under our jurisdiction. For information on the presence of other rare species, you should contact Lori Byrne of the Maryland Wildlife and Heritage Division at (410) 260-8573.

Effective August 8, 2007, under the authority of the Endangered Species Act of 1973, as amended, the U.S. Fish and Wildlife Service (Service) removed (delisted) the bald eagle in the lower 48 States of the United States from the Federal List of Endangered and Threatened Wildlife. However, the bald eagle will still be protected by the Bald and Golden Eagle Protection Act, Lacey Act and the Migratory Bird Treaty Act. As a result, starting on August 8, 2007, if your project may cause "disturbance" to the bald eagle, please consult the "National Bald Eagle Management Guidelines" dated May 2007.

If any planned or ongoing activities cannot be conducted in compliance with the National Bald Eagle Management Guidelines (Eagle Management Guidelines), please contact the Chesapeake Bay Ecological Services Field Office at 410-573-4573 for technical assistance. The Eagle Management Guidelines can be found at:

<http://www.fws.gov/migratorybirds/issues/BaldEagle/NationalBaldEagleManagementGuidelines.pdf>

In the future, if your project can not avoid disturbance to the bald eagle by complying with the Eagle Management Guidelines, you will be able to apply for a permit that authorizes the take of bald and golden eagles under the Bald and Golden Eagle Protection Act, generally where the take to be authorized is associated with otherwise lawful activities. This proposed permit process will not be available until the Service issues a final rule for the issuance of these take permits under the Bald and Golden Eagle Protection Act.

An additional concern of the Service is wetlands protection. Federal and state partners of the Chesapeake Bay Program have adopted an interim goal of no overall net loss of the Basin's remaining wetlands, and the long term goal of increasing the quality and quantity of the Basin's wetlands resource base. Because of this policy and the functions and values wetlands perform, the Service recommends avoiding wetland impacts. All wetlands within the project area should be identified, and if construction in wetlands is proposed, the U.S. Army Corps of Engineers, Baltimore District, should be contacted for permit requirements. They can be reached at (410) 962-3670.

We appreciate the opportunity to provide information relative to fish and wildlife issues, and thank you for your interests in these resources. If you have any questions or need further assistance, please contact Devin Ray at (410) 573-4531.

Sincerely,



Leopoldo Miranda  
Field Supervisor

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## Appendix C – Letter from Mt. Vernon Ladies Association



April 21, 2009

Ms. Guyle Hazelwood  
Superintendent  
National Capital Parks-East  
National Park Service  
1900 Anacostia Drive, SE  
Washington, DC 20020

Dear Ms. Hazelwood,

I am writing on behalf of the Mount Vernon Ladies' Association in reference to a project that is currently being planned by the Alice Ferguson Foundation, to construct two education buildings and a number of smaller associated structures on their property. After participating in a balloon test (January 2007) to assess the degree of visibility of the proposed building site from Mount Vernon, and reviewing the plans and elevations for the buildings, we have no objection to the project as it is currently envisioned.

The results of the balloon test indicate that any structures located at the proposed site would be invisible from Mount Vernon at a height of less than 52 feet above the current ground surface. As the plans that we have reviewed (dated January 30, 2009) indicate that the highest point of the buildings in question would be @43 feet above the ground, we are reassured that the project will not be visible from the east lawn of the Mount Vernon Mansion. Obviously, if any changes are made to the plans in the future that would call for raising the height of the buildings significantly, we reserve the right to reconsider our assessment.

Thank you for your attention to this matter, and for your ongoing commitment to preserving the integrity of the Mount Vernon viewshed.

Sincerely yours,

Dennis J. Pogue, PhD  
Associate Director, Preservation



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 wise use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historic 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. The department also promotes the goals of the Take Pride in America campaign by encouraging stewardship and citizen responsibility for the public lands and promoting citizen participation in their care. The department also has major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.