



## FINDING OF NO SIGNIFICANT IMPACT

### REHABILITATE TIDAL BASIN AND WEST POTOMAC PARK SEAWALLS ENVIRONMENTAL ASSESSMENT

#### WASHINGTON, DC

The National Park Service (NPS) prepared an Environmental Assessment (EA) to evaluate the impacts from the rehabilitation of approximately 6,800 linear feet of seawalls along West Potomac Park and portions of the Tidal Basin in Washington, DC (Proposed Action). The original seawalls were constructed from the late 1800s to early 1900s and have since significantly settled as much as five feet into the underlying soft soils. This settlement in conjunction with sea level rise have resulted in the seawalls becoming overtopped twice daily during normal tidal conditions. Greater lengths of the seawall and areas of the National Mall and Memorials Park (Park) are submerged during and after extreme weather events. Under the proposed action, the NPS is prioritizing rehabilitation of sections of the seawall in most need of repair, including areas where the top of the seawall is at the lowest elevation and most frequently overtopped and severely affected by daily tides.

The seawall settlement and deterioration over time has led to reduced public access, trip and fall hazards, and damage to the cultural landscape and Park infrastructure. Some of the overtopped areas do not drain resulting in standing water and mud along the walkways. Overtopped areas are frequently littered with woody debris and other trash from the river. Trash and decomposing organic material from the river deposited along the shoreline leads to concerns for sanitation and health and safety for Park visitors as well as budget and maintenance issues for the NPS.

The existing structural deficiencies of the seawalls are not only negatively impacting visitor use and experience, but also allowing flood waters to drown out vegetation, adversely affecting the natural and cultural landscape. The purpose of taking action is to restore the historic functional height<sup>1</sup> of the seawalls within their historic alignment to provide flood protection and stabilize settlement of the seawalls. The rehabilitated seawall will minimize soil erosion and safety hazards, restore the cultural landscape, and improve visitor experience along the shorelines. The project is needed because existing structural deficiencies of the seawall is negatively impacting the experience and safety of Park visitors due to regular flooding.

The EA was prepared in accordance with the National Environmental Policy Act (NEPA) of 1969 as implemented by Council for Environmental Quality regulations (40 CFR 1500-1508); NPS Director's Order #12: Conservation Planning, Environmental Impact Analysis, and Decision-Making; and the NPS NEPA Handbook. Compliance with section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, and Section 7 of the Endangered Species Act was conducted concurrently with the NEPA process. 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

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<sup>1</sup> The original seawalls were constructed such that the top of the wall was six feet above mean low water at the time of their construction.

incorporated by reference.

## **PUBLIC AND AGENCY INVOLVEMENT**

**Public Scoping** – As part of the NEPA process and to comply with the requirements of Section 106 of the NHPA, the NPS involved the public in project scoping by holding a 55-day public scoping period from July 19, 2022, to September 12, 2022. A virtual public scoping meeting was held on July 19, 2022, using the Microsoft Teams platform. The NPS communicated project information with the public, agencies, and other relevant stakeholders during scoping by transmitting scoping letters and a press release by email. The scoping letter was distributed by the NPS to interested parties on July 14, 2022. The NPS prepared a press release that was sent to local media outlets on July 15, 2022 and uploaded to NPS press release webpages. The presentation used during the virtual public meeting and a recording of the meeting are available at the NPS Planning and Public Comment (PEPC) project webpage: <https://parkplanning.nps.gov/SeawallRehabilitation>.

**EA Public Review** – The EA was made available for a 30-day public review period from March 6, 2023 to April 5, 2023 at the NPS PEPC project webpage:

<https://parkplanning.nps.gov/document.cfm?documentID=127004>. The NPS prepared a press release to announce the opportunity to comment during public review of the EA. The press release was uploaded to NPS press release webpages and sent out to media outlets on March 6, 2023. Information in the press release included a solicitation for public comments, a summary of the Preferred Alternative, and details regarding how to submit comments. A total of 21 individual correspondences were received during the public review period. The majority of the correspondences expressed positive support for the project. Responses to substantive public comments are provided in **Appendix C**.

**National Historic Preservation Act, Section 106 Consultation** – Pursuant to Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations (36 CFR Part 800) “Protection of Historic Properties,” the NPS initiated Section 106 consultation with the District of Columbia Historic Preservation Office (DC SHPO), Virginia Department of Historic Resources (VDHR), National Capital Planning Commission (NCPC), and the Advisory Council on Historic Preservation (ACHP) on May 19, 2022. The initiation letters briefly described the project and invited comments. The NPS held two Section 106 Consulting Party meetings on August 2, 2022 and December 15, 2022 to discuss the project’s potential impact on cultural resources and review the draft Assessment of Effects (AOE) report and draft Memorandum of Agreement (MOA), which outlines all minimization and mitigation efforts of adverse effects to historic resources. Based on the AOE, it was determined that the proposed undertaking will minimize existing and continual adverse effects to historic resources resulting from the failing seawalls, including prevention of daily flooding, erosion of the landscape, and the continued loss of Japanese cherry trees and other vegetation. Though the seawall rehabilitation will result in adverse effects, there will also be a significant adverse effect to historic resources by not proceeding with the rehabilitation of the seawalls. The NPS will implement mitigation measures to avoid, minimize and mitigate adverse effects are described in Appendix A. The DC SHPO, NCPC and VDHR concurred with the NPS’s determination in responses dated April 21, 2023, and ACHP on May 19, 2023. The AOE Report and associated MOA are included as **Appendix D**. Section 106 consultation letters and responses are provided in **Appendix E**.

**Tribal Consultation** – Tribal consultation initiation letters were sent on May 19, 2022 to the Absentee Shawnee Tribe of Indians of Oklahoma Nation, Catawba Indian Nation, Cherokee Nation, Chickahominy Indian Tribe, Chickahominy Tribe Eastern Division, Delaware Nation, Monacan Indian Nation, Nansemond Indian Nation, Pamunkey Indian Tribe, Rappahannock Tribe, Shawnee Tribe, and the Upper Mattaponi Tribe.

The Shawnee Tribe responded that they were not aware of any tribal cultural resources that would

be affected by the proposed action but requested to be contacted in the event of an inadvertent discovery. The Nansemond Indian Nation provided new tribal leadership contacts. The Catawba Indian Nation, Cherokee Nation, and Delaware Nation had representatives attend the consulting party meeting on August 2, 2022. In an email dated January 26, 2023, the Catawba Indian Nation noted they had no concerns with the draft AOE Report or MOA. In response to a consulting party meeting email, the Shawnee Tribe stated the project is out of the Tribe's area of interest. The Shawnee Tribe also provided email correspondence dated April 10, 2023 in response to the EA's public review period and noted the project is out of their area of interest. All tribal correspondence is included in **Appendix E**.

**Endangered Species Act, Section 7 Consultation** – In accordance with Section 7 of the Endangered Species Act, the NPS consulted with the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NMFS) to determine the potential presence of federally listed species in the project area. The NPS initiated informal Section 7 consultation with NMFS in a letter dated November 23, 2022 and delivered electronically on November 30, 2022. The NPS sent a follow-up letter on February 23, 2023 requesting concurrence from NMFS that the proposed activity may affect but is not likely to adversely affect listed species under NMFS' jurisdiction. The NPS also requested a waiver from time-of-year restrictions (TOYR) for in-water construction activities. In a letter dated March 28, 2023, NMFS concurred with the NPS' determination of "may affect but is not likely to adversely affect" and noted they do not require a TOYR.

The NPS also requested an IPaC project review from the USFWS Chesapeake Bay Field Office on January 9, 2023. In an email dated February 3, 2023, the USFWS stated that the proposed project area is not considered to be habitat for northern long-eared bat (*Myotis septentrionalis*), thus the proposed action is expected to have no effect on the species. A copy of the IPaC project review results and all Section 7 correspondence are provided in **Appendix F**.

**Clean Water Act and Rivers and Harbors Act** - In accordance with Sections 404 and 401 of the CWA (33 USC 1344 and 33 USC 1341, respectively), as well as Section 10 of the Rivers and Harbors Act of 1899 (33 USC 403), the NPS is seeking authorization from the USACE and DOEE for regulated activities proposed within jurisdictional wetlands and other waters of the U.S. located within the study area. Coordination regarding these authorizations is ongoing at the time of this EA and FONSI. As part of the permit review processes, potential impacts to jurisdictional wetlands and other waters of the US will be avoided or minimized to the maximum extent practicable, and the NPS will coordinate with USACE and DOEE to determine appropriate compensatory mitigation for any unavoidable adverse impacts to water resources.

## **ALTERNATIVES CONSIDERED AND SELECTED**

The EA analyzed two alternatives: Alternative A – No Action Alternative; and Alternative B – Proposed Action Alternative. A detailed description of the alternatives can be found on pages 8 through 18 of the EA. The No Action Alternative was carried forward to provide a comparative baseline against which to analyze the effects of the Proposed Action (40 CFR Part 1502.14). Based on the analysis presented in the EA, the NPS selected the Proposed Action Alternative for implementation. The Selected Alternative will rehabilitate approximately 6,800 linear feet of seawall along West Potomac Park and portions of the Tidal Basin. The existing stone seawall will be removed and reconstructed along the historic alignment and to the historic functional height of the original seawalls. Due to settlement and sea level rise, the top of wall elevation for the rehabilitated seawall will be raised above present wall elevations to achieve the historic functional height. Existing top of wall elevations range from +0.88 feet to +3.57 feet within the Tidal Basin

project area and range from 0.00 feet to +3.20 feet along West Potomac Park<sup>2</sup>. The rehabilitated top of wall elevation will be +4.75 feet within the Tidal Basin and will be +5.50 feet along West Potomac Park. The higher elevation in West Potomac Park is necessary to account for wind and wave conditions along the Potomac River. To the extent possible, existing stones of the historic wall will be salvaged and reused in the rehabilitation of these seawalls.

The seawalls will be built on pile-supported platform foundations that bear on bedrock, relieving the weight of the structure on the soft soils that caused the previous settlement. This type of foundation will allow additional capacity for the walls to be extended vertically in response to future sea level rise or changing climate patterns, including storms of greater intensity and frequency that may result in increasing storm surge elevations. The walkways along the seawalls will also be repaired or replaced. Walkways will be widened from eight to twelve feet and will connect to existing pedestrian walkways around the Tidal Basin providing a seamless and accessible route to the rehabilitated seawall. To rehabilitate the seawall and replace the existing walkway, some construction activities will occur within the Potomac River and Tidal Basin, which may require a temporary cofferdam. Approximately 300 trees will be removed to accommodate the seawall rehabilitation and associated regrading of the landscape. Trees will be replaced in kind, according to NCPC guidelines, and informed by the NPS's Cultural Landscape Report for the Tidal Basin, as well as in consultation with a NPS historical landscape architect and NPS arborist. Additional details on the Selected Alternative are provided in the EA.

### **RATIONALE FOR DECISION**

The NPS identified Alternative B as the Selected Alternative as it fully satisfies the purpose of and need for the project with minimal impacts to natural and cultural resources and the human environment. The design and implementation of Alternative B will address current safety and degradation issues while maintaining the historic integrity of the cultural landscape and contributing resources. Alternative B was developed based on input received during the public scoping period and agency coordination, in conjunction with design, logistical, and schedule considerations. In comparison, the No Action Alternative would not meet the project's purpose and need as the seawalls would continue to deteriorate, resulting in increased flooding and adverse impacts to the landscape and visitor safety/experience.

### **ALTERNATIVES DISMISSED FROM FURTHER CONSIDERATION**

As discussed on page 19 of the EA, the NPS has studied alternatives to repair/rehabilitate the seawall since 1994 and conducted a thorough analysis of project alternatives against established screening criteria to determine the best alternatives to carry forward for detailed analysis. Alternatives must satisfy the purpose and need of the project, which is to restore the seawall to its historic functional height in order to improve the experience and safety of Park visitors. Alternatives must also be technically, logistically, and economically feasible. Multiple alternatives were considered, including a variety of seawall foundation options, various wall types, riprap erosion control/revetment, and living shorelines. These alternatives were ultimately dismissed from further analysis because they would not satisfy the project purpose and need or would not be feasible. Further, alternatives were dismissed if a similar concept would be more environmentally damaging, have increased impacts to visitor use, and/or would be more expensive.

### **MITIGATION MEASURES**

The NPS places a strong emphasis on avoiding, minimizing, and mitigating potentially adverse impacts to affected resources, whether under the jurisdiction of the NPS or as a result of an NPS decision. To help ensure the protection of natural and cultural resources and the quality of the

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<sup>2</sup> Elevations are based on the North American Vertical Datum of 1988 (NAVD88).

visitor experience, the NPS will implement a variety of mitigation measures under the Selected Alternative. These mitigation measures will allow the NPS to meet its conservation mandates as required by the NPS Organic Act (54 USC 100101 et seq.) and minimize impacts to the park visitors. Mitigation measures are provided in **Appendix A**. Exact mitigation measures to be implemented will depend upon the final design and approval of plans by the NPS.

## **WHY THE SELECTED ALTERNATIVE WILL NOT HAVE A SIGNIFICANT IMPACT**

As documented in Chapter 3 of the EA, the Selected Alternative will result in adverse impacts from construction activities to historic resources and cultural landscapes (see EA, pages 29-34), visitor use and experience landscapes (see EA, pages 35-38), water resources landscapes (see EA, pages 40-42), and rare, threatened, and endangered species landscapes (see EA, pages 44-45). The rehabilitation of the seawalls, however, will benefit these resources by protecting against daily flooding and erosion, improving the visitor experience, and preventing the continued loss of Japanese cherry trees and other vegetation. Anticipated impacts that will occur are summarized below by resource. The NPS has determined that the selected alternative can be implemented without significant adverse effects, as defined in 40 CFR 1508.27.

**Historic Resources and Cultural Landscape.** The existing stone seawall is a contributing historic resource to the National Mall and East and West Potomac Park Historic Districts, as are the Japanese cherry trees and other contributing vegetation. Construction of the project will result in adverse effects on historic and cultural resources from vegetation clearing, road closures and detours, and temporary changes to existing views to and from the project area. After completion of the project, the overall aesthetics of the area will be greatly improved due to reduced flooding and landscape improvements. Historic and contributing resources will benefit from the protection against flooding and erosion in the surrounding landscape. Numerous Japanese cherry trees are currently subjected to regular inundation from daily flooding due to the seawall overtopping. The NPS has developed an MOA with the DC SHPO, NCPC, and ACHP stipulating continued consultation and monitoring for the project and mitigation of any adverse effects to historic resources and cultural landscapes (**Appendix D**).

**Visitor Use and Experience.** Construction activities will temporarily disrupt vehicular, pedestrian, and cyclist traffic, as well as increase noise levels that may interfere with the visitor experience. Furthermore, construction equipment will temporarily diminish the aesthetics of West Potomac Park and the Tidal Basin. Following construction completion, however, proposed improvements to the existing seawall and walkways will benefit visitor enjoyment, safety, and circulation.

**Water Resources.** The proposed action requires construction activities in the Potomac River. As a result, adverse impacts to water resources will occur due to disturbed river bottom sediments and temporary changes to the water quality. All erosion and sediment control practices will be reviewed and approved by DOEE and the NPS prior to implementation, and all necessary permits and approvals will be obtained. After construction is complete, the rehabilitated seawall will significantly reduce the frequency of overtopping events, and associated grading will prevent water from ponding; thereby reducing the volume and frequency of soil and sediment discharge and erosion into the Potomac River. The project will result in beneficial impacts to aquatic resources due to reduction in sedimentation and turbidity.

**Rare, Threatened and Endangered Species.** Under the proposed action, disturbance will occur to the Potomac River, which may potentially contain two federally endangered species, shortnose sturgeon (*Acipenser brevirostrum*) and Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*), and their designated critical habitat. The project may affect but is not likely to adversely affect these species given that the in-water project area is minimal compared to total available habitat in the

Potomac River. Effects to sturgeon foraging and migration will be less than significant. In addition, the NPS will implement best management practices during construction activities to avoid or minimize potential impacts from cofferdam installation and related noise. In a letter dated March 28, 2023, NMFS concurred with the NPS' determination of "may affect but is not likely to adversely affect" and noted they do not require a TOYR for in-river construction activities. Under the proposed action, tree clearing will occur within the project area. The USFWS does not consider the trees within the project area to be habitat for the northern long-eared bat (*myotis septentrionalis*), and therefore the proposed action will not have an effect on this species. No impacts to other rare, threatened, or endangered species are anticipated, and the NPS has completed Section 7 consultation (**Appendix F**).

## CONCLUSION

As described above, the Selected Alternative does not constitute an action meeting the criteria that normally requires preparation of an 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:**

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May 22, 2023

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Jeffrey P. Reinbold  
Superintendent  
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Date

**Approved:**

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Kimberly A. Hall  
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Date

- Appendix A: Mitigation Measures
- Appendix B: Non-Impairment Determination
- Appendix C: Concern Statements and Responses
- Appendix D: Section 106 Memorandum of Agreement
- Appendix E: Section 106 Coordination Letters
- Appendix F: Section 7 Coordination Letters

## **APPENDIX A: MITIGATION MEASURES**

### **Historic Resources and Cultural Landscapes**

The NPS, DC SHPO, National Capital Planning Commission (NCPC), and the Advisory Council on Historic Preservation (ACHP) have developed a MOA that defines the continued consultation and monitoring processes for the project and stipulates mitigation of any adverse effects to historic resources and cultural landscapes.

- The horizontal alignment of the seawalls will not be altered, avoiding any changes to the shape of the Tidal Basin and West Potomac Park and adverse effects pertaining to the location of the seawall.
- Trees and vegetation within the construction area that are to remain will be protected throughout construction to avoid adverse effects.
- Design and construction of the new seawalls will be undertaken in a way that maximizes the reuse of the existing stone and preserves the historic ashlar pattern of the stacked stone walls in the visible portion of the walls to minimize adverse effects. Additionally, new stone will be placed on the lower levels of the wall at elevations with limited visibility due to tides. Construction of the new wall will be consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties<sup>3</sup>.
- The approximately 300 trees removed from the cultural landscapes will be replaced in kind, that have the same visual qualities as the trees to be removed based on the location, soil conditions, or as determined appropriate by an interdisciplinary team led by a NPS historical landscape architect, to mitigate the adverse effects from the loss of contributing vegetation. Trees will be replaced based on diameter at breast height (DBH) with an overall increase in total DBH at the site, in accordance with NCPC policy<sup>4</sup>, and informed by the NPS' Cultural Landscape Report for the Tidal Basin, as well as a historical landscape architect and NPS arborist. The NPS will conduct research and look into the existing HALS documentation and historic plans to help determine where trees are planted around the Tidal Basin. Tree replacement in West Potomac Park and other parts of the Park will be determined by an interdisciplinary team.
- To mitigate adverse effects that cannot be avoided or minimized, the NPS will install interpretive signage along the Tidal Basin educating the public on the history and significance of the Tidal Basin and the seawalls.
- To mitigate adverse effects that cannot be avoided or minimized, the NPS would complete a comprehensive plan for the Tidal Basin that would include alternatives to rehabilitate the cultural landscape and protect/enhance area aquatic environments while accommodating and meeting very high levels of visitor use in an attractive, convenient, high quality, energy efficient and sustainable manner. The Plan/Environmental Assessment would address multi-modal circulation and transportation; connectivity; conservation; tree preservation; protection of aquatic resources; climate change and sea level rise resilience; infrastructure; memorials and cultural landscape protection; security; visitor experience, enjoyment, recreation, and services; seawall solutions and facilities; and flexible public spaces to accommodate a wide variety of national celebrations, First Amendment gatherings, and other permitted activities.

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<sup>3</sup> National Park Service. 2017. The Secretary of the Interior's Standards for the Treatment of Historic Properties. Available at: <https://www.nps.gov/orgs/1739/secretary-standards-treatment-historic-properties.htm>.

<sup>4</sup> National Capital Planning Commission. 2020. Tree Preservation and Replacement. Available at: [https://www.ncpc.gov/docs/publications/Tree\\_Preservation\\_and\\_Replacement\\_Resource\\_Guide\\_2020.pdf](https://www.ncpc.gov/docs/publications/Tree_Preservation_and_Replacement_Resource_Guide_2020.pdf).



## **Visitor Use and Experience**

- The approximately 300 trees removed from the cultural landscapes will be replaced in kind, that has the same visual qualities as the trees to be removed based on the location, soil conditions, or as determined appropriate by an interdisciplinary team led by a NPS historical landscape architect, to mitigate the adverse effects from the loss of contributing vegetation. Trees will be replaced based on diameter at breast height (DBH) with an overall increase in total DBH at the site, in accordance with NCPC policy<sup>5</sup>, and informed by the NPS' Cultural Landscape Report for the Tidal Basin, as well as a historical landscape architect and NPS arborist. The Tidal Basin Cultural Landscape Report will be used to determine where trees are planted around the Tidal Basin. Tree replacement in West Potomac Park and other parts of the Park will be determined by an interdisciplinary team.
- Efforts will be made during construction to minimize temporary adverse effects to visitor experience with sensitive fencing and signage directing them around the construction. After construction, full access to the resources will be restored.
- Temporary detours will be established for trails, parks, and sidewalks during construction.
- Temporarily relocated Park functions and facilities will be re-established after construction.
- Wildlife friendly barriers will be placed around construction sites to limit the visibility of activities and equipment and to protect the safety of visitors.
- In-river construction areas will be clearly defined, and access will be restricted to ensure the safety of visitors engaged in water-based activities.
- Noise reduction measures will be implemented at construction areas and may include temporary noise barriers, the use of quiet equipment models, maintaining mufflers, lubrication of equipment, limiting idling, and minimizing the use of back-up alarms.,
- Construction means and methods will be identified to minimize the effects of vibration on the historic structures and memorials enjoyed by Park visitors. Pre-construction surveys, monitoring, and structural protection will be implemented, as needed.
- Maintenance of traffic will be implemented during construction to minimize congestion. The NPS will continue to coordinate with District of Columbia Water and Sanitation Authority (DC Water) and District Department of Transportation (DDOT) regarding the design, construction, and use of the Ohio Drive Southwest (SW) detour road proposed in West Potomac Park in support of the Potomac River Tunnel construction. Final selection of haul routes will take traffic, road conditions, and bridge capacities into consideration.
- Temporary ABAAS-compliant pedestrian access routes will be provided for other facilities adjacent to construction areas. Pathways adjacent to the reconstructed seawalls will be widened from eight feet to twelve feet in width to accommodate the many visitors to the Park.

## **Water Resources**

- The waterward extent of the temporary construction activities has been minimized. Installation and removal of cofferdams will occur behind turbidity curtains to contain disturbed river bottom sediments during work within the Potomac River and Tidal Basin and reduce potential water quality impacts during construction.
- The NPS will implement erosion and sediment controls in accordance with U.S.

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<sup>5</sup> National Capital Planning Commission. 2020. Tree Preservation and Replacement. Available at: [https://www.ncpc.gov/docs/publications/Tree\\_Preservation\\_and\\_Replacement\\_Resource\\_Guide\\_2020.pdf](https://www.ncpc.gov/docs/publications/Tree_Preservation_and_Replacement_Resource_Guide_2020.pdf).

Environmental Protection Agency's (EPA) National Pollution Discharge Elimination System (NPDES) Construction General Permit and District of Columbia Energy and the Environment (DOEE) requirements. These controls will be employed in areas of ground disturbance and sufficiency will be reviewed and approved by DOEE.

- All measures will be taken to protect against spill or loss of hazardous materials and solid waste at the construction sites. This may include onsite spill kits, containment storage, and covered waste containers.
- Silt fencing, silt bags, cofferdams, hay bales, diversion channels and berms, temporary stormwater basins, temporary inlet protection, stabilized construction entrances, and vegetation stabilization may be used to contain erodible materials within the construction areas.
- Coordination between the NPS and DC Water during final design to avoid impacts to the Potomac Force Mains.
- Water removed from inside the cofferdam will be treated in tanks, cofferdam cells, or passed through a filter bag to reduce sediment before discharging the water back to the river.
- Surface water monitoring will be conducted to ensure that erosion and sediment controls are effective during construction, as needed.
- Coordination between the NPS, USACE, and DOEE will be undertaken to determine potential mitigation for permanent wetland impacts in accordance with Sections 401 and 404 of the CWA.

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

- The NPS committed to either time of year restrictions for tree and vegetation removal or pre-construction nesting bird surveys conducted by a qualified biologist.
- To avoid or minimize potential adverse impacts from cofferdam installation and related noise to endangered sturgeon, the NPS will implement the following best management practices during the construction of the cofferdam:
  - Deploy and maintain turbidity curtains outside of the cofferdam during installation and removal.
  - Monitor the effectiveness of turbidity controls per DOEE recommendations.
  - Water removed from inside the cofferdam will be treated in tanks, cofferdam cells, or passed through a filter bag to reduce sediment before discharging the water back to the river.
  - Use of vibratory hammer in lieu of an impact hammer to install sheet piles.
  - Soft start – During a soft start lower vibratory hammer energy levels will be used to start the pile driving process, and then the force of pile driving is gradually increased. This process allows all endangered sturgeon in the area to be alerted that work is beginning and gives them an opportunity to clear the area.

## APPENDIX B: NON-IMPAIRMENT DETERMINATION

By enacting the National Park Service (NPS) Organic Act of 1916 (Organic Act), Congress directed the US Department of Interior and the NPS to manage units “to conserve the scenery and the natural and historic objects and wildlife therein and to provide for the enjoyment of the same in such a manner and by such a means as will leave them unimpaired for the enjoyment of future generations” (54 USC 100101). Congress reiterated this mandate in the Redwood National Park Expansion Act of 1978 by stating that the NPS must conduct its actions in a manner that will ensure no “derogation of the values and purposes for which these various areas have been established, except as may have been or shall be directly and specifically provided by Congress” (54 USC 100101).

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 sec. 1.4.3). However, the NPS cannot allow an adverse impact that will constitute impairment of the affected resources and values (NPS 2006 sec 1.4.3). An action constitutes an impairment when its impacts “*harm the integrity of Park resources or values, including the opportunities that otherwise will be present for the enjoyment of those resources or values*” (NPS 2006 sec 1.4.5). To determine impairment, the NPS must evaluate “*the particular resources and values that will be affected; the severity, duration, and timing of the impact...and other impacts*” (NPS 2006 sec 1.4.5).

This determination on impairment has been prepared for the Selected Alternative (proposed action) described in this finding of no significant impact. An impairment determination is made for resource topics of historic resources and cultural landscapes, water resources, and rare, threatened, and endangered species. These resources are considered fundamental to the National Mall and Memorials Park (the Park), and the NPS as a whole. An impairment determination is not made for visitor use and experience because impairment findings relate back to park resources and values, and this impact area is not generally considered to be a park resource or value according to the Organic Act and cannot be impaired in the same way that an action can impair park resources and values. This determination on impairment has been prepared for the preferred alternative described in Chapter 2 of the Environmental Assessment (EA).

### HISTORIC RESOURCES AND CULTURAL LANDSCAPES

The Area of Potential Effect for the Selected Alternative includes six historic districts, multiple cultural landscapes, and individual resources listed in the National Register of Historic Places. During construction, views to and from the Tidal Basin and several monuments and memorials will be temporarily blocked. Numerous Japanese cherry trees and other contributing vegetation will be removed as well. These adverse impacts will be minimized through mitigation measures and continued consultation with the District of Columbia Historic Preservation Office and other consulting parties, as discussed in Chapter 2 of the EA. Though the Selected Alternative will result in adverse effects due to the loss of historic fabric, it will minimize longstanding adverse effects to historic resources resulting from the failing seawalls by preventing daily flooding while also minimizing erosion of the landscape. After construction activities are completed, disturbed areas of the landscape will be replanted with appropriate vegetation. Cleared trees will be replaced on-site, to the extent possible, or elsewhere in the park.

Construction activities will adhere to the requirements of the MOA included in **Appendix C**. None of the impacts will affect the eligibility for listing of any of the historic resources in the National Register of Historic Places, and the purpose and significance of the National Mall and Memorial Parks will be unaltered. Following construction completion, Park resources and historic sites will be available for visitor use and enjoyment. Therefore, implementation of the Selected Alternative will not result in an impairment to historic resources or cultural landscapes.

## **WATER RESOURCES**

There will be no impairment to water resources under the Selected Alternative. During construction, activities such as ground disturbance, temporary stockpiling of loose soil, and dewatering practices will result in temporary impacts on water quality. However, the NPS will employ strict erosion and sediment controls and other best management practices to minimize water impacts. Overall, adverse impacts to water resources will be minor, temporary, and will not alter the purpose and significance of the Park. In addition, the Selected Alternative will significantly reduce the frequency that the seawalls are overtopped and decrease the frequency and volume of sediment discharge.

## **RARE, THREATENED, AND ENDANGERED SPECIES**

The NPS determined construction disturbance may affect but is not likely to adversely affect the federally endangered shortnose sturgeon (*Acipenser brevirostrum*), all five Distinct Population Sections of the federally endangered Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*) and designated critical habitat for both species. In a letter dated March 28, 2023, the National Oceanic and Atmospheric Administration's National Marine Fisheries Service concurred with the determination of not likely to adversely affect. Following implementation of the Selected Alternative, the reduction in sediment eroding into the river from behind the seawalls will be beneficial to water quality and sturgeon habitat.

Although tree clearing will occur during construction, the US Fish and Wildlife Service (USFWS) concurred that the proposed action is expected to have no effect on the northern long-eared bat (*Myotis septentrionalis*) because they do not consider the trees within the project area to be suitable habitat for that species. Thus, there will be no impairment to rare, threatened, and endangered species under the Selected Alternative.

## **CONCLUSION**

The NPS has determined that the implementation of the Selected Alternative will not constitute an impairment of the resources or values of the National Mall and Memorials Park. As described above, implementing the Selected Alternative is not anticipated to impair resources or values that are essential to the purposes identified in the establishing legislation of the Park, key to the natural or cultural integrity of the Park, or identified as significant in the Park's relevant planning documents. This conclusion is based on consideration of the Park's purpose and significance, a thorough analysis of the environmental impacts described in the EA, the comments provided by the public and others, and the professional judgment of the decision-maker guided by the direction of the NPS Management Policies 2006.

## APPENDIX C: CONCERN STATEMENTS AND RESPONSES

This report groups substantive comments into concern statements and provides NPS's responses. Substantive comments are those that: question, with reasonable basis, the accuracy of the information in the NEPA document; question, with reasonable basis, the adequacy of the environmental analysis; present reasonable alternatives other than those presented in the NEPA document; or cause changes or revisions in the proposal. Comments that merely support or oppose a proposal or that merely agree or disagree with NPS policy are not considered substantive.

### SUGGESTIONS FOR NEW ALTERNATIVES

Concern Statement	Response
<p>Consider the use and implementation of other methodologies as alternatives to seawall rehabilitation, such as:</p> <ul style="list-style-type: none"><li>• Living Shorelines</li><li>• Green Infrastructure</li></ul>	<p>This project is a rehabilitation project of the existing seawall for both the Tidal Basin and West Potomac Park, therefore replacement in-kind was the only option. The stone seawalls are contributing resources to the East and West Potomac Parks Historic District, which was listed in the National Register of Historic Places in 1973 under Criteria A and C because they are an important feature of the U.S. Army Corps of Engineers' (USACE) efforts to reclaim the Potomac Flats. The seawalls are integral to the historic viewshed and cultural landscape of the Tidal Basin and West Potomac Park. The NPS conducted a thorough analysis of project alternatives against established screening criteria to determine the best alternatives to carry forward for detailed analysis. Alternatives must satisfy the purpose and need of the project, which is to restore the seawalls to their historic functional height within their historic alignment while also restoring the cultural landscape, stabilizing settlement of the seawalls, minimizing safety hazards, and improving visitor experience. Alternatives must also be technically, logistically, and economically feasible. Multiple alternatives that included living shorelines and/or green infrastructure elements were considered; however, they were ultimately dismissed from further analysis because they would not satisfy the project purpose and need or would not be feasible. Alternatives considered but dismissed are discussed in further detail on p. 19 of the EA and in Table 1, which provides</p>

Concern Statement	Response
<p>Consider the repair of the Tidal Basin inlet gates as an alternative solution or supplement to seawall rehabilitation.</p>	<p>an evaluation of alternatives against the project’s purpose and need screening factors.</p> <p>The gates are managed by the USACE, and any gate improvements would be prioritized for USACE needs and managed with USACE funding. Currently, the gates are not fully operational. The historic function of the Tidal Basin inlet gates was primarily to facilitate flushing of sediment within the Washington Channel. Though the gates include ‘curtain gates’ which were installed to prevent silt and other debris from entering the Tidal Basin during a flood, there is no evidence any of the gates were ever used to provide flood control, including during the noteworthy floods of 1936, 1942, or 1972 where historical photographs show significant parts of the land surrounding the Tidal Basin to be underwater. The USACE recently received funding to remove debris and conduct a feasibility study to help determine how to fix the gates and the associated costs. The USACE has indicated that any physical repairs would not be made for several years. As such, the NPS cannot rely on USACE tidal gate improvements for guiding seawall rehabilitation design approach and/or flood control given competing priorities and timelines. The NPS regularly coordinates with USACE and will continue to do so.</p>
<p>Consider incorporating Tidal Basin Ideas Lab designs.</p>	<p>The NPS appreciates the innovative concepts and designs submitted through the Tidal Basins Ideas Lab (Ideas Lab). However, the Proposed Action is limited to the rehabilitation of the portions of the Tidal Basin seawalls that are overtopped most frequently. Therefore, the winning designs from the Ideas Lab do not serve as alternatives as the Proposed Action is not a re-design of the shoreline or an approach to flood control. The Ideas Lab concepts will be considered as the NPS initiates the process to develop a comprehensive Master Plan for the Tidal Basin.</p>
<p>The EA does not evaluate multiple</p>	<p>As discussed under <i>Alternatives Considered</i></p>

Concern Statement	Response
<p>alternatives to the Proposed Action.</p>	<p><i>but Dismissed</i> in the EA (p. 19), the NPS considered many alternatives to the Proposed Action and has conducted studies on alternatives to repair the seawall since 1994. Summary reports of these studies were included by reference in the EA. Alternatives must satisfy the purpose and need of the project, which is to restore the seawalls to their historic functional height within their historic alignment while also restoring the cultural landscape, stabilizing settlement of the seawalls, minimizing safety hazards, and improving visitor experience. The NPS is prioritizing rehabilitation of sections of the seawall in most need of repair, including areas where the top of the seawall is at the lowest elevation, most frequently overtopped and severely affected by daily tides. The NPS established a set of screening criteria to determine if an alternative would meet the Proposed Action’s purpose and need, and would be technically, logistically, or economically feasible (see Table 1 in the EA). Through an analysis of the alternatives compared against the screening criteria, the Proposed Action Alternative and the No Action Alternative were carried forward for analysis.</p>

## VISITOR USE AND EXPERIENCE

Concern Statement	Response
<p>Maintaining accessibility for bicyclists and pedestrians.</p>	<p>During construction activities, detours will route bicyclists and pedestrians around the work areas. This may temporarily disrupt traffic and detract from the visitor experience at Park sites during project implementation. The Proposed Action includes widening the walkway adjacent to the Tidal Basin seawalls from 8-feet to 12-feet within the project area. The new walkways will be level with the top of the rehabilitated seawall and will connect to existing pedestrian walkways to provide a seamless and accessible route around the Tidal Basin that will benefit bicyclists and pedestrians. Thus, the proposed</p>

Concern Statement	Response
	improvements to the existing seawall and walkways will improve visitor enjoyment, safety, and circulation once construction is complete and the work areas are reopened to the public. Further information on walkway improvements can be found in Chapter 2 of the EA under discussion of the Proposed Action. Additionally, details on the current and anticipated visitor experience following implementation of the Proposed Action can be found under <i>Visitor Use and Experience</i> in the EA (pp. 34-38).
Maintaining use of recreational areas during construction.	Construction staging and laydown areas proximate to the work areas are necessary to facilitate safe and efficient construction. Given the site constraints surrounding the Tidal Basin, two existing softball fields and a portion of the larger open recreational area at West Potomac Park would be displaced during construction. The NPS, however, would phase construction activities so that only smaller portions of the overall project area would be inaccessible to visitors at any given time. Once the construction process is complete, all features and amenities of West Potomac Park would be re-established. Figures 9 and 10 in the EA depict the proposed construction staging areas. Additional discussion on recreational impacts during construction can be found on p. 36 of the EA under <i>Visitor Use and Experience</i> .

## FLOODPLAINS

Concern Statement	Response
The EA does not provide detailed analysis of potential flooding impacts from seawall rehabilitation on the memorials and monuments within the Tidal Basin, including the FDR Memorial.	The NPS has undertaken numerous studies for this project and has determined there would not be an increased flood risk resulting from partial seawall rehabilitation on the memorials and monuments around the Tidal Basin, including the FDR Memorial. Flooding in Washington, DC can occur by swelling of the Potomac River or by localized rainfall events. The Potomac River and the Tidal Basin are part of a joint, open system because there are currently no effective flood controls



Concern Statement	Response
	<p>separating the two water bodies. Therefore, the height of the water within the Potomac River matches very closely the height of the water within the Tidal Basin. As the water levels rise above the crest elevation of the seawalls, the flood waters extend to the corresponding height along the shoreline. The Proposed Action includes heightening an existing seawall section to provide additional protection from flood water up to its new crest elevation. Prevention of overtopping along the seawalls within the project area does not increase the height of the Tidal Basin and Potomac River waters as there is negligible effect on the floodplain. Flood waters will continue to extend to the corresponding elevation along the shoreline. The Proposed Action includes heightening and grading the land behind the seawalls to promote positive surface drainage of stormwater into the Potomac River and the Tidal Basin. The design eliminates areas of negative drainage or ponding of water within the project area. Stormwater runoff and ponding outside of the project area will not be affected by the Proposed Action. The NPS has previously communicated this information to consulting parties and has addressed these concerns directly. Additional discussion on water resources can be found in the EA under <i>Water Resources</i> (pp. 39-42). Further, the NPS' consideration of floodplain impacts is discussed on p. 6 of the EA.</p>

**CUMULATIVE IMPACTS**

Concern Statement	Response
<p>The EA does not evaluate cumulative impacts on stormwater management.</p>	<p>The Proposed Action would have no significant adverse direct, indirect, or cumulative impacts on stormwater activity in or near the project area. The rehabilitated seawall would significantly reduce the frequency of overtopping events, and associated grading will prevent water from ponding; thereby reducing the frequency and volume of sediment discharges from behind</p>

Concern Statement	Response
	<p>the seawalls and soil and sediment erosion into the Potomac River and Tidal Basin. Stormwater within the project area is primarily accommodated through positive surface drainage into the Potomac River and the Tidal Basin. The Proposed Action includes repair and re-establishment of storm drains located along the east side of the Tidal Basin between the Jefferson Memorial and Inlet Gate which discharge through the seawalls. Prior to implementation, all erosion and sediment control practices would be reviewed and approved by the NPS and Department of Energy and Environment (DOEE), and all necessary permits and approvals would be obtained. As the Proposed Action would not result in long-term adverse impacts on stormwater, it would not contribute toward any adverse cumulative impacts on stormwater when taken into consideration with other planned projects in the study area. Cumulative impacts on water resources are discussed on pp. 41-42 of the EA.</p>
<p>The EA does not evaluate cumulative impacts on floodplains from the Proposed Action and the 2012 raising of seawalls around the Jefferson Memorial.</p>	<p>Table 2 in the EA discusses the Thomas Jefferson Memorial Seawall Repair project. A cumulative analysis on flood impacts was not conducted because the Proposed Action would have no impact on flooding in the project area. Past actions are considered in the cumulative analysis if they have ongoing impacts that are presently occurring; therefore, the Thomas Jefferson Memorial Seawall Repair project as a cumulative action was considered in the context of cultural resources (see p. 34 of the EA) and visitor use (see p. 38 of the EA).</p>
<p>The EA does not evaluate future sea level rise as a cumulative impact consideration.</p>	<p>A cumulative analysis takes into consideration the incremental effects of the Proposed Action in consideration with past, present, and reasonably foreseeable future actions. Future sea level rise resulting from natural occurrence (i.e., climate change) does not warrant a cumulative analysis, and is, instead, considered as part of baseline</p>

Concern Statement	Response
	<p>conditions. The NPS has taken into heavy consideration the potential of future sea level rise on this project based on previous studies. As a result, the NPS has designed the rehabilitated seawall in a manner that allows for future resiliency while balancing the need for cultural resource protection and reducing nuisance flooding. The new foundation of the seawall will allow additional capacity for the walls to be extended vertically in response to future sea level rise or changing climate patterns (see p. 10 of the EA). In the event it is deemed the seawall must be raised in the future, the NPS will conduct an additional evaluation at that time. The NPS' consideration of climate change impacts is discussed on p. 7 of the EA under <i>Greenhouse Gases/Climate Change</i>.</p>

## CULTURAL RESOURCES

Concern Statement	Response
<p>The EA should address the entire Tidal Basin area as one cultural landscape in its evaluation of cultural and historic impacts.</p>	<p>The NPS is prioritizing rehabilitation of sections of the seawall in most need of repair, including areas where the top of the seawall is at the lowest elevation, resulting in frequent nuisance flooding that is adversely affecting the cultural landscape. Due to funding and schedule considerations, and varied top of wall elevations, the scope of this project does not include the entire Tidal Basin. As part of consultation under Section 106 of the National Historic Preservation Act, the Advisory Council on Historic Preservation, National Capital Planning Commission, and DC Historic Preservation Office have concurred that the Proposed Action will have no adverse effect on adjacent memorials or monuments around the Tidal Basin. The NPS will continue coordination with consulting parties as appropriate regarding cultural resource concerns. The NPS' detailed analysis of potential cultural and historic impacts can be found on pp. 25-34 of the EA under <i>Historic Resources and Cultural Landscapes</i>. Additional information on consultation and</p>

<b>Concern Statement</b>	<b>Response</b>
	coordination efforts can be found in Chapter 4 of the EA.

**AGENCY COORDINATION**

<b>Concern Statement</b>	<b>Response</b>
It is recommended the applicant continue to coordinate with relevant stakeholders as the project advances.	The NPS will continue to coordinate with agencies and stakeholders as appropriate throughout project planning and design. Additional information on consultation and coordination efforts can be found in Chapter 4 of the EA.