



## FINDING OF NO SIGNIFICANT IMPACT

### **Restoration of Canal Operations at Hancock MP 122.12 to 124.59 Chesapeake and Ohio National Historic Park**

The National Park Service (NPS) is proposing to rehabilitate and restore historic structures of the Chesapeake and Ohio Canal National Historical Park (C&O Canal NHP) at Hancock, Maryland. The project area begins at Mile 122.12 and ends at Mile 124.59 of the towpath, along the Potomac River. This area includes Locks 51 and 52, the Bowles (Little) Farm, the Tonoloway Creek Aqueduct, canal prism, canal boat basin, parking area at Little Tonoloway Picnic Area, the park's maintenance compound, and ruins of the Little Warehouse and stone wall. The project area is approximately 84 acres and follows the C&O Canal NHP towpath for approximately 2.5 miles. In addition, the project area includes an 11.42 acre site located at Mile 43 within the park. This site includes the Canal Farm ditch, an artificially drained wetland that will be used for wetland mitigation for this project.

The purpose of the project is to expand visitor opportunities for learning about the C&O Canal NHP and canal operations in the late 19th century. Physical improvements to the canal's historic structures and development of more extensive interpretive/educational opportunities would help the visitor more fully understand, appreciate, and enjoy the canal and its heritage. The project addresses the potential for development and rehabilitation of several structures in and around the park's property, including the Bowles Property, Locks 51 and 52, the canal prism from Mile 122.12 to 124.59, the Tonoloway Aqueduct, and the parking area at Little Tonoloway Picnic Area.

The NPS completed an Environmental Assessment (EA) that provides an analysis of the environmental consequences of the alternatives considered for project. This EA was prepared in accordance with the National Environmental Policy Act of 1969, as amended (NEPA), its implementing regulations by the Council on Environmental Quality (CEQ) (40 CFR 1500-1508), and Director's Order 12 (DO-12), Conservation Planning, Environmental Impact Analysis and Decision-making, and accompanying Handbook. NPS will continue compliance with Section 106 of the National Historic Preservation Act of 1966 (NHPA) with the Maryland Historical Trust (Maryland's State Historic Preservation Office [MDSHPO]) and other parties under the terms of the 2008 Service-wide Programmatic Agreement (PA) (NPS 2008b) or through the standard review process under 36 CFR 800 as individual undertakings are identified for funding, design, and implementation (see appendix C).

### **NPS SELECTED ALTERNATIVE**

Based on the analysis presented in the EA, the NPS has selected alternative 2 (the NPS Preferred Alternative) for implementation. The selected alternative will include a complete rewatering of the canal prism in the Hancock area between the Bowles Farm and the Tonoloway Boat Ramp area of the park (Miles 122.12-124.59). It will provide the highest access to and interpretation of the canal of the alternatives analyzed. The rewatering of the canal will enable replica canal boat interpretive programming, which will demonstrate the relationship between the Bowles Farm, the town of Hancock, and the C & O Canal to the visiting public.

#### **Selected Alternative – Specific Elements**

The existing rewatered section (Mile 124.10 – 124.59) will be extended downstream to Lock 51 (Mile 122.12). The canal prism will be restored to historic specifications, and a clay liner will be installed to provide a waterproof lining. Trees within the canal prism and on the towpath embankment abutting the canal prism will be removed. No clearing will occur along the river-side embankment. Locks 51 and 52 will be made functional with repointing, selective repairs, and installation of gates. Bypass flumes and waste weirs will also be made operational. Existing waste weir #22 and culvert #174 will be restored to

allow for the discharge of water into an existing drainage that leads to the Potomac River. Tonoloway Aqueduct will also be restored to carry the canal across the Tonoloway Creek. The towpath and parapet walls, as well as the barrel vault, will be preserved to provide sound stability. The NPS will work with the Town of Hancock to improve the water intake and pump facility, if necessary, to supply sufficient water to the canal operations from the Potomac River. A new maintenance access road downstream of Lock 51 will be constructed to replace the existing access road.

Visitor experience improvements will include the addition of a pedestrian bridge located at the Bowles House/Lock 52 area to connect the towpath to the Visitor Center. The bridge will also be designed to accommodate boat operations. NPS or concession-run boat operation will provide interpretive programs and connect the Bowles House to the Little Tonoloway area. Boat docks located at the Bowles House and Little Tonoloway will be constructed to accommodate this operation. A kiosk/operational booth will be constructed at Little Tonoloway. Finally, a walk-in campground will be established at the former maintenance area.

### **Elements Common to All Action Alternatives that are included in Alternative 2**

Under all action alternatives, the rehabilitation, preservation or improvement of several buildings and sites will occur, including portions of the Bowles House, and the parking area at Little Tonoloway Picnic Area. The Bank Barn ruins will be stabilized and preserved and the site will be restored to resemble a 1870s farm setting. Vegetation will be cleared to restore the ruins of the Little Warehouse and stone wall. The park maintenance facility will be relocated outside of the floodplain. Existing maintenance structures will be removed. The new maintenance facility will also house the law enforcement offices. Access roads and pedestrian access will be improved, and the visitor parking area at Bowles Farm will be expanded into the area where the maintenance facility was previously located.

### **Mitigation**

A variety of mitigation measures will be instituted as the actions are taken to implement the selected alternative. The NPS will conduct 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 following are mitigation measures that will be implemented to minimize impacts on specific resources:

#### ***Soils***

- Permeable surfaces will be used for parking lots to reduce stormwater runoff.
- BMPs, such as silt fencing, will be used to prevent and control soil erosion and sedimentation during construction.
- Soils disturbed within the proposed construction areas will be actively reseeded to stabilize the soil, repair compaction, and/or improve soil productivity.
- Silt will be removed from the canal prism and used at the wetland compensation site, within the park, or disposed of at an approved site, after any archeological survey determined necessary is accomplished.
- Construction activities will adhere to an erosion and sediment control plan completed in accordance with the *Maryland Erosion and Sediment Control Guidelines for State and Federal Projects*.

#### ***Submerged Aquatic Vegetation and Wetlands***

- Water intake construction in the Potomac River will employ the use of a portable dewatering device to protect the downstream waterways from sediment and silt impacts.

- The river bottom will be restored to its preexisting contours following removal of the dewatering device.
- A silt curtain will be installed downstream of the work area to trap sediment.
- *Maryland's Waterway Construction Guidelines* (MDE 2000) will be followed as applicable.
- Work on the aqueduct structure will be done in accordance with standard practices for working on bridges, which includes using nets to shield the waterways from falling grout or paint, and preparing and following a plan consistent with *Maryland's Waterway Construction Guidelines* (MDE 2000).
- Compensation for the loss of 3.05 acres of wetlands under alternative 2 will include the restoration of approximately 4.6 acres of a former forested wetland habitat at the park's Canal Farm, located within the park near Mile 43, Frederick County, Maryland near the confluence of the Monocacy and Potomac Rivers. Restoration of the natural hydrologic condition of a wetland bisected by a drainage ditch will include filling the existing ditch to its natural elevation, possibly incorporating check dams, and armoring the downstream edge of the ditch to prevent head cutting. The area will then be revegetated with native wetland plant species. Based on a function and value assessment for the impacted and compensation sites, a wetland functional replacement ratio of 1:1 was determined to be appropriate for meeting NPS Director's Order 77-1 and the implementing procedures described in NPS Procedural Manual 77-1: *Wetland Protection*. The NPS will obtain a joint MDE/USACE permit for the alteration of any floodplain, waterway, tidal, or nontidal wetland. Wetland mitigation required to meet permit requirements will be determined during the permitting process, and prior to initiating work (see attachment B).

#### ***Vegetation***

- BMPs, such as silt fencing, will be used to prevent and control soil erosion and sedimentation during construction.
- Construction activities will adhere to an approved erosion and sediment control plan.
- Disturbed areas will be reseeded to stabilize soil, initiate new vegetation growth, and prevent the spread of invasive plant species.
- Compensation for loss of trees removed by construction will include the planting of trees on up to 10 acres of riparian forest buffer within the park, along the Potomac River, with the intent of exceeding the acreage of tree loss in the park as a result of implementing the selected alternative. Trees will be planted at a density of 400 trees per acre.

#### ***Special status Species***

- Construction activities will be limited to times when nesting and breeding of wood turtle are not occurring.
- If wood turtles are identified during the preconstruction surveys, it is possible they may be collected and relocated prior to or during construction. The use of barrier fencing along streams and the canal could also be implemented during construction activities to avoid/reduce impacts on special status wildlife species.
- Special status plant species will be avoided if possible during construction and vegetation removal activities.
- Preconstruction surveys will be conducted for presence of special status species including terrestrial plants, terrestrial wildlife, and aquatic mussels. Surveys will also document the presence of special status species' habitats and nests. This is particularly important because construction will not occur for some time following the completion of the NEPA process and special status species could begin using habitats. If special status species, nests, or habitats are

found, then consultation will be initiated and conservation and protection actions and mitigation will be developed.

- Although no effect on the Atlantic spike and brookfloater is expected, as an additional mitigation measure, preconstruction surveys for presence of special status mussel species will be completed.
- If special status mussel species are located within the project area, the potential impacts and additional mitigation measures will be evaluated in consultation with state and federal regulatory agencies.
- Prior to construction, during design review, the NPS will determine whether the Section 7 consultation is still valid or needs to be updated based on either new species listings or design changes. Additional consultation with USFWS and or MDNR will be done as required. If special status plant or wildlife populations cannot be avoided, consultations with appropriate federal and state agencies will be required prior to construction. These consultations will determine if appropriate mitigation measures for any populations affected by the proposed project could be found. For special status plant populations, appropriate measures could include the creation of offsite populations through seed collection or transplanting, preservation, and enhancement of existing populations, or restoration or creation of suitable habitat in sufficient quantities to compensate for the impact. Translocation includes digging up plants and moving them to appropriate portions of the corridor that will not be affected by the proposed construction activities. For special status wildlife species, appropriate measures will include translocation of individuals to appropriate habitat.

#### ***Visitor Use***

- All construction activities will be conducted during daylight hours to avoid noise impacts on park neighbors.
- Construction will be avoided during peak visitor use periods (i.e., weekends, holidays).
- A safety plan will be developed prior to initiation of construction to ensure the safety of park visitors, workers, and park personnel.

#### ***Cultural Resources***

- Additional archaeological surveys will be performed as necessary to inform project design. Phase II surveys will be conducted on Sites 18WA590 and 18WA591 to evaluate the extent and National Register eligibility of these sites, so that they could be avoided during construction. All work on historic structures and landscapes will be designed to meet the *Secretary of the Interior's Standards for Historic Preservation* (36 CFR 68 as amended by the NPS).
- Construction and staging areas will be evaluated for archeological sites prior to implementing the project. Construction matting, fencing, or other appropriate means to protect archeological sites within the work area will be implemented.
- If during construction previously unidentified archeological resources are discovered, all work in the immediate vicinity of the discovery will be halted and the NPS will address the discovery and unanticipated effects in accordance with 36 CFR §800.13(b).
- NPS shall ensure that all construction contracts contain a stipulation that requires that construction or excavation activities stop in the event that archeological deposits are encountered during any construction or excavation the park Cultural Resources Program manager will be notified immediately.
- If human remains or items subject to the Native American Graves Protection and Repatriation Act of 1990 (NAGPRA) are discovered during this project, NPS will proceed in accordance with



Federal policy concerning the treatment of human remains, NAGPRA, and 36 CFR §800.13(b), as applicable.

## **OTHER ALTERNATIVES CONSIDERED**

In addition to the NPS selected alternative described above, the EA analyzed a no-action alternative and two other action alternatives, Alternative 3 and 4.

### **Alternative 1 (No-action Alternative)**

Under the no-action alternative, canal operations and Hancock would continue to be maintained in their current conditions. The Tonoloway Aqueduct would remain partially collapsed and Locks 51 and 52 would remain non-functioning. In addition, the canal would remain vegetated and unwatered between Lock 51 (Mile 122.12) and the existing rewatered section (Mile 124.10-124.59). Current conditions and operations at the Hancock Visitor Center, Bowles House, and maintenance compound would also remain the same. The no-action alternative did not meet project objectives to expand visitor interpretation and access and rehabilitate historic assets and therefore was not selected.

### **Alternative 3**

Alternative 3 includes a partial rewatering of the canal, and a moderate level of visitor interpretation. An additional portion of the canal between Lock 51 and upstream of the Tonoloway Aqueduct would be rewatered, but the portion between the existing rewatered portion of the canal and the newly restored portion would remain unwatered and wooded. In the newly restored portion, locks, bypass flumes and waste weirs would be made operational, and a new water intake in the Potomac River would be installed for the Lock 51 and 52 portion of the canal. The Tonoloway Aqueduct would be restored under alternative 3. A cross over pedestrian bridge would be built at the Bowles House/Lock 52 Area, and a replica of a canal barge would be located in the Bowles House vicinity as an interpretive exhibit. To show the succession of natural resources over time, an interpretive wayside would be constructed. A walk-in campground would be established in a portion of the footprint of the existing maintenance yard. This alternative would also include the construction of a new maintenance access road downstream of Lock 51. Alternative 3 also includes the elements common to all action alternatives (described under the selected alternative above). Alternative 3 is the environmentally preferable alternative, but does not provide the same level of access and visitor experience as the selected alternative. The full rewater of the canal was deemed to be an important experience that alternative 3 did not provide. Therefore alternative 3 was not selected.

### **Alternative 4**

Alternative 4 includes minimal preservation of canal features and minimal improvements to visitor interpretation. The existing canal prism between the Tonoloway Aqueduct and Lock 51 would remain unwatered and mowed. No additional rewatering of the canal would occur. Locks 51 and 52 would receive minimal preservation stabilization. No changes to visitor experience would occur, and no new access roads would be constructed. A new picnic area would be established in a portion of the footprint of the existing maintenance yard. Alternative 4 does include the elements common to all action alternatives (described under the selected alternative above). Alternative 4 was not selected because it provided the least improvement to the visitor experience and enhancement of the important historic and cultural context of the area.

## **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 DOI policies contained in the *Departmental Manual* (516 Departmental Manual 4.10) and the *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 Departmental Manual 4.10). In their *Forty Most Asked Questions*, CEQ states that the environmentally preferable alternative is “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” (CEQ 1981).

After completing the environmental analysis, the NPS identified alternative 3 as the environmentally preferable alternative in this EA because it best meets the definition established by the CEQ. Alternative 3 best protects and enhances the historic and cultural resources of the Hancock area while minimizing disruption to the natural environment to meet the project purpose and need. Alternative 3 provides cultural resource benefits and includes only negligible to minor adverse impacts on the natural environment by minimizing areas of disturbance and applying appropriate mitigation where needed. Specifically, even though alternative 3 only proposes to partially rewater the canal, it does not disturb a special status plant species in the canal (while alternative 2 does impact that plant) and it only minimally impacts wetlands (less than 0.10 acre of impacts) while still providing benefits to enhance the important historic and cultural context of the area. In addition, alternative 3 only has 0.4 miles of impacts associated with canal excavation while alternative 2 has 1.5 miles of impacts associated with canal excavation. Alternative 4 and the no action alternative do not include as much construction nor as many impacts on soils, wetlands, and special status species but they also do not provide the most benefits to enhance the important historic and cultural context of the area.

## **WHY THE NPS SELECTED ALTERNATIVE WILL NOT HAVE A SIGNIFICANT EFFECT ON THE HUMAN ENVIRONMENT**

As defined in 40 CFR Section 1508.27, the significance of an impact is determined by examining the following criteria:

***Impacts that may have both beneficial and adverse aspects and which on balance may be beneficial, but that may still have significant adverse impacts, which require analysis in an Environmental Impact Statement (EIS):*** Soils, vegetation, floodplains, wetlands, special status species, historic structures and districts, archeological resources, cultural landscapes, transportation, visitor use and experience, socioeconomics, and park operations will experience both beneficial and/or adverse impacts as a result of implementing the selected alternative; however, no significant impacts were identified that will require analysis in an environmental impact statement.

There will be minor adverse impacts on soils, floodplains and special status species (common hoptree, Short's sedge, wood turtle) from construction activities and infrastructure improvements. Beneficial impacts will result from the restoration of the Canal Farm restoration site and removal of the maintenance area from the floodplain. Most construction activity will result in negligible impacts to vegetation in areas that have been previously disturbed and are very small in size. Restoring and rewatering the canal prism will result in moderate adverse impacts to vegetation due to the removal of understory and shrub species as well as some mature canopy trees. However, compensation for this loss will occur at the restoration site. Less than 0.10 acres of shoreline wetland and submerged aquatic vegetation (SAV) will be impacted during construction of a new water intake structure. Approximately 3.05 acres of forested wetlands will be converted to open water wetland which will be a moderate adverse impact. However, wetland compensation will include the restoration of 4.6 acres of forested wetland habitat at the park's Canal Farm site, a long-term beneficial effect.

Impacts from the rehabilitation, restoration and active interpretation of historic canal operations will have overall long-term beneficial impacts on historic structures and districts as well as cultural landscapes. Some minor adverse impacts to these resources and possibly archeological resources will result from construction and infrastructure improvements, however, the park intends to avoid adverse effects under section 106 of the National Historic Preservation Act by meeting the Secretary's Standards and designing projects to avoid archeological sites.

Construction will result in short-term minor adverse effects on visitor use and experience due to the temporary disruption and noise associated with the implementation of the restoration but the final outcome will provide long-term benefits because of the expansion of interpretive opportunities available to visitors as well as improved visitor amenities.

Implementation of the selected alternative will result in short-term minor adverse impacts and long-term moderate adverse impacts to park operations and management due to the additional staffing needed to support the operations and maintenance of the expanded and improved facilities. It is anticipated that improvements at Hancock will result in long-term localized economic benefits from increased visitation.

***Degree of effect on public health or safety:*** During construction activities, visitors of the park would be detoured around the construction area. Improvements to the area would also decrease the risk for future injuries to occur. The effects on safety are expected to be minor.

***Unique characteristics of the geographic area such as proximity to historic or cultural resources, parklands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas:*** No prime farmlands, wild and scenic rivers, or ecologically critical areas are located within the project area. The C&O Canal is listed on the National Register of Historic Places as a historic district. As a historic district the C&O Canal contains numerous individual structures contributing to its historical significance such as the canal prism and towpath, and associated locks, flumes, weirs, culverts, Great Tonoloway Creek aqueduct, and multiple structures. Potential impacts of the restoration of canal operations on both historic districts and their contributing structures are analyzed in this EA and impacts overall are long-term and beneficial.

Less than 0.10 acres of shoreline wetland and submerged aquatic vegetation (SAV) will be impacted during construction of a new water intake structure. SAV is expected to reestablish naturally in all areas except where the permanent pipe structure and filter are placed. Preconstruction surveys will be conducted for presence of aquatic mussels. Rewatering of the canal will convert 3.05 acres of forested wetlands to open water wetland resulting in a reduction in the abundance and diversity of wetland vegetation. Overall, the wetland impacts as a result of rewatering the canal and replacing the existing water intake will result in a long-term moderate adverse impact. Compensation for the loss of wetlands will include the restoration of 4.6 acres of forested wetland habitat at the park's Canal Farm, a long-term beneficial effect (NPS 2002)(see attachment B).

***Degree to which effects on the quality of the human environment are likely to be highly controversial:*** No highly controversial effects in terms of scientific uncertainties as a result of the selected alternative were identified during the preparation of the EA or by the public during the public comment period.

***Degree to which the possible effects on the quality of the human environment are highly uncertain or involve unique or unknown risks:*** No highly uncertain, unique, or unknown risks were identified during preparation of the EA or the public and agency review period.

***Degree to which the selected alternative may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration:*** The NPS selected alternative neither establishes NPS precedent for future actions with significant effects nor represents a decision in principle about a future consideration.

***Whether the selected alternative is related to other actions with individually insignificant but cumulatively significant impacts:*** As described in Chapter 4 of the EA, cumulative impacts were determined by combining the impacts of the NPS selected alternative with other past, present and reasonably foreseeable future actions. Detailed analysis of the selected alternative in relation to cumulative impact topics concluded that there will be no significant or major impacts to the biological, physical, cultural or social environment.

Short- and long-term minor adverse impacts will occur to soils as a result of the selected alternative due to construction-related and ground-disturbing activities (11.3 acres of soil impacts from canal activities) that will result in soil disturbance. To minimize the loss of soil that is excavated, the material will be used at the wetland restoration site at the Canal Farm if feasible or elsewhere in the park. Beneficial impacts will occur to the Canal Farm ditch from the restoration. When the impacts on soils as a result of the selected alternative are combined with other present and reasonably foreseeable projects, long-term minor adverse cumulative impacts are expected to soils.

Under the selected alternative, there will be a short-term minor adverse impact on floodplains during construction activities. Following construction, both long-term minor adverse impacts and beneficial impacts on the floodplain will occur. There will be long-term beneficial impacts on the floodplain from the restoration of the Canal Farm ditch. Both short-term and long-term beneficial and minor adverse cumulative impacts will occur.

The wetland impacts as a result of rewatering the canal and updating the existing water intake, including the conversion of wetlands from palustrine to open water, will result in a long-term moderate adverse impact. Wetland impacts within the Canal Farm ditch area will be beneficial from the restoration proposed. It is estimated that 4.6 acres of wetlands will be restored at the Canal Farm ditch wetland mitigation site, thus wetland compensation for this project will occur at a greater than 1:1 ratio. When the long-term moderate adverse impacts on wetlands as a result of the selected alternative are combined with other present and reasonably foreseeable projects in the project area, long-term moderate adverse cumulative impacts are expected.

Long-term moderate adverse impacts will occur to vegetation as a result of the selected alternative (2.5 acres of vegetation removed, including impacts on a special status plant species) due to ground-disturbing activities that will result in vegetation removal. Beneficial impacts from the addition of native wetland species at the Canal Farm ditch will occur. When the long-term moderate adverse impacts on vegetation as a result of alternative 2 are combined with other present and reasonably foreseeable projects, long-term moderate adverse cumulative impacts are expected.

There are three known special status plant and wildlife species that will be affected as a result of the selected alternative due to restoring and rewatering the canal. The three special status species that utilize habitat within and adjacent to the canal include the state watchlist plant species common hoptree, the state endangered plant species Short's sedge, and the wood turtle. Impacts to these species due to the rewatering of the canal will be long-term minor and adverse. A preconstruction survey will be completed prior to restoration efforts at the Canal Farm ditch to determine if species are present. When the long-term minor adverse impact on special status species as a result of the selected alternative are combined with other present and reasonably foreseeable projects in the project area, long-term minor adverse cumulative impacts are expected.

Preservation and stabilization of the Bank Barn and restoration of the Bowles House and cultural landscape will have long-term beneficial impacts, as these actions will result in stabilization of historic structures and making their setting consistent with their historic appearance and function. Restoration and rewatering of the canal will also have long-term beneficial impacts by restoring the canal to its historic appearance and condition. Construction of a walk-in campground within the location of the current maintenance facility, improvement to the access road, construction of docks, and the replacement of the non-historic bridge crossing the canal will all have negligible or no impacts. Construction of a new maintenance access road with dikes and pipes will have a minor adverse impact. Indirect impacts on known historic structures and the C&O Canal historic district will be negligible to beneficial over the long term. Beneficial impacts will enable visitors to understand the historic operation of the canal, and use/experience it in ways that are compatible with its historic function. Cumulative impacts to historic structures and districts are expected to be beneficial.



The selected alternative has the potential to have negligible to minor adverse impacts to archeological resources at Hancock, particularly Sites 18WA590 and 18WA591, which lie in the area of the Bowles Property and Tonoloway Picnic Area, respectively, and which have not yet been evaluated for the National Register. Cumulative impacts to archeological resources will be negligible.

Impacts to cultural landscapes under the selected alternative will be a combination of long-term beneficial and negligible to minor adverse impacts, with adverse impacts coming primarily through the addition of new features to the landscape and short-term adverse impacts coming from construction equipment and fencing in the view shed. Taking into account other projects in the region, the cumulative impacts on the cultural landscape will be beneficial.

Short-term, beneficial impacts on socioeconomics will occur from the creation of temporary jobs during the construction process. There will likely be an increase in visitation at the park, which will have long-term beneficial impacts on the local economy. Additionally, the movement of the maintenance division into a commercially available space will have beneficial impacts. When the long-term beneficial impacts on socioeconomics as a result of the selected alternative are combined with other present and reasonably foreseeable projects, long-term beneficial cumulative impacts to socioeconomics are expected.

Short-term minor adverse impacts on transportation will occur as a result of increased traffic on Route 144. Additional short-term minor adverse impacts will occur under the selected alternative at the Canal Farm ditch restoration site. Overall, there are long-term beneficial transportation impacts as a result of alternative. When the long-term beneficial impacts on transportation as a result of the selected alternative are combined with other present and reasonably foreseeable projects in the project area, long-term negligible adverse cumulative impacts are expected.

Short-term minor adverse impacts on visitor use and experience will occur during the construction phase of the project in the Hancock area and the Canal Farm ditch restoration area. Following construction, there will be a long-term beneficial impact on visitor experience and recreational activities. The cumulative impacts from the selected alternative and other projects in the area will also result in beneficial impacts.

Short-term minor adverse impacts on park operations will occur during construction activities. Overall, the selected alternative will result in long-term moderate adverse impacts on park operations and management due to the increase in staffing needs to support the operation of expanded visitor services. When the long-term moderate adverse impacts on park operations as a result of the selected alternative are combined with other present and reasonably foreseeable projects, minor adverse cumulative impacts are expected.

***Degree to which the selected alternative may adversely affect districts, sites, highways, structures, or objects listed on the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources:*** Compliance with section 106 of the National Historic Preservation Act was conducted separately, but concurrently, to the EA process. The EA was provided to the Maryland State Historic Preservation Officer (SHPO) with a draft programmatic agreement (PA) that would cover the design and implementation process. Through consultation with the SHPO and the Advisory Council on Historic Preservation (ACHP), it was determined that a PA would not be necessary because the project is preservation positive and the NPS committed to complete the Section 106 review in consultation with the SHPO on individual projects. In a response dated November 11, 2014, the SHPO determined that the undertaking will have no adverse effect on historic properties and noted that they will await further consultation on individual projects as funding and planning proceed (see attachment C).

***Degree to which the selected alternative may adversely affect an endangered or threatened species or its critical habitat:*** A letter from MDNR Natural Heritage Program dated June 12, 2013 identified two listed mussel species and four listed plant species as occurring within the Little Pool area; however, Little

Pool is located outside of the project area. A letter from the U.S. Fish and Wildlife Service dated June 12, 2013 confirmed that with the exception of occasional transient bald eagles, no federally proposed or listed endangered or threatened species are known to exist within the project area. One state endangered plant species (Short's sedge), state watchlist plant species (common hoptree) and the wood turtle (a G4/S4 species, or apparently secure in Maryland) utilize habitat within and adjacent to the canal and will be affected by rewatering of the canal. Impacts will be long-term minor and adverse. Sufficient habitat adjacent to the project area would remain functional to maintain the viability of the plant populations. Impacts to turtle aquatic and terrestrial habitat will be minimal and will not affect the connectivity to other nearby habitat. Preconstruction surveys will be conducted for presence of special status species.

The northern long-eared bat (*Myotis septentrionalis*) is one of the species of bats most impacted by the disease white-nose syndrome. On May 4, 2015, the northern long-eared bat received protection as a threatened species under the Endangered Species Act due to declines caused by white-nose syndrome, as well as the continued spread of the disease. Planning on the restoration of canal operations at Hancock began well in advance of the northern long-eared bat's current listing (see paragraph above). As a result of this new listing and prior to the implementation of the selected alternative during design review, NPS will initiate consultation under Section 7 of the Endangered Species Act with U.S. Fish and Wildlife Service to determine the best course of action to avoid affecting this species. Should mitigation measures be determined through consultation that fall outside the framework of this FONSI, additional NEPA compliance may be required.

***Whether the selected alternative threatens a violation of federal, state, or local environmental protection law:*** The NPS selected alternative violates no federal, state, or local environmental protection laws.

## **PUBLIC INVOLVEMENT**

The public involvement process was initiated in August 2010, when the park distributed a press release and newsletter to the public describing the project history, project purpose and need, a description of preliminary alternatives, an overview of the NEPA process, and opportunities for public comment. In addition to the newsletter, a public scoping meeting was held on August 25, 2010. A total of 51 correspondences were received that included suggestions for improving visitor services and amenities and for preservation, rehabilitation and restoration treatments for various historic structures.

The EA was made available for public review and comment from September 8 through October 10, 2014, as announced through a press release; notice of availability letter sent to the park's mailing list, and the NPS' PEPC website. A public meeting on the EA was held September 24, 2014. During the public review period 17 correspondences were received that were from individuals, Hancock Town Council, C&O Canal Association and Maryland's 6th District Congressman. Sixteen of the commenters noted their support of the proposed improvements. Reasons cited for that support included the revitalization of Hancock, positive impact on the economy, increased visitation, enhancement of the historic character and visitor experience, and increased education and recreational opportunities. One individual noted that the enhancements had advantages but that a disadvantage would be that the canal tree removal would negatively affect the visitor experience along the tow path by eliminating the shade and screening of the man-made structures that the trees provided.

## **CONCLUSION**

In light of the impacts described in the EA for the project and with guidance from NPS *Management Policies 2006*, natural and cultural resources information, professional judgment, and considering agency and public comments, the NPS has decided to implement the NPS selected alternative, presented as alternative 2 (NPS Preferred Alternative). Implementing the NPS selected alternative will rehabilitate, preserve and improve several historic buildings, sites and cultural landscapes and provide greatly

expanded visitor opportunities for learning about the C&O Canal and its operations in the early 19th century.

The NPS selected alternative does not constitute an action that normally requires preparation of an EIS and, as noted above, impacts resulting from implementing the action will not have a significant effect on the natural, cultural, or human environment. There are no significant impacts on public health, public safety, threatened or endangered species, historic properties either listed on or eligible for listing on the National Register of Historic Places, or other unique characteristics of the region. No highly uncertain or controversial impacts, unique or unknown risks, significant cumulative effects, or elements of precedence were identified during the impact assessment. Implementing the NPS selected alternative will not violate any federal, state, or local environmental protection laws. Based on the foregoing, it has been determined that an EIS is not required for this project and thus will not be prepared. This is a finding of no significant impact.

## REFERENCES

National Park Service (NPS). 2002. *Director's Order #77-1: Wetland Protection*. Re-issued in October. National Park Service (NPS). 2012a. *Procedural Manual #77-1: Wetland Protection*. Re-issued in January.

Recommended:



Kevin D. Brandt  
Superintendent

Chesapeake and Ohio Canal National Historical Park

5/7/15  
Date

Approved:



Robert Vogel  
Regional Director  
National Capital Region

6/3/15  
Date

## ATTACHMENT A: NON-IMPAIRMENT FINDING

The National Park Service has developed *Interim Guidance for Impairment Determinations in NPS NEPA Documents*. That guidance builds upon the statutory direction of the NPS Organic Act to manage resources “unimpaired for future generations” and the interpretation by the NPS of legislative direction in the *NPS Management Policies 2006*.

The *NPS Management Policies 2006*, Section 1.4.4, explains the prohibition on impairment of park resources and values:

*“While Congress has given the Service the management discretion to allow impacts within parks, that discretion is limited by the statutory requirement (generally enforceable by the federal courts) that the Park Service must leave park resources and values unimpaired unless a particular law directly and specifically provides otherwise. This, the cornerstone of the Organic Act, establishes the primary responsibility of the National Park Service. It ensures that park resources and values will continue to exist in a condition that will allow the American people to have present and future opportunities for enjoyment of them.”*

### What is Impairment?

*NPS Management Policies 2006*, Section 1.4.5, *What Constitutes Impairment of Park Resources and Values*, and Section 1.4.6, *What Constitutes Park Resources and Values*, provide an explanation of impairment.

Impairment is an impact that, in the professional judgment of the responsible National Park Service 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.

The NPS has discretion to allow impacts on Park resources and values when necessary and appropriate to fulfill the purposes of a Park (NPS 2006 Section 1.4.3). However, the NPS cannot allow an adverse impact that would constitute impairment of the affected resources and values (NPS 2006 Section 1.4.3).

Section 1.4.5 of *Management Policies 2006* states:

An 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 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.

Per Section 1.4.6 of *Management Policies 2006*, park resources and values that may be impaired include:

- the park’s scenery, natural and historic objects, and wildlife, and the processes and conditions 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, structures, 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.

Impairment may result from NPS activities in managing the park, visitor activities, or activities undertaken by concessionaires, contractors, and others operating in the park. Impairment may also result from sources or activities outside the park, but this would not be a violation of the Organic Act, unless the NPS was in some way responsible for the action.

#### **How is an Impairment Determination Made?**

Section 1.4.7 of *Management Policies 2006* states, "[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 related to the decision."

The Expand Existing Transit Maintenance Facility Environmental Assessment analyzes impacts to the following resources: soils and topography; vegetation; and park operations, management, and safety. NPS guidance provides that:

*"impairment findings are not necessary for visitor experience, socioeconomics, public health and safety, environmental justice, land use, and park operations, etc. because impairment findings relate back to park resources and values, and these impact areas are not generally considered to be park resources or values according to the Organic Act, and cannot be impaired the same way that an action can impair park resources and values."*

As a result, for purposes of this document, impairment findings are required for soils, topography, and vegetation.

#### **IMPAIRMENT DETERMINATION FOR THE SELECTED ALTERNATIVE**

An impairment determination is made for all relevant resource impact topics analyzed for the selected alternative. An impairment determination is not made for visitor use and experience, transportation, park operations or socioeconomics because impairment findings relate back to park resources and values, and

these impact areas are not generally considered to be park resources or values according to the Organic Act, and cannot be impaired in the same way that an action can impair park resources and values.

### **Soils and Vegetation**

Short- and long-term minor adverse impacts will occur to soils due to compaction, exposure, and modification of the structure of soils through the use of heavy equipment, small addition of impervious surface and localized increase in vehicle and foot traffic. Soil within the canal will be excavated to restore and rewater the canal prism. To minimize the loss of soil that is excavated, the material will be used at the wetland restoration site at the Canal Farm if feasible. Stabilizing existing soils at the restoration site will result in long-term beneficial soil effects.

Most construction activity will result in negligible impacts to vegetation since these areas that will be disturbed are adjacent to existing structures and have been previously disturbed and are very small in size. Restoring and rewatering the canal prism will result in moderate adverse impacts due to the removal of understory and shrub species as well as some mature canopy trees. However, compensation for this loss will occur at the restoration site. Therefore, there will be no impairment to soils and vegetation.

### **Wetlands and Submerged Aquatic Vegetation**

Less than 0.10 acres of shoreline wetland and submerged aquatic vegetation (SAV) will be impacted during construction of a new water intake structure. SAV is expected to reestablish naturally in all areas except where the permanent pipe structure and filter are placed. Rewatering of the canal will convert 3.05 acres of forested wetlands to open water wetland resulting in be a reduction in the abundance and diversity of wetland vegetation. Overall, the wetland impacts as a result of rewatering the canal and replacing the existing water intake will result in a long-term moderate adverse impact. Compensation for the loss of wetlands will include the restoration of 4.6 acres of forested wetland habitat at the park's Canal Farm, a long-term beneficial effect. Therefore, there will no impairment to submerged aquatic vegetation and wetlands.

### **Special Status Species**

Impacts to three state special status species that utilize habitat within and adjacent to the canal (common hoptree, Short's sedge, wood turtle) due to the rewatering of the canal will occur. Adverse impacts will be long-term and minor. Sufficient habitat adjacent to the project area would remain functional to maintain the viability of the plant populations. Impacts to turtle aquatic and terrestrial habitat will be minimal and will not affect the connectivity to other nearby habitat. Therefore, there will no impairment to special status species.

### **Floodplains**

The addition of new structures within the floodplain and removal of soils and vegetation will only affect a small portion of the floodplain and will result in long-term minor adverse impacts on floodplain values and flooding characteristics such as conveyance of flood flows and flooding potential. Moving the maintenance compound outside of the floodplain and restoring wetlands at the Canal Farm site will benefit the functionality of those floodplains. Therefore, there will no impairment to floodplains.

### **Archeology**

There are two known archeological resources (18WA590 and 18WA591) at Hancock that could be impacted by the project. Neither site has been fully evaluated for eligibility for listing in the National Register of Historic Places; however as design progresses, both sites will be avoided to the extent possible. As a result, no impacts to these sites are expected to be more than minor, or to be an adverse

effect under Section 106 of the National Historic Preservation Act. Since the sites will be protected in situ and impacts will not affect their integrity or potential to be listed in the National Register, there will therefore be no impairment to archeological resources.

### **Historic structures and Districts**

Preservation and stabilization of the Bank Barn, restoration of the Bowles House and cultural landscape and the restoration and rewatering of the canal will have long-term beneficial impacts on historic structures and make them more consistent with their historic appearance and function. The new elements added to the park, including a walk-in campground within the location of the current maintenance facility, improvement to the access road, construction of docks, and the replacement of the non-historic bridge crossing the canal would all have negligible or no impacts depending upon their location in relation to the canal and the Bowles House and grounds. Construction of a new maintenance access road with dikes and pipes would have a minor adverse impact. Indirect impacts on known historic structures and the C&O Canal historic district would be negligible to beneficial over the long term. Because the impacts to historic structures and the C&O Canal Historic District are overwhelmingly beneficial, there will therefore be no impairment to these resources.

### **Cultural Landscape**

Rewatering the canal and restoring it to its former appearance, rehabilitating the Bowls House, restoring the area around the Bowles House to a more appropriate setting and removing the maintenance yard from the Bowles House setting all have beneficial impacts on the landscape of the canal and house. Additions to the landscape in the form of bridges, docks, roads and a walk-in campground will be appropriately sited and conform to the Secretary of the Interior's Standards. As a result, the improvements will greatly benefit the canal setting and landscape with only small adverse impacts. Therefore, there will be no impairment to cultural landscapes