



## FINDING OF NO SIGNIFICANT IMPACT

### WETLAND RESTORATION PLAN

Chesapeake & Ohio Canal National Historical Park  
Monocacy National Battlefield  
Harpers Ferry National Historical Park  
Catoctin Mountain Park

The National Park Service (NPS) prepared an Environmental Assessment (EA) for a Wetland Restoration Action Plan (WRAP) for four parks within the National Capital Region (NCR): Chesapeake & Ohio Canal National Historical Park (C&O Canal NHP), Monocacy National Battlefield (Monocacy NB), Harpers Ferry National Historical Park (Harpers Ferry NHP), and Catoctin Mountain Park (Catoctin MP). The EA compared environmental impacts associated with baseline condition (no action) to those of the proposed action, which provides a comprehensive approach to restoring, enhancing, and/or protecting wetlands, waterways, and riparian habitats. The plan will prioritize areas and provide specific applications to deal with individual wetland resources and deficiencies. The plan will provide: guidance to park managers so that they may set priorities to restore, enhance, and/or protect existing wetlands; inform project implementation permit requirements and guide where wetland mitigation requirements can occur; identify wetlands areas to implement restoration/ enhancement activities; track the “functional gains” on wetlands and floodplains; assess wetland baseline conditions; prioritize potential wetland enhancement projects; provide a step-by-step framework for park managers to complete projects; and to minimize or eliminate non-climate induced stressors on wetland systems.

The EA was prepared in accordance with the National Environmental Policy Act of 1969 (NEPA), the regulations of the Council on Environmental Quality (CEQ) for implementing NEPA (40 Code of Federal Regulations [CFR] 1500-1508), and NPS Director’s Order (DO) 12, *Conservation Planning, Environmental Impact Analysis, and Decision-making*. The statements and conclusions reached in this finding of no significant impact (FONSI) are based on documentation and analysis provided in the EA and associated decision file. To the extent necessary, relevant sections of the EA are incorporated by reference below.

### SELECTED ALTERNATIVE

Based on the analysis presented in the EA, NPS selected Alternative B – Action Alternative (page 13 of the EA) for implementation. The selected alternative will provide a comprehensive approach to restoring, enhancing, and/or protecting wetlands, waterways, and riparian habitats at four NCR parks when opportunities or mitigation needs arise in the future. Forty-two potential sites were identified within the four NCR parks for potential restoration under Alternative B. Proposed restoration actions under alternative B include invasive species control, native plantings/riparian buffer enhancement, restoration of natural hydrology, increasing fish passage, converting open water to vegetated wetlands, full channel restoration, increasing aesthetics or educational value, and agricultural/disturbance exclusion fencing. Site specific information and recommendations for each identified wetland are provide for Appendix B (Wetland Restoration Action Plan). When faced with construction projects that may negatively affect park resources, the NPS will be able to refer to the recommendations in Alternative B when determining priorities for restoration. At the time of implementation at any of the listed sites, an up-to-date wetland delineation will be conducted, and the overall designed will be compared to what is provided in the EA to ensure that the overall impact analysis is still accurate, and to determine if any USACE 404/401 permits or additional compliance would be required.

## **RATIONAL FOR DECISION**

The selected alternative best meets the purpose and need for the proposed action which is to provide a comprehensive approach to restoring, enhancing, and/or protecting wetlands, waterways, and riparian habitats as opportunities become known in the future. It prioritizes areas and provides specific applications to deal with individual wetland resources and deficiencies. It provides the needed guidance to park managers so that they may set priorities to restore wetlands, it informs permit requirements, identifies wetlands areas to implement restoration activities, tracks the “functional gains” on wetlands and floodplains, it can protect resources from continued degradation, assess wetland baseline conditions, prioritize potential wetland enhancement projects, provide a step-by-step framework for park managers to complete projects, and it can minimize or eliminate non-climate induced stressors on wetland systems. Whereas the current wetland management in the parks is limited since the parks mainly manage their wetland resources as issues arise. Currently invasive species removal and the planting of native plants is the main action to manage wetlands at the parks.

## **MITIGATION MEASURES**

The NPS places emphasis on avoiding, minimizing, and mitigating potentially adverse environmental impacts. Since the proposed action is to restore, enhance, and/or protect wetlands, waterways, and riparian habitats, traditional mitigation measures are not needed for natural resources. However, during implementation of the restoration techniques NPS will avoid or minimize any unnecessary disturbance to existing natural resources. This EA provided an overview of mitigation (page 52 of the EA).

To ensure that the restoration activities do not adversely affect cultural resources, the parks will employ the following mitigation measures where appropriate:

- Qualified NPS cultural resource specialists will be consulted to determine if cultural resources are present in areas proposed for restoration or if the area needs to be surveyed for cultural resources prior to work being done.
- If previously unknown archeological resources were discovered during sub-surface ground-disturbing activities, the NPS will suspend operations at the site and immediately contact the appropriate cultural resource specialist, who will arrange for a determination of eligibility in consultation with the State Historic Preservation Office (SHPO) and, if necessary, would develop a recovery plan.

## **FINDING OF NO SIGNIFICANT IMPACT**

As documented in the EA the selected alternative has the potential for both beneficial and adverse impacts on wetlands (includes streams and floodplains), vegetation, wildlife and wildlife habitat, and cultural resources, however, the NPS has determined that the selected alternative can be implemented without significant adverse effects, as defined in 40 CFR §1508.27.

Restoration techniques including converting open water to vegetated wetlands, increasing fish passage, and restoration of natural hydrology, will result in temporary adverse impacts on wetlands due to the use of heavy equipment and construction activities such as removal of culverts, filling, excavation, and grading. The restoration technique that results in the most adverse impact on wetlands during construction is full channel restoration. This technique includes the placement of large structures within the stream channel, which will require grading, excavation, bank armoring, and filling of existing channel areas by heavy machinery resulting in disturbance along the stream banks. All of these construction activities will contribute to adverse impacts on streams due to disturbance of the stream banks resulting in potential water quality issues such as turbidity. However, in the long term, all of the restoration techniques proposed will result in beneficial impacts on wetlands and streams. Removal of invasive species will allow more native wetland vegetation to establish in areas previously dominated by invasive plants; native plantings will enhance the existing vegetation; restoration of natural hydrology will improve the function and health of streams; converting open water to vegetated wetlands will allow more native wetland vegetation to establish; increasing fish passage restores safe upstream and downstream fish passage; full

channel restoration restores a degraded stream ecosystem to a more stable, healthy condition; increasing educational value will help visitors to understand the importance of wetlands; and agricultural exclusion fencing will prevent disturbance of the wetlands thus allowing more native wetland vegetation to establish.

Many of the restoration techniques including restoration of natural hydrology, converting open water to vegetated wetlands, increasing fish passage, full channel restoration, increasing aesthetic/educational value, and agricultural/disturbance exclusion fencing would result in adverse impacts on vegetation, wildlife, and wildlife habitat during implementation. The most disturbance would occur from the restoration of natural hydrology, converting open water to vegetated wetlands, increasing fish passage, and full channel restoration due to use of heavy equipment resulting in land disturbance; however, at the completion of construction for these techniques, the site would be restored to preexisting conditions which includes revegetation with native species. In the long term, the proposed restoration techniques would result in beneficial impacts on vegetation, wildlife, and wildlife habitat. Removal of invasive species would allow more native wetland vegetation to establish, native plantings would enhance the existing vegetation, converting open water to vegetated wetlands would allow more native wetland vegetation to establish thus providing a more diverse wildlife habitat including additional cover and food for wildlife species to utilize, and agricultural exclusion fencing would prevent disturbance of wetland plants thus allowing more native vegetation to establish. Restoration of the natural hydrology, increasing fish passage, and full channel restoration would benefit aquatic wildlife by restoring the stream to more natural conditions. Wildlife would benefit indirectly by providing education to visitors on the importance of wildlife habitat and agricultural exclusion fencing would prevent disturbance of wetland plants thus allowing native vegetation habitat to establish providing an improved quality habitat for wildlife.

Implementing the selected alternative will avoid adverse impacts to archeological resources by first consulting with NPS archeologist or cultural resource specialists to determine if archeological resources are present in areas proposed for restoration and whether the area needs to be surveyed for archeological resources prior to work being done. Extent of restoration efforts will be dependent on the ability to avoid impacts to archeological resources. Adverse impacts could occur from full channel restoration from the potential introduction of non-historic structures (e.g., boulders, porous weirs, logjams) but will diminish over time as the site naturalizes. The placement of educational signs and exclusion fencing will result in effects to cultural landscapes also due to the introduction of non-historic features. These alterations will be adverse; but, the parks will work with a qualified NPS Cultural Resource Professional to minimize impacts to the cultural landscape. In addition, as part of Section 106 of the National Historical Preservation Act (NHPA) to ensure the appropriate treatment of historic properties the NPS entered into a Programmatic Agreement (PA) with the Maryland and Virginia State Historic Preservation Officers (SHPOs) that includes stipulations for conducting surveys and identifying cultural resources, and establishes steps for meeting its NHPA responsibility prior to subsequent project-specific actions. The stipulations in the PA serve to outline future project reviews and identify avoidance, minimization, and mitigation measures for potential adverse effects to any historic properties. The PA defines the process to comply with Section 106 because the “effects to historic properties cannot be fully determined in advance.” The project will not result in the loss or destruction of significant scientific, cultural, or historical resources.

Cumulative impacts from other past, present and reasonably foreseeable future actions, have both beneficial and adverse impacts on natural resources. Actions resulting from deer management plans and invasive plant management plans when added to restoration actions proposed in the WRAP would result in beneficial impacts to natural resources at the parks. Projects including a submerged intake channel in the Potomac River and the restoration of canal operations at C&O Canal NHP, a transmission line project at Harpers Ferry NHP, and a bridge project at Monocacy NB would result in adverse impacts to natural resources at these parks. The cumulative projects that have been identified in this EA (pages 22 – 24 of the EA) would have no to minimal impacts on archeological resources and project activities would conform to Section 106 of the NHPA PA, to ensure that disturbance to archeological resources are avoided.

There will be no significant impacts on public health, public safety, or unique characteristics of the region. No highly uncertain or controversial impacts, unique or unknown risks, significant cumulative effects, or elements of precedence were identified. Implementation of the NPS selected alternative will not violate any federal, state, or local environmental protection law.

#### **AGENCY CONSULTATION**

The U.S. Fish and Wildlife Service (USFWS) was sent a copy of this EA and a consultation letter for review. Further consultation with the USFWS will be done in the future for specific projects as needed.

A Section 106 consultation letter was mailed to the SHPOs from the Maryland Historic Trust, the Virginia Department of Historic Resources, the West Virginia Division of Culture and History, and the DC Historic Preservation Office, informing them of the proposed plan, and requesting comment on the areas of potential effect. The PA includes stipulations for conducting surveys and identifying cultural resources, and establishes steps for meeting its NHPA responsibility as it implements restoration prior to subsequent project-specific actions. The stipulations in the PA serve to outline future project reviews and identify avoidance, minimization, and mitigation measures for potential adverse effects to any historic properties. In addition, the PA also addresses minimizing harm to the National Historic Landmark (NHL) Monocacy NB as required under Section 110(f) of the NHPA. Only the Virginia and Maryland SHPOs entered into the PA with the NPS, Maryland and the District of Columbia chose to look at the projects in a case by case basis. The NPS has notified the Advisory Council Historic Preservation and the NPS NCR NHL Program of this consultation regarding the NHL property.



## CONCLUSION

As described above, the selected alternative does not constitute an action meeting the criteria that normally requires preparation of an environmental impact statement (EIS). The selected alternative will not have a significant effect on the human environment in accordance with Section 102(2)(c) of NEPA.

Based on the foregoing, it has been determined that an EIS is not required for this project and, thus, will not be prepared.

**Recommended:**



Rick Slade  
Superintendent  
Catoclin Mountain Park

6/18/18

Date

**Recommended:**

  
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Kevin D. Brandt  
Superintendent  
Chesapeake & Ohio Canal National Historical Park

  
\_\_\_\_\_  
Date

**Recommended:**



Tyrone Brandyburg  
Superintendent  
Harpers Ferry National Historical Park


20 June 2018

Date

**Recommended:**

A handwritten signature in blue ink, reading "Christopher J. Stubbs", written over a horizontal line.

Christopher J. Stubbs  
Superintendent  
Monocacy National Battlefield

A handwritten date "6/12/18" in blue ink, written over a horizontal line.  
Date

Approved:



Robert A. Vogel  
Regional Director  
National Capital Region

6-22-18

Date



## **NON-IMPAIRMENT DETERMINATION**

### **WHY IS A NON-IMPAIRMENT DETERMINATION REQUIRED?**

Section 1.4.7 of *Management Policies 2006* states that:

[b]efore approving a proposed action that could lead to an impairment of park resources and values, an NPS decision-maker must consider the impacts of the proposed action and determine, in writing, that the activity will not lead to an impairment of park resources and values.

Actions that require preparation of Environmental Assessments (EAs) and Environmental Impact Statements (EISs) constitute actions that may have the potential to impair park resources or values. Therefore, a non-impairment determination must be made for any action selected in a Finding of No Significant Impact (FONSI) or Record of Decision (ROD) that could impact park resources and values and to which the National Park Service (NPS) is a signatory. The non-impairment determination is completed only for the selected action.

### **WHAT IS IMPAIRMENT?**

Sections 1.4.5 and 1.4.6 of *Management Policies 2006* provide an explanation of impairment. Section 1.4.5 defines impairment as:

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

Section 1.4.5 goes on to state that:

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

- Necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park
- Key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park, or
- Identified as a goal in the park's general management plan or other relevant NPS planning documents as being of significance.

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

Section 1.4.6 of *Management Policies 2006* identifies the park resources and values that are subject to the non-impairment standard.

The "park resources and values" that are subject to the non-impairment standard include:

- the park's scenery, natural and historic objects, and wildlife, and the processes and condition that sustain them, including, to the extent present in the park: the ecological, biological, and physical processes that created the park and continue to act upon it; scenic features; natural

visibility, both in daytime and at night; natural landscapes; natural soundscapes and smells; water and air resources; soils; geological resources; paleontological resources; archeological resources; cultural landscapes; ethnographic resources; historic and prehistoric sites, structure, and objects; museum collections; and native plants and animals;

- appropriate opportunities to experience enjoyment of the above resources, to the extent that can be done without impairing them;
- the park's role in contributing to the national dignity, the high public value and integrity, and the superlative environmental quality of the national park system, and the benefit and inspiration provided to the American people by the national park system; and
- any additional attributes encompassed by the specific values and purposes for which the park was established.

### **HOW IS A NON-IMPAIRMENT DETERMINATION MADE?**

Section 1.4.7 of *Management Policies 2006* states that

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

*Management Policies 2006* further define “professional judgment” as

“a decision or opinion that is shaped by study and analysis and full consideration of all the relevant facts, and that takes into account the decision-maker's education, training, and experience; advice or insights offered by subject matter experts and others who have relevant knowledge and experience; good science and scholarship; and, whenever appropriate, the results of civic engagement and public involvement activities relation to the decision.”

### **HOW IS A WRITTEN NON-IMPAIRMENT DETERMINATION PREPARED?**

This determination on impairment has been prepared for the selected alternative, as described in the EA. Topics from the EA that were evaluated for potential impairment due to implementation of the selected alternative include: wetlands and floodplains, vegetation, wildlife and wildlife habitat, and cultural resources. Impairment determinations are not made for human health and safety, visitor use and experience, and land use as these topics do not constitute impacts to park resources and values subject to the non-impairment standard by the Organic Act.

### **RESOURCES OF THE PARKS**

**Chesapeake and Ohio Canal National Historical Park.** The C&O Canal NHP is the last towpath that remains fully intact from the mule-drawn barge transportation era in the United States. The C&O Canal NHP, established in 1971, is located along 184.5 miles of the Potomac River shoreline in Maryland. The C&O Canal NHP is historically significant primarily because it embodies nineteenth-century engineering and architectural technology. Today, the canal's remaining historical structures tell the story of the canal's important role in many aspects of American history, including transportation, engineering achievement, and commerce. The purpose of the park is to provide visitors the opportunity to understand the canal's

purpose and benefits during its time of operation; to appreciate the setting and the natural and human history of the canal; and to enjoy the recreational use of the canal, the parklands, and the adjacent Potomac River. The natural and cultural resources are integral to fulfilling the purpose of the park.

The C&O Canal NHP is situated along the floodplain of the Potomac River and is dominated by floodplain forests. The wetlands throughout the park are primarily depressions and seeps within the forested floodplain and the presence of the canal and towpath have caused some flooding of natural wetland areas, which have created some open water pond areas with emergent fringes. The park also contains commonly occurring invasive plant species and some wetlands areas have been disturbed by mowing and agricultural.

**Monocacy National Battlefield.** Approximately two miles of the Monocacy River run through Monocacy NB. Additionally, the CSX railroad line (historic Baltimore & Ohio Railroad) also extends through the national battlefield, paralleling the Monocacy River and Bush Creek, and the historic Urbana Pike runs north-south through the eastern part of the national battlefield. These transportation corridors made Monocacy Junction an important crossroads and strategic location during the Civil War and influenced troop movements during the battle. The purpose of Monocacy NB is to preserve the breastworks, earthworks, walls, and other defenses and shelters used by the Confederate and Union armies on July 9, 1864, as well as the buildings, roads, and outlines of the battlefield; to commemorate the Battle of Monocacy; and to provide opportunities for visitors to understand and appreciate the significance of the Battle of Monocacy within the full context of the Civil War and US history.

A majority of Monocacy NP consists of agricultural fields, leaving a small portion of deciduous floodplain forest. Many of the wetland areas within the park consist of historically disturbed emergent wetlands that have been impacted by agricultural uses. These emergent wetlands are routinely mowed or brushed to keep shrub and tree species from developing and maturing.

**Harpers Ferry National Historical Park.** Harpers Ferry NHP lies at the confluence of the Potomac and Shenandoah rivers, where the states of West Virginia, Virginia, and Maryland converge. The national historical park was established primarily to preserve historic resources and to commemorate the historic events that occurred at Harpers Ferry for the benefit and enjoyment of all people.

The majority of Harpers Ferry NHP is covered with eastern deciduous forest. The wetlands within the park are mainly located along the floodplains at forested wetland systems or as emergent wetland seeps typically found along upland slopes. Other wetlands within the park consist of open water ponds where natural wetlands have been impacted by the creation of berms to increase water levels. Due to the disturbance of many of the wetland areas by continuous mowing practices and adjacent agricultural uses, many of the emergent wetlands are dominated by upland grass species.

**Catoctin Mountain Park.** Catoctin MP is part of the Blue Ridge Mountains, which stretch 500 miles from Georgia to a point just north of Catoctin MP. Along with neighboring Cunningham Falls State Park, Gambrill State Park, and the Frederick and Thurmont watersheds, Catoctin MP is part of the area known as Catoctin Mountain. Catoctin Mountain forms the easternmost section of the Blue Ridge and extends 50 miles from Emmitsburg, Maryland, to Leesburg, Virginia. Catoctin MP provides outdoor recreation opportunities for the Baltimore-Washington metropolitan areas and visitors from throughout the nation and the world. The park operates under the purpose that has been applied to the area since 1936. Accordingly, Catoctin MP is administered as a public park, for recreational purposes, to conserve all resources, as a buffer to the Presidential Retreat, and to record and protect historically significant resources such as the camp facilities at camps Misty Mount, Greentop, and Round Meadow.

Most of Catoctin MP is covered with forest and invasive species are present throughout the uplands of the

entire park. The majority of the wetlands within the park are headwater forested wetlands. Emergent wetlands were typically observed along the fringes of man made open water ponds.

#### **WETLANDS AND FLOODPLAINS**

The selected alternative will have short-term adverse impacts on wetlands and floodplains through the following techniques: converting open water to vegetated wetlands, increasing fish passage, restoration of natural hydrology, and full channel restoration. These techniques include the use of heavy equipment and construction activities, such as removal of culverts, filling, excavation, and grading; full channel restoration will have the greatest impacts from the placement of large structures within the stream channel, which will require grading, excavation, bank armoring, and filling of existing channel areas by heavy machinery resulting in disturbance along the stream banks. The remaining techniques, invasive species control, native plantings/riparian buffer enhancement, aesthetic/educational value, and agricultural/disturbance exclusion fencing, will not result in adverse impacts during implementation.

In the long-term, all techniques of the selected alternative will result in beneficial impacts on wetlands and floodplains. The selected alternative will improve the quality of wetlands and floodplains within the four parks beyond the current conditions. Some of the benefits include enhancing wetlands through establishment of native vegetation; improving the functions and health of streams through restoration of natural hydrology and the increase of fish passage; restoring ecosystems to more stable, healthy conditions through full restoration; and increasing educational value by helping visitors understand the importance of wetlands. Current and future generations of visitors will have greater opportunities to experience these resources; therefore, implementation of the selected action will not result in impairment to wetlands and floodplains.

#### **VEGETATION**

Nearly all the restoration techniques of the selected alternative will have short-term adverse impacts on vegetation at the four parks from disturbance. Construction activities could include the use of heavy machinery, filling, excavating, grading, removal of existing berms or culverts, placement of instream structures, vegetation clearing, and placement of fencing or natural barriers. However, following any ground disturbance activities, all habitats will be restored to preexisting conditions. In the long-term, many of the restoration techniques including invasive species control, native plantings/riparian buffer enhancement, converting open water to vegetated wetlands, and agricultural/disturbance exclusion fencing will result in beneficial impacts. Vegetation will be enhanced by removing invasive species, establishing more native species, converting open water to vegetated wetlands with native wetland vegetation, and preventing disturbance of wetland plants with agricultural exclusion fencing. Thus, the selected alternative will result in improved vegetation in the parks. Current and future generations of visitors will have similar opportunities to experience this resource. Therefore, implementation of the selected action will not result in impairment to vegetation.

#### **WILDLIFE AND WILDLIFE HABITAT**

Many of the restoration techniques of the selected alternative will result in short-term adverse impacts on wildlife and wildlife habitat from restoration construction activities (use of heavy equipment, filling, excavation, grading, removal of culverts, placement of instream structures, and installation of educational signs, trails, boardwalks, and exclusion fencing). Following construction, all disturbed habitats will be restored to preexisting conditions. Converting open water to vegetation wetland is the one restoration technique that will create long-term adverse impacts on wildlife and wildlife habitat, as it will affect fish that live in the areas proposed for conversion.

The restoration techniques of the selected alternative will benefit wildlife and wildlife habitat by reducing invasive species and planting native species, which increases the plant diversity and habitat value; creating additional wetland habitats, providing more diverse wildlife habitat including additional cover and food; restoring degraded stream ecosystems to stable, healthy conditions; restoring normal hydrologic conditions, which will improve aquatic wildlife habitat; improving fish passage in streams from the removal of physical barriers (culverts and other artificial obstructions) that impede fish passage; preventing disturbance of wetland habitat through the use of fencing; and providing education to visitors on the importance of wildlife habitat.

Although there will be long-term adverse impacts on fish in open water habitats proposed for conversion to wetlands, the selected alternative will create long-term beneficial impacts on wildlife and wildlife habitat under all other restoration scenario. Overall, wildlife and wildlife habitat will be improved within the parks under the selected alternative. Current and future generations of visitors will have similar opportunities to experience these resources. Implementation of the selected action will not result in impairment to wildlife and wildlife habitat.

## **CULTURAL RESOURCES**

To mitigate impacts to cultural resources, the NPS prepared a Programmatic Agreement, consistent with the provisions of 36 CFR Part 800.4(2), in consultation with the Maryland Historical Trust, Virginia Department of Historic Resources, West Virginia Division of Culture and History, and the DC Historic Preservation Office. The Programmatic Agreement includes stipulations for conducting surveys and identifying cultural resources.

The selected alternative could have adverse impacts on archeological resources from ground disturbances during invasive plant removal, native vegetation planting, the use of heavy machinery, removal or alternation of culverts, and installation of signs, fencing and barriers. To minimize the impact from these actions, the parks will consult with NPS cultural resource specialists to determine if archeological resources are present in proposed restoration areas or if the area needs to be surveyed prior to work being done. Several actions will have beneficial impacts on archeological resources. The placement of fill when restoring natural hydrology could provide an additional cap over the top of the archeological resource, and bank armoring will prevent erosion; this technique could be used for full channel restoration.

Effects to historic districts and cultural landscapes could involve alterations to contributing or character-defining features, which could include viewsheds and vistas, land use, vegetation, and spatial organization. During removal of invasive plants and planting native vegetation, the alternations will be minimal and short-term, as the landscape would naturalize over time. Long-term adverse impacts will occur when a non-historic structure is introduced into the landscape and this impact will persist as long as the structure is in place, but would diminish over time as the site naturalizes. The NPS will reduce impacts by consulting NPS Cultural Resource Specialists to minimize impacts to the cultural landscape, by selecting appropriate plant species and confirming that structures to be removed, such as culverts, do not contribute to the cultural landscape.

Although the restoration activities of the selected alternative could result in adverse effects on cultural resources, the Programmatic Agreement identifies measures to avoid, minimize, and mitigate potential adverse effects to cultural resources. The archeological resources, the historic districts, and the cultural landscapes at the parks will continue to exist in conditions similar to the current states. Current and future generations of visitors will have similar opportunities to experience these park resources; therefore, implementation of the selected action will not result in impairment to cultural resources.



## **SUMMARY**

As described above, environmental impacts and adverse effects anticipated from implementation of the selected alternative will not rise to levels that will constitute impairment of park values and resources in C&O Canal NHP, Monocacy NB, Harpers Ferry NHP, and Catoctin MP.

**NATIONAL CAPITAL REGION**

**WETLAND RESTORATION ACTION PLAN ENVIRONMENTAL ASSESSMENT**

**COMMENTS AND RESPONSES**

Comment	Response
<b>PEPC Project ID: 63663, DocumentID: 78745 Correspondence #1</b>	
<p>The dismissing of soils from consideration of the EA analysis is completely inappropriate for a restoration alternative scheme of any size or scale. Both USACE and NPS protocols for wetlands consider hydric soils a primary indicator of wetland status; therefore the restoration of hydrology and/or accompanying hydric soil supporting conditions has direct bearing on the feasibility of any restoration plan. Similarly, these conditions have direct bearing on the presence of upland invasive species, which most of these sites appear to have. No consideration is given to these sites in regards to the presence of hydric soils, buried or at surface, and therefore no restoration potential of the site can truly be ascertained. The report correctly asserts that many of the proposed practices would have little to no effect on soils; therefore the proposed actions would have little to no positive uplift of ecological functions and values at the proposed sites.</p>	<p>We agree that the restoration of hydrology and/or accompanying hydric soil supporting conditions has direct bearing on the feasibility of any restoration plan. Overall, soils were dismissed from further analysis in the EA, but consideration of hydric soils as a primary indicator of wetland status was addressed in the WRAP. In the section "Site Assessment Results and Rankings" in the WRAP on page 16 (appendix B) a detailed field assessment of the degraded portions of the wetlands and stream channels was conducted including an assessment of hydric soils. Also, see Table 7 on page 17 of the WRAP (appendix B). When sites are selected for restoration, a detailed description of ecological uplift would be thoroughly described for each and compared to baseline conditions.</p>
<p>Water quality is similarly dismissed as part of any restoration scheme for these projects; this approach completely neglects EPA and state-coordinated mandates for action on the Chesapeake Bay TMDL at appropriate sites. NPS makes no motion in this report to fulfill its duties for their treatment of impervious surfaces to be a participating partner with the states and EPA in the Chesapeake Bay cleanup. NPS is missing valuable opportunity to restore stream and wetland as part of treating existing impervious surfaces through the bay restoration protocols. At the barest minimum, site potential should consider the total non-point source pollution loading that could be reduced through restoration alternatives to demonstrate not only site-specific habitat improvements but improvements to the greater watershed and</p>	<p>The EA does address that the four parks that are participating in this project are subject to the USEPA requirement that federal landowners must help reduce impacts to the Chesapeake Bay. On page 3 of the EA it states that "These parks are working with state and county offices on implementation of Bay Watershed Implementation Plans (WIPs), required by Executive Order 13508, to show efforts being made to enhance the larger watershed. As an added benefit to the purpose and need of the WRAP, the WRAP will help the parks understand the steps that can be taken to meet the larger objective which is to track "functional gains" on wetlands and floodplains and will provide a document outlining the parks' plans to contribute to the Chesapeake Bays protection."</p>

Comment	Response
<p>receiving waters. These benefits all have bearing in an EA.</p>	
<p>Similarly, this EA and accompanying report dismisses climate change; nowhere does it show the practices proposed for restoration are resilient with climate change, or are consistent with established executive orders and mandates towards sequestration of carbon. This EA dismisses this problem as greater than the scope of the work; when really incremental changes and individual projects will have additive effect on global climate, and selecting restoration methods which can endure through climate change without ecosystem simplifications will prevent the need to conduct additional work at these sites following a failed restoration attempt.</p>	<p>Even though climate change is dismissed from further analysis, the EA addresses climate change as one of the needs of the WRAP. See page 2 of the EA: The WRAP is needed to provide guidance to park managers so that they may “minimize or eliminate non-climate induced stressors on wetland systems in order to strengthen natural responses or adaptations to climate-change effects; restore degraded wetland conditions that, if left alone, would compound the adverse effects of climate change; and by restoring wetland systems, optimize the opportunities for managers to select the best management strategies (ranging from fighting adverse climate change effects to facilitating the new-normal conditions produced by climate change)”</p>
<p>Wetland functional assessments. The functions and values assessed are typically part of the New England / Highway methodology and are subject to user bias. Many are subjective. For example, those functions and values relating to hydrology are often mis-characterized by practitioners with a poor understanding of surface and groundwater interaction in fully-functioning reference wetland systems. For example, at multiple surveyed sites, floodplain wetlands are identified as being connected to the channel because of their proximity, and not their elevation relative to the groundwater table. It would be more appropriate to assess these sites through a more robust methodology, such as one with geomorphic basis, than what is demonstrated here.</p>	<p>According to the NPS Procedural Manual (PM) #77-1: Wetland Protection (2016), prior to conducting methods for assessing wetland functions, consultation with NPS Water Resources Division (WRD) is encouraged. There are many appropriate methods that can be used for assessing wetland functions/values and no one, single method is required by NPS as stated in PM #77-1. As a result, a particular published method can also be adapted and tailored to be most appropriate for a particular NPS site. The functional wetland assessment was conducted in accordance with and adapted from the Wetlands Functions and Values: A Descriptive Approach described in the September 1999 supplement to The Highway Methodology Workbook (Supplement) by the New England Division of the USACE (USACE 1999). This methodology uses a descriptive approach to characterize functions and values of wetlands and is highly useful for linear sites (hence as the highway name implies) such as the C&amp;O Canal NHP. Kevin Noon at NPS WRD was consulted and approved of this method prior to the fieldwork being initiated. The functions/ values described in PM #77-1 and the New England Method were used in this assessment. These particular functions and values are important to NPS and also reflect the functions/values described in the New England Method. Additionally, the New England Method is consistent with NEPA, recognizing sensitivity to habitat preservation on the one hand and socioeconomic development or cultural resources preservation, on the other. Many NPS wetland delineations ultimately require a SOF through</p>

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	NEPA requirements and since the New England Method is consistent with NEPA it was appropriately selected and approved by NPS.
<p>While "increasing fish passage" is identified as a goal in the report, the more appropriate goal would be for improving opportunities for aquatic organism passage. This recognizes that more than fish have a vested interest in passage through culverts; vegetated wetland benches are also necessary for the passage of turtles, amphibians and other species which utilize a riparian corridor. Additionally, American Eel should be identified as a species of concern in these watersheds, as well as the game and forage fish present. Limiting the goal to only fish is a missed opportunity.</p>	<p>The USFWS reviewed the status of the American eel in 2007 and in 2015, finding both times that Endangered Species Act protection for the American eel was not warranted. The USFWS has found that the American eel population is stable and has been sent a copy of the EA for review and comment. The USFWS has not specifically requested consideration of the American eel in the analysis. The analysis of the technique "increasing fish passage" within the "Wildlife and Wildlife Habitat" section on page 41 of the EA is a general discussion of fish that includes all species of fish such as game and forage fish.</p> <p>The restoration concepts proposed for the WRAP are general in nature and additional survey would be required to propose more detailed restoration design. It is highly likely that after specific opportunities are identified, design details such as vegetated wetland benches can be incorporated to allow passage of turtles, amphibians, etc.</p>
<p>The report discussion of "Full Channel Restoration" is inappropriate for the ecological potential of these sites, and does not represent the state-of-the-art thinking on the subject. For example, the placement of structures is in most cases an unsuccessful approach of limited design life for most of these systems, which suffer from centuries of impaired land use contributing to entrenched channel conditions. In many cases, as evaluated through the project photologs as well as google earth investigation and knowledge of these resources through various watershed assessments by local and state operators, these lack sufficient floodplain for stability of higher discharges. Additionally, the discussion of bank armoring is in most cases inappropriate and not a resilient approach to channel restoration for these project sites. Particularly in NPS systems, where there is no critical infrastructure, bank armoring should be used at the barest minimum. Per local regulatory guidance, bank armoring is NOT regarded as a channel restoration practice, but an impact; NPS should revise their consideration of such practices as impacts, and</p>	<p>In an effort to streamline the proposed restoration concepts for the 42 selected sites, 7 different techniques were used when developing the restoration strategies, including minor techniques such as treatment of invasive species to highly engineered strategies such as full channel restoration to cover a range of scenarios across approximately 10,000 acres and 184 linear miles of NPS land. The restoration of natural hydrology was also a suggested technique that takes into consideration floodplain reconnection for habitat restoration. It is stated in the EA on page 17 that additional restoration techniques may be employed at the sites and that the restoration concepts proposed are general in nature and additional survey would be required to propose more detailed restoration design. Therefore, if full channel restoration was to be employed at one of the sites, the maximum, adverse impacts to resources was fully discussed in this EA. Obviously, bank armoring is generally not a priority in stream restoration, but may be required in certain cases to protect natural or cultural resources on NPS lands. In order to capture the range of impacts, this technique and the proposed</p>

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civil engineering structures, rather than habitat restoration practices.	impacts were conservatively discussed to appropriately comply with the NEPA analysis.
In regards to the exclusion fencing proposed practices, this is typically a good start towards conservation; however, much of these practices limit overland erosion and agricultural runoff, and with water quality excluded from the EA's consideration, these practices will have limited if any positive impact. NPS should evaluate water quality as part of their EA, as well as address the retirement of lands, exclusion fencing, and restoration of riparian buffer as potential restoration practices.	This comment is addressed on page 31, 37, and 42 of the EA – in the long term, there would be a beneficial impact on wetlands, vegetation, and wildlife habitat since the fencing would prevent ongoing disturbances to the wetlands within the exclusion area thus allowing for natural plant growth and production as well as natural succession of plant communities. Water quality was not excluded from consideration in the EA. It was dismissed as a separate topic of analysis, but impacts on water quality either adverse or beneficial from the restoration techniques were discussed (see pages 28 and 31).
Although well meaning, the report and EA lacks critical analysis discussing the constructability, implementability, and overall feasibility of each proposed project site. It is therefore impossible to create a meaningful ranking of these sites. The report is inconsistent with other NPS restoration initiatives, such as those completed in 2012 and being implemented now at the Delaware Water Gap sites. Many sites involve roads, public access, culverts and other infrastructure and require analysis by an engineer to determine if these structures are even necessary, and real restoration alternatives for accomplishing goals such as aquatic organism passage at these sites, or the stable conveyance of flood flows and a connected base flow channel. For sites relatively free of infrastructure, engineering assessment to determine secondary impacts from construction staging and access, construction techniques, and overall feasibility of the ecological uplift of functions and values desired. Appropriate analysis by restoration engineers skilled in restoration in the geologies and watersheds proposed is recommended.	The WRAP was developed to provide a comprehensive approach/strategy to restoring, enhancing, and/or protecting wetlands, waterways, and riparian habitats. As stated on page 17 of the EA “additional restoration techniques may be employed at the proposed sites, the restoration concepts proposed for the WRAP are general in nature and additional survey would be required to propose more detailed restoration design.” On page 26 of the WRAP report (appendix B) it states, “Prior to developing any detailed design, a formal wetland delineation should be conducted at the proposed site and coordination carried out with the USACE as well as state regulatory agencies to determine if a 404/401 permit will be required. In addition to a detailed wetland delineation, the proposed sites may require additional studies such as hydrologic and hydraulic modeling, archeological surveys, soil borings, etc., depending on the extent of the proposed restoration design. A general list of future data needs for each site is provided in table 12. These additional data needs may change depending on the proposed restoration action and will be determined by the NPS and regulatory agencies as projects are selected and moved into the design phase.”
The report lacks specific analysis of historic impacts to ecosystems at the project sites. This could be coupled with necessary cultural investigations for each site, such as analysis of historic maps for the presence of mill dams, which have had extensive anthropogenic impact on these watersheds as well as the specific project sites. This information is widely available and free; there is no excuse not to discuss it. For	Cultural investigations for each site will be performed in the future once a specific project site is selected for restoration. As stated on page 52 of the EA, “steps would be taken to ensure that restoration activities do not adversely affect cultural resources”. In addition, the NPS has prepared a Programmatic Agreement (PA), that “defines the process to comply with Section 106 because the “effects to historic properties cannot be fully determined in advance.” The PA includes



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<p>example, although many are presently forested, the forested CATO sites have a history of being deforested within the last 400 years multiple times, with mining, logging, agriculture, and other impacts altering the sites. MONO-1 site exhibits typical high banks due to mill dams and overland alluvium deposition, as does HAFE-7, CHOH-17, CHOH-29, CHOH-31, MONO-4, MONO-6 and MONO-10. This is backed up with only cursory review of available online data sources. While the mill dams themselves have typically not been regarded as historic resources worth preserving, NPS should evaluate this in regards to their mission and determine if addressing the historic anthropogenic impacts associated with them are worth restoring.</p>	<p>stipulations for conducting surveys and identifying cultural resources.</p>
<p>Invasive species control is specified for the sites, however no mechanism for long term management is proposed nor is a fundamental conversion of the ecotype or geomorphology in order to prevent re-colonization of invasive species. As all of the practitioners of invasive species control at NPS sites know, the effort cannot be once and done, but a long-term effort with goals of control and not eradication. These control measures are more likely to cause disturbance and potential for additional invasive species cover, as well as collateral damage to native vegetation which would not achieve the stated goals. Therefore, without long-term management, this effort is likely wasted and may be worse than a no-action alternative. Similarly, native plantings without long-term invasive control are unlikely to have a high rate of success.</p>	<p>Long-term management is addressed under "Adaptive Management" on page 19 of the EA. "An annual monitoring program is proposed that would include maintenance of the restoration sites.... Maintenance measures may include, but are not limited to regrading, replanting, excavation, removal of sediment, substrate amendments, and alteration of hydrology. In order to meet the potential need for changing mitigation strategies or meeting with unexpected site conditions, an adaptive management plan would be used to ensure that mitigation and restoration goals are met for the site."</p>
<p>The term "restoration of natural hydrology" is unqualified, and poorly defined. Similarly, anthropogenic impact to ecosystems is discussed, but without context for historic impacts such as deforestation, agriculture, mining, sedimentation, removal of beaver and other historic impacts resulting from European colonization. Without discussion of these historic impacts, it is impossible to ascertain the potential for full ecological uplift, nor is it possible to understand the feasibility of any of these proposed best management practices. For example, at many culvert sites, it is not understood if the culverts</p>	<p>In an effort to streamline the proposed restoration concepts for the 42 selected sites, 7 different techniques were used when developing the restoration strategies, including minor techniques such as treatment of invasive species to strategies such as restoring hydrology to cover a range of scenarios across approximately 10,000 acres and 184 linear miles of NPS land. The restoration of natural hydrology was a suggested technique that takes into consideration floodplain reconnection for habitat restoration. It was stated in the EA on page 17 that additional restoration techniques may be employed at the sites and that the restoration concepts proposed are general in nature</p>

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<p>are recent, or if they are legacy of historic road crossings. Similarly, for many of the open meadow / high stream bank sites, there is evidence of buried hydric soil layers, basal gravel layers, etc. indicators which best practices in the watershed recognize as the pre-European settlement valley wetlands, buried by sediments from mill dams and poor agricultural stewardship for the last 400 years.</p>	<p>and additional survey would be required to propose more detailed restoration design. Resources that were analyzed in this EA included wetlands and floodplains, vegetation, wildlife and wildlife habitat, and cultural resources (historic structures and districts, cultural landscapes, and archeological resources). As sites are selected for more detailed design, additional data will be collected, including a detailed discussion of past site uses, including as-built plans when available.</p>
<p>In the photo logs, several sites are called out as stable despite being immediately downstream of highly impaired sites. It should be understood that these sites are stable given the present erosion and sediment loading delivered to them, and may not be in a condition with the project site restored. Nor is it qualified that these sites are not pristine; they are healed-over and self-restored sites. As such, comparisons with the functions and values of these sites relative to clearly impaired sites should be qualified in that there is no long-term monitoring data available for those sites that demonstrates stability and resiliency of ecological function.</p>	<p>It has always been assumed that some sites in the assessment were characterized as “stable” although bank erosion and sediment loading delivered were observed, and that this condition would change if the project site was restored. The WRAP is a decision-making document that describes potential restoration techniques that could possibly be employed at sites within the parks. A detailed search for monitoring data was not conducted as part of this effort, although it is very likely that these data do not exist. When sites are selected for restoration, a detailed description of ecological uplift would be thoroughly described for each and compared to baseline conditions.</p>
<p><b>PEPC Project ID: 63663, DocumentID: 78745 Correspondence #2</b></p>	
<p>We would like to see a better system of notification of Environmental Assessments. The EA process often involves public meetings; in this case, we have seen no scheduling of opportunities for public input.</p>	<p>The NPS announced the availability of the WRAP EA for public review on the PEPC Planning, Environment and Public Comment website, and the notice of availability was posted in several newspapers.</p>
<p>The C&amp;O Canal Association certainly agrees with the overall goal of the Action Plan, to restore wetlands. We would welcome more detail on the priorities among the many wetlands to restore.</p>	<p>Details on prioritization is not known at this time since this is dependent on funding and opportunity. When faced with construction projects that may negatively affect park resources, the NPS will be able to refer to the recommendations in the WRAP when determining priorities for restoration. The WRAP report (appendix B) includes details on opportunities for restoration and enhancement (page 21), and a summary of WRAP recommendations (Page 25).</p>
<p>In addition, we would appreciate seeing the extent and further detail concerning the cultural resources that could be damaged or destroyed. To give but two examples at sites we know well, the figures in the appendices show wetlands to be restored at Swain's Lock (CHOH-31, page A-66) and the Seneca stonecutting mill (CHOH-30, pages A-64-65). In both cases, the only</p>	<p>As stated on page 52 of the EA, for all restoration techniques, “the following steps would be taken to ensure that restoration activities do not adversely affect cultural resources:</p> <ul style="list-style-type: none"> <li>• The parks would consult with NPS cultural resource specialists to determine if cultural resources are present in areas proposed for restoration or if the</li> </ul>

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<p>information we have says: "Known Cultural Concern? Yes." In cases such as these, it is critical to know which cultural features would be threatened by wetlands restoration.</p> <p>We would appreciate more detail in the instances where the restoration of wetlands would result in the destruction of the cultural and historical patrimony of the park.</p>	<p>area needs to be surveyed for cultural resources prior to work being done.</p> <ul style="list-style-type: none"> <li>• If archeological resources are discovered, the NPS would suspend operations at the site and immediately contact the appropriate cultural resource specialist, who would arrange for a determination of eligibility in consultation with the SHPO."</li> </ul> <p>In addition, the NPS has prepared a Programmatic Agreement (PA), "consistent with the provisions of 36 CFR Part 800.14 (b)(3), in consultation with the Maryland Historical Trust, Virginia Department of Historic Resources, West Virginia Division of Culture and History, and the DC Historic Preservation Office. The PA defines the process to comply with Section 106 because the "effects to historic properties cannot be fully determined in advance." The PA includes stipulations for conducting surveys and identifying cultural resources, and establishes steps for meeting its National Historic Preservation Act responsibility prior to subsequent project-specific actions. The stipulations in the PA serve to outline future project reviews and identify avoidance, minimization, and mitigation measures for potential adverse effects to any historic properties."</p>
<b>PEPC Project ID: 63663, DocumentID: 78745 Correspondence #3</b>	
<p>The Parks here include a battlefield, the site of conflict where lives were lost, and therefore sacred.</p> <p>The EA does suggest the presence of archaeological sites and material. THIS SHOULD BE A PRIORITY CONSIDERATION, not just a topic of perfunctory mention.</p> <p>The potential of the existence of human remains, however, deserves special attention. Battlefields have been set aside to honor the sites of these terrible conflicts and deserve special honor and respect. It is particularly offensive, especially in the case of Monocacy that all the actions seem careening to its transformation to a recreation area.</p>	<p>See the response above. Cultural resources including battlefields will be protected since the parks will be consulting with NPS Cultural Resource Specialists prior to work being done and the Programmatic Agreement identifies avoidance, minimization, and mitigation measures for potential adverse effects to any historic properties.</p>
<b>PEPC Project ID: 63663, DocumentID: 78745 Correspondence #4</b>	
<p>The Frederick County Division of Utilities and Solid Waste Management (DUSWM) has water</p>	<p>The NPS will prepare construction work plans and obtain DUSWM approval of the plans before any construction work commences.</p>

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<p>and sewer easements located within the boundaries of Monocacy National Battlefield.</p> <p>Access to Infrastructure – The wetland and stream restoration work in the vicinity of the water and sewer infrastructure will impede vehicular access for maintenance or repair of buried infrastructure within the respective easements and right-of-way. As such, the locations of these lines and their respective easements must be carefully addressed within the specific work plans developed.</p> <p>Infrastructure impacts – It appears the stream restoration work will impact buried infrastructure or damage above-ground appurtenances as work is completed by excavating equipment. Work plans must include provisions for protection of this existing infrastructure as work is completed. The majority of DUSWM infrastructure is located in work area MONO-04.</p> <p>As final work plans are developed, we urge the NPS or their contractor to communicate directly with DUSWM to closely coordinate work in this area to avoid any potential issues, damage or interruption of water and sewage services.</p>	

**PROGRAMMATIC AGREEMENT**  
**Among**  
**THE NATIONAL PARK SERVICE**  
**And**  
**THE MARYLAND AND VIRGINIA**  
**STATE HISTORIC PRESERVATION OFFICERS**  
**Regarding**  
**IMPLEMENTATION OF THE WETLAND RESTORATION ACTION PLAN (WRAP)**  
**AT**  
**CHESAPEAKE & OHIO CANAL NATIONAL HISTORICAL PARK,**  
**MONOCACY NATIONAL BATTLEFIELD, HARPERS FERRY NATIONAL**  
**HISTORICAL PARK, AND CATOCTIN MOUNTAIN PARK**

**WHEREAS**, the Chesapeake & Ohio Canal National Historical Park, Monocacy National Battlefield, Harpers Ferry National Historical Park, and Catoctin Mountain Park are units of the National Park Service (NPS) within the National Capital Region (NCR) and charged to meet the directives of the NPS Organic Act of 1916 (P.L. 64-235, 39 Stat. 535) to "conserve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations," as it applies to the park units; and

**WHEREAS**, the NPS is developing a comprehensive Wetland Restoration Action to restore, enhance, and/or protect wetlands, waterways, and riparian habitats (collectively referred to as 'wetlands') at the four NCR parks when opportunities arise. The plan prioritizes areas and provides specific recommendations to restore, enhance, or protect individual wetland resources and deficiencies at the park units within the States of Maryland (MD), Virginia (VA), and West Virginia (WV), and the District of Columbia (DC) (the UNDERTAKING); and

**WHEREAS**, the NPS, in compliance with the National Environmental Policy Act of 1969, as amended (NEPA) (Public Law 91-190), its implementing regulations (40 CFR 1500-1508), and the Department of the Interior's NEPA regulations (43 CFR Part 46), has prepared an environmental assessment for the Wetland Restoration Action Plan. The assessment of potential impacts determined that ground disturbance or the introduction of non-historic features into the cultural landscape could have adverse effects on historic properties; and

**WHEREAS**, the NPS has determined that this project constitutes an undertaking subject to review under Section 106 of the National Historic Preservation Act (NHPA), as amended, 54 U.S.C. 306108 (formerly 16 USC § 470f), and *Protection of Historic Properties*, its implementing regulations, 36 CFR Part 800, herein referred to as Section 106; and

**WHEREAS**, all four NCR parks included in the Undertaking are historic properties listed in the National Register of Historic Places and the parks include a diversity of significant resources including historic buildings, structures, districts, objects, archeological sites, and cultural landscape elements, as well as the potential for additional resources that have not yet been identified; and

**WHEREAS**, the NPS has determined that implementation of this project may affect properties listed in or eligible for listing in the National Register of Historic Places (NRHP) and as yet unidentified archeological resources that may contribute to the significance of the park units, or



may be eligible for listing on an individual basis, and the NPS has consulted with the MD, VA, and WV State Historic Preservation Officers (SHPO), and the DC Historic Preservation Office (HPO) pursuant to 36 CFR Part 800.14(b)(1)(ii); and

**WHEREAS**, Monocacy National Battlefield (NB) is a designated National Historic Landmark (NHL) and as required under 54 USC 306107 (commonly known as Section 110(f) of the NHPA) and its implementing regulations (specifically 36 CFR §800.6 and §800.10), prior to the approval of any Federal undertaking that may directly and adversely affect any NHL, the head of the responsible Federal agency shall to the maximum extent possible undertake such planning and actions as may be necessary to minimize harm to the landmark. In accordance with the code and its implementing regulations, the NPS has notified the Advisory Council on Historic Preservation (ACHP) and NPS, NCR NHL Program (NPS-NHL; as the Secretary of the Interior's designee) of this consultation regarding the NHL property and has invited both parties to consult on the development of this agreement; and

**WHEREAS**, the NPS proposes to implement the project at a future date, unknown, and the NPS proposes to phase identification and evaluation of historic properties at the time of project implementation, pursuant to 36 CFR Part 800.4(b)(2); and

**WHEREAS**, the Superintendents of Chesapeake & Ohio Canal National Historical Park, Monocacy National Battlefield, Harpers Ferry National Historical Park, and Catoctin Mountain Park are Signatories to this PA because of their approval authority over the Undertaking; and

**WHEREAS**, the NPS has notified the ACHP of the potential adverse effect pursuant to 36 CFR Part 800.6(a)(1) and 36 CFR Part 800.14(b)(3) and has invited the ACHP to participate in consultation and the ACHP did not respond; and

**WHEREAS**, the NPS recognizes that, as Federal agency, they have a unique legal relationship with Federally-recognized Indian tribes (Tribes) as set forth in the Constitution of the United States, treaties, statutes, and court decisions, and that consultation with Tribes must, therefore, recognize the government-to-government relationship between the Federal government and Tribes; and

**WHEREAS**, the NPS has consulted with the following Tribes to solicit their potential interest in this project and has invited their participation in consultation on this Agreement: the Catawba Indian Nation, the Delaware Nation (Oklahoma), the Pamunkey Tribe; and

**WHEREAS**, the aforementioned tribes did not respond; and

**WHEREAS**, the NPS has solicited and considered the views of the public using its National Environmental Policy Act public involvement procedures pursuant to 40 CFR Part 1500.2(d) and 40 CFR Part 1506.6, and National Preservation Act notification 36 CFR 800.2 (d) (2);

**NOW, THEREFORE**, the NPS, the MD, VA, and WV SHPOs, and the DC HPO agree that should the NPS proceed with the Undertaking, the NPS will ensure that the following stipulations are implemented to satisfy the NPS's Section 106 responsibilities for all individual actions in order to take into account the effects of the UNDERTAKING on historic properties, and further agree that these stipulations shall govern the UNDERTAKING and all of its parts until this Programmatic Agreement expires or is terminated.

#### **STIPULATIONS**

The NPS shall ensure that the following measures are carried out:

- I. The NPS expects to pursue the UNDERTAKING over time as opportunities arise. The NPS will have met its obligations under this agreement if it fulfills the requirements listed herein for each individual application, independently of future applications.

**II. NPS REVIEW OF PROJECT ELEMENTS**

- A. The NPS will review each application as identified above to determine if it is eligible for the streamlined review process outlined in the 2008 PA, and will include review by the park's cultural resources management (CRM) advisor team.
- B. The NPS shall determine the area of potential effect (APE). The APE shall include all areas directly or indirectly affected by the application, including but not limited to staging areas, access roads and trails, and ground disturbing activities. Unless otherwise stated, references to the APE mean the specific APE for a given application of the Undertaking.
- C. Project elements that meet the criteria for streamlined review, found in Stipulation III.C of the 2008 PA, will require no further Section 106 review.
- D. If the criteria for streamlined review are not met, the NPS will consult with relevant SHPO and other consulting parties as appropriate. For projects located within the Monocacy NB NHL, NPS will notify the ACHP and the NCR NHL Program of any consultation regarding the NHL and will invite those two parties to consult if the project may result in adverse effects. Such consultation may include but not be limited to:
- Written correspondence and email
  - Phone and conference calls
  - Face-to-face meetings
  - Field visits
- E. Should the plans for an application that had previously been determined to qualify for streamlined review change in such a way to make it no longer eligible for such review, the NPS will consult with the MD and VA SHPOs, and other consulting parties, as relevant, in carrying out the terms of this agreement, in accordance with the consultation process outlined in 36 CFR Part 800.2 through 800.6. consult with the appropriate consulting parties on the revised plans according to Stipulation III below.

**III. CONSULTING PARTY REVIEW REQUIREMENTS**

- A. For those applications requiring consulting party review, the NPS shall provide at each design stage adequate project information, including, as appropriate, construction drawings and plans, photos, and background material. Construction plans will include types of equipment used, staging areas, equipment access, all ground disturbing activity, including tree and vegetation removal and use of trails and roadways, if known.
- B. The consulting parties will have a 30-calendar-day review period that begins upon receipt of the review package.

- C. Should no comments be received by the 30-day deadline, the park may proceed with any application for which it determines there will be no adverse effect.
- D. If application will have an adverse effect on historic properties, the NPS will include in the project information any measures to avoid or minimize the adverse effect, such as design alternatives or landscape treatment plans. Should avoidance or minimization prove not feasible, the NPS will work with the relevant SHPO and other consulting parties as appropriate to develop appropriate mitigation measures. In that event, potential mitigation goals could include data recovery, the creation of interpretive media devoted to the archeological history of the site, or public programs that focus on the history properties.

#### **IV. IDENTIFICATION, EVALUATION, AND TREATMENT OF HISTORIC PROPERTIES**

##### **A. Identification**

##### **a. Architectural and Cultural Landscape Resources**

1. The NPS shall ensure that an historic structure and/or cultural landscape survey will be conducted for sites within the project APE prior to implementation of applications in this Undertaking. If there are resources that have not been evaluated for NRHP eligibility at NPS park units in MD and VA for purposes of this agreement, the NPS will consult with the relevant SHPO to determine eligibility following the regulations outlined in 36 CFR Part 800.4(c). When necessary, NPS will complete a state Determination of Eligibility form for unevaluated resources.
2. For architectural resources located within an application's APE, the NPS will consult with the relevant SHPO to determine eligibility following the regulations outlined in 36 CFR Part 800.4(c). When necessary, NPS will complete a state request for a Determination of Eligibility consistent with the Secretary of interior's *Standards and Guidelines for Evaluation* and the relevant SHPO's survey guidelines.
3. For applications that may be located within cultural landscapes, the NPS may conduct a cultural landscape inventory (including larger contextual boundaries than the APE, as appropriate) in consultation with the relevant SHPO and other consulting parties to provide information on the contributing and non-contributing features (or character defining features) of the cultural landscape. The inventory will be consistent with the Secretary of Interior's *Guidelines for the Treatment of Historic Landscapes* and the relevant SHPO's survey guidelines.
4. If the NPS determines that the proposed application may alter the qualities that make an architectural resource, landscape or landscape feature significant, the NPS will prepare design alternatives and/or treatment plans to avoid, minimize, or mitigate the application's adverse effects for submission to the SHPO for review and approval prior to implementation. Mitigation measures may include applying appropriate treatment standards to minimize effect, documentation of historic properties, or other negotiated forms of mitigation

##### **b. Archeological Sites**

1. For each application involving ground disturbance, the NPS shall consult with the SHPO and other consulting parties, as appropriate, to review the previous archeological surveys of the area, if any, to determine if adequate information exists to assess the application's effects. If such information does not exist, the NPS will, in consultation with the SHPO and other consulting parties, as appropriate, develop an archeological survey plan for the APE. Prior to affecting any archeological site, the NPS shall evaluate its eligibility for the NRHP and will consult with the relevant SHPO and other consulting parties, as appropriate, to determine eligibility, as appropriate following the regulations outlined in 36 CFR Part 800.4(c).
2. If archeological sites are identified within the Project APE that are eligible for the NRHP, the NPS shall develop a plan for their avoidance, protection, or recovery of information in consultation with the SHPO and other consulting parties. The plan shall be submitted to the SHPO and other consulting parties for review and comment prior to implementation.
3. All data recovery plans prepared under the terms of this Agreement shall include the following elements:
  1. Information on the archeological property or properties where data recovery is to be carried out, and the context in which such properties are eligible for the National Register;
  2. Information on any property, properties, or portions of properties that will be destroyed without data recovery;
  3. Discussion of the research questions to be addressed through the data recovery with an explanation/ justification of their relevance and importance;
  4. Description of the recovery methods to be used, with an explanation of their pertinence to the research questions; and
  5. Information on arrangements for any regular progress reports or meetings to keep the SHPO and other consulting parties up to date on the course of the work. The plan should contain the expected timetable for excavation, analysis and preparation of the final report.
  6. A plan for public dissemination of the information.
4. NPS shall ensure that the approved treatment plan or data recovery plan is implemented prior to those project activities that could affect the archeological site(s).
5. NPS shall notify the relevant SHPO and the other consulting parties, as appropriate, in writing once the fieldwork portion of the treatment plan or data recovery plan is complete and provide a brief management summary so that a site visit may be scheduled, if requested. Project activities may proceed following this notification while the technical report is in preparation. The NPS may proceed with implementation of the application in the APE and within the boundary of the affected archeological site(s) while the technical report is in preparation.

## **V. REPORTING REQUIREMENTS**

- A. All cultural resource work performed under the terms of this Agreement shall be carried out by or under the direct supervision of a professional who meets the Secretary of the Interior's Professional Qualifications Standards (48 FR 44739) in the appropriate discipline.

- B. All archeological studies conducted pursuant to this Agreement shall be consistent with the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation (48 FR 44716-44742, September 1983), the ACHP's Section 106 Archeology Guidance (June 2007) and the relevant SHPO's archeological survey guidelines. All NRHP evaluations will meet the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation (48 FR 44716-44742, September 1983), and conform with the National Register guidelines. Cultural Landscape evaluation will conform with the Secretary of Interior's Standards for the Treatment of Historic Properties (36 CFR Part 68) with guidelines for the treatment of cultural landscapes.
- C. Annual Reports. By January 31 of each year during which this agreement remains in effect, the NPS shall update the SHPOs and the other consulting parties on the actions taken to implement the terms of this agreement. The update will take the form of a Report submitted on an annual basis. The annual Reports shall include information regarding activities undertaken pursuant to this Agreement and information on the overall status of the Project.
- D. Upon the completion of all stipulations to this Agreement, the NPS shall circulate to the SHPOs and the other consulting parties a signed memorandum documenting that the NPS has fulfilled all its responsibilities under this agreement.

## **VI. CURATION**

Within thirty (30) days of the NPS' approval of the final technical report arising from an application, the NPS shall deposit all archeological materials and appropriate field and research notes, maps, drawing and photographic records collected as a result of archeological investigations arising from this Agreement (with the exception of human skeletal remains and associated funerary objects, as provided for by the Native American Graves Protection and Repatriation Act (NAGPRA) for permanent curation at the NPS/NCR Museum Resource Center in Landover, Maryland. The NPS shall ensure that all records and materials are curated in accordance with 36 CFR Part 79 and the NPS Museum Handbook. All such items shall be made available to educational institutions and individual scholars for appropriate exhibit and/or research under the operating policies of the NPS.

## **VII. POST REVIEW DISCOVERIES**

- A. The NPS shall ensure that all construction documents associated with an application include the following provisions:
  - 1. If previously unidentified historic properties or unanticipated effects to historic properties are discovered during restoration, enhancement, or protection activities, the contractor shall immediately halt all activity within a one hundred (100) foot radius of the discovery, notify NPS of the discovery and implement interim measures to protect the discovery from looting and vandalism.
  - 2. Immediately upon receipt of the notification required in Stipulation VII.A.1 of this document, the NPS shall:
    - (a) inspect the application site to determine the extent of the discovery and ensure that activities have halted;
    - (b) clearly mark the area of the discovery;

- (c) implement additional measures, as appropriate, to protect the discovery from looting and vandalism; and
  - (d) have a professional archeologist inspect the application site to determine the extent of the discovery and provide recommendations regarding its NRHP eligibility and treatment; and
  - (e) notify the SHPOs and other consulting parties of the discovery describing the measures that have been implemented to comply with Stipulations VII.A.1 and A.2 of this document.
3. Within forty-eight (48) hours of receipt of the notification described in Stipulation VII.A.2 (e) of this document, the NPS shall provide the relevant SHPO and other consulting parties, as appropriate, with its assessment of the NRHP eligibility of the discovery and the measures it proposes to take to resolve adverse effects. In making its official evaluation, the NPS, in consultation with the relevant SHPO and other consulting parties, as appropriate, may assume the discovery to be NRHP eligible for the purposes of Section 106 pursuant to 36 CFR Part 800.13(c). The SHPOs and other consulting parties shall respond within forty-eight (48) hours of receipt.
  4. The NPS, which shall take into account the relevant SHPO's and other consulting parties' recommendations on eligibility and treatment of the discovery, shall ensure that appropriate actions are carried out and provide the SHPOs, HPO and the other consulting parties with a report on these actions when they have been implemented.
  5. The application activities may proceed in the area of the discovery when the NPS has determined that implementation of the actions undertaken to address the discovery pursuant to Stipulation VII.A are complete.

#### **VIII. HUMAN REMAINS**

- A. In the unlikely event that human remains are uncovered during the undertaking, the NPS shall treat all human remains in a manner consistent with the ACHP's "Policy Statement Regarding Treatment of Burial Sites, Human Remains and Funerary Objects" (February 23, 2007) or ACHP policy in effect at the time remains and funerary artifacts are handled.
  1. Should any Native American burial sites, human remains, funerary objects, sacred objects, and/or objects of cultural patrimony be encountered, the NPS shall ensure they are treated with appropriate respect and according to federal law, including but not limited to the NAGPRA (PL 101-601). If the remains are determined not to be of Native American origin, the NPS shall consult with the relevant SHPO and other consulting parties as appropriate on the appropriate treatment.
  2. The NPS shall use reasonable efforts to ensure that the general public is excluded from viewing any burial site or associated funerary artifacts. The consulting parties to this agreement shall release no photographs of any burial site or associated funerary artifacts to the press or general public. The NPS shall notify the appropriate tribes when burials, human skeletal remains, or funerary artifacts are encountered on the project.

#### **IX. DISPUTE RESOLUTION**

- A. Should any consulting party object in writing to the NPS regarding any action carried out or proposed with respect to this agreement or the implementation of its terms, the NPS shall

consult with the objecting party in an effort to resolve the objection. If, after initiating such consultation, the NPS determines that the objection cannot be resolved, the NPS shall:

1. Forward all documentation relevant to the dispute, including the NPS' proposed resolution, to the ACHP. The ACHP shall provide the NPS with its advice on the resolution of the objection within thirty (30) days of receiving adequate documentation. Prior to reaching a final decision on the dispute, the NPS shall prepare a written response that takes into account any timely advice or comments regarding the dispute from the ACHP, consulting parties to this Agreement, and provide them with a copy of this written response. The NPS will then proceed according to its final decision.
  2. If the ACHP does not provide its advice regarding the dispute within the thirty (30) day time period, the NPS may make a final decision on the dispute and proceed accordingly. Prior to reaching such a final decision, the NPS shall prepare a written response that takes into account any timely comments regarding the dispute from the consulting parties to this Agreement, and provide them and the ACHP with a copy of such written response.
- B. The NPS' responsibility to carry out all actions under this agreement that are not the subject of the objection remains unchanged.
- C. At any time during implementation of the measures stipulated in this agreement, should an objection pertaining to this agreement or the effect of the Project on historic properties be raised by a member of the public, the NPS shall notify the other consulting parties, and attempt to resolve the objection. If the NPS determines that the objection cannot be resolved, the NPS shall comply with Stipulations IX.A and IX.B of this document.

#### **X. AMENDMENT**

Any signatory to this agreement may propose to the NPS that it be amended or modified, whereupon NPS shall consult with the consulting parties to consider such an amendment. This agreement may be amended when such an amendment is agreed to in writing by all signatories. The amendment will be effective on the date it is signed by all of the signatories and filed with the ACHP.

#### **XI. TERMINATION**

- A. If any signatory determines that the terms of this agreement will not or cannot be carried out, that party shall immediately consult with the other signatories and concurring parties to seek an amendment in accordance with Stipulation X of this document. If within thirty (30) days an amendment cannot be reached, any signatory may terminate the agreement upon written notification to the other signatories and concurring parties.
- B. Once the agreement is terminated, and prior to work continuing on the project, the NPS must either (a) execute another Programmatic Agreement or a Memorandum of Agreement pursuant to 36 CFR Part 800.14(b) or 36 CFR Part 800.6, respectively, or (b) request, take into account, and respond to the comments of the ACHP under 36 CFR Part 800.7. The NPS shall notify the signatories as to the course of action it will pursue.
- C. In the event that this agreement is terminated, the NPS shall submit to the SHPOs and the other consulting parties a technical report with the results of any surveys or treatment measures that have been implemented to date, up to and including the date of termination.



## **XII. DURATION OF AGREEMENT**

This agreement shall continue in full force and effect until ten (10) years after the date of the last signature of a signatory party. At any time in the six (6)-month period prior to such date, the NPS may request the SHPOs consider an extension or modification of this agreement. No extension to modification shall be effective unless all signature parties to this agreement have agreed with it in writing.

Execution of this agreement by the NPS, the SHPOs, and its submissions to the ACHP in accordance with 36 CFR 800.6(b) (1) (iv) shall, pursuant to 36 CFR 800.6 (c), be considered to be an agreement with the ACHP for the purposes of Section 110(1) of the NHPA. Execution and submission of this agreement and implementation of its terms are evidence that the NPS has afforded the ACHP an opportunity to comment on the project and its effects on historic properties, and that the NPS has taken into account the effects of the project on historic properties.

**Signatories:**

**NATIONAL PARK SERVICE: MONOCACY NATIONAL BATTLEFIELD**



Date: June 13, 2018

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Chris Stubbs  
Superintendent  
Monocacy National Battlefield

**NATIONAL PARK SERVICE: CHESAPEAKE & OHIO CANAL NATIONAL  
HISTORICAL PARK**



Kevin Brandt  
Superintendent

Chesapeake & Ohio Canal National Historical Park

Date: 3/8/18

**NATIONAL PARK SERVICE: CATOCTIN MOUNTAIN PARK**



Date: 3/1/18

Rick Slade  
Superintendent  
Catoctin Mountain Park

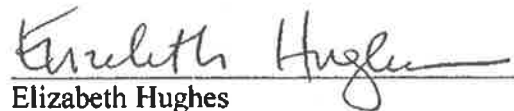
**NATIONAL PARK SERVICE: HARPERS FERRY NATIONAL HISTORICAL PARK**



Date: 14 June 2018

Tyron Brandyburg  
Superintendent  
Harpers Ferry National Historical Park

**MARYLAND STATE HISTORIC PRESERVATION OFFICER:**



Date: 2-22-2018

Elizabeth Hughes  
Maryland State Historic Preservation Officer

**VIRGINIA STATE HISTORIC PRESERVATION OFFICER:**

  
Julie V. Langan  
Virginia State Historic Preservation Officer

Date: 2-12-18