



# George Washington Memorial Parkway South Section and Mount Vernon Trail Improvements Plan

Environmental Assessment

September 2023





As the nation’s principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historical places; and providing for the enjoyment of life through outdoor recreation. The department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The department also has a major responsibility for American Indian reservation communities and for people who live in island territories under US administration.

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You may also mail written comments postmarked by October 19, 2023, to:

Superintendent  
Attention: South Section and Trail Plan / EA Comments  
George Washington Memorial Parkway  
700 George Washington Memorial Parkway  
McLean, Virginia 22101

Before including personal identifying information in your comment, you should be aware that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

#### ON THE COVER

Aerial view of the George Washington Memorial Parkway South Section and inset photographs of the Mount Vernon Trail at Lady Bird Johnson Park (left) and Gravelly Point (right).



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## ACRONYMS AND ABBREVIATIONS

AASHTO	American Association of State Highway and Transportation Officials
ABAAS	Architectural Barriers Act Accessibility Standards
ADT	Average Daily Traffic
AOE	Assessment of Effects
APE	Area of Potential Effects
ATSDR	Agency for Toxic Substances and Disease Registry
BMP	Best Management Practices
CDC	Centers for Disease Control and Prevention
CEJST	Climate and Economic Justice Screening Tool
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CG-T	Continuous Green-T
CIA	Central Intelligence Agency
CLI	Cultural Landscape Inventory
dbh	diameter at breast height
DC HPO	District of Columbia Historic Preservation Office
DC	District of Columbia
DOEE	District Department of Energy and Environment
EA	Environmental Assessment
EJ Screen	Environmental Justice Screening and Mapping Tool
ESC	Erosion and Sediment Control
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
GWMP	George Washington Memorial Parkway
IPaC	Information for Planning and Consultation
LOS	Level-of-Service
MP	Mile Post
National Register	National Register of Historic Places
NCPC	National Capital Planning Commission

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NEPA	National Environmental Policy Act of 1969
NHPA	National Historic Preservation Act
NPS	National Park Service
NWI	National Wetlands Inventory
Parkway	George Washington Memorial Parkway
PEPC	Planning, Environment and Public Comment
Plan	George Washington Memorial Parkway South Section and Mount Vernon Trail Improvements Plan
PROWAG	Public Rights-of-Way Accessibility Guidelines
RMA	Resource Management Area
RPA	Resource Protection Area
RRFB	Rectangular Rapid Flashing Beacons
<b>Secretary's Standards</b>	<b>Secretary of the Interior's Standards for the Treatment of Historic Properties</b>
SVI	Social Vulnerability Index
Trail	Mount Vernon Trail
TRI	Theodore Roosevelt Island
US	United States
USC	United States Code
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
V-CRIS	Virginia - Cultural Resource Information System
VDCR	Virginia Department of Conservation and Recreation
VDEQ	Virginia Department of Environmental Quality
VDHR	Virginia Department of Historic Resources
VDOT	Virginia Department of Transportation
VDWR	Virginia Department of Wildlife Resources
Volpe Center	Volpe Center of the United States Department of Transportation
VPDES	Virginia Pollutant Discharge Elimination System



## PURPOSE AND NEED

### PROPOSED ACTION

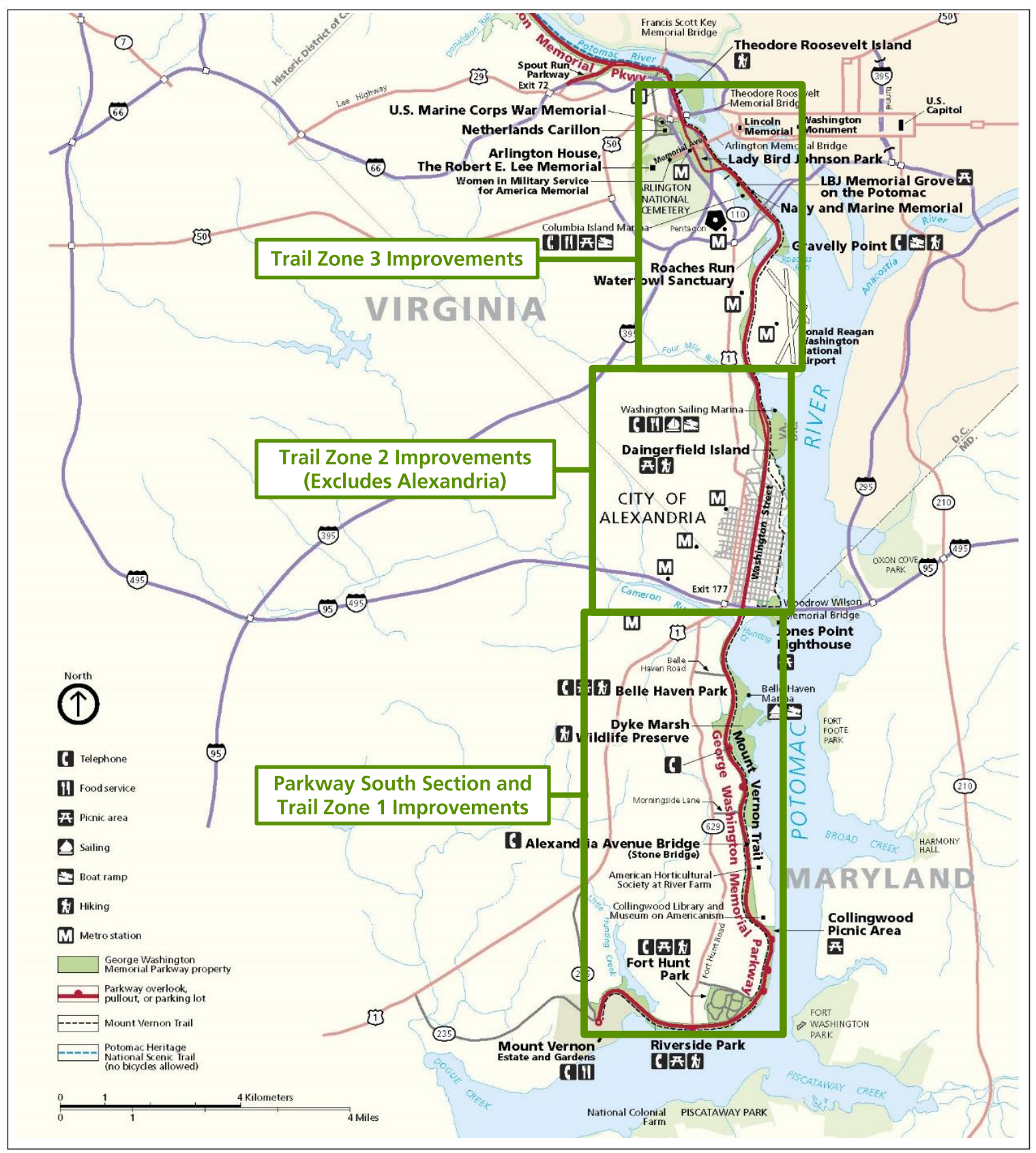
The National Park Service (NPS), in cooperation with the National Capital Planning Commission (NCPC), has developed this George Washington Memorial Parkway (Parkway) South Section and Mount Vernon Trail (Trail) Improvements Plan (Plan) to guide future actions to improve the roadway and trail while maintaining the scenic and historic character of the Parkway. Figure 1 presents the general limits of the proposed improvements.

The proposed Plan implementation would rehabilitate and include safety improvements to the South Section of the Parkway from Mount Vernon north to Hunting Creek Bridge just south of the City of Alexandria, Virginia (Figure 2). The Parkway South Section, one of the most heavily used roadways in the NPS, is approximately 8.5 miles in length. This Plan involves comprehensive rehabilitation to restore the historic 1932 roadway and drainage system for the first time, including complete replacement of the deteriorated road surface (concrete slabs), repairs or replacement of drainage structures, establishment of clear zones, and rehabilitation of four bridges. In addition, the Plan includes implementation of a permanent road diet, bicycle/pedestrian crosswalks, and other roadway and intersection improvements. A road diet is a roadway modification that can reduce speeds without changing the number of vehicles on the roadway, making it a safety improvement that is sensitive to the historic character of the Parkway. Crosswalks would be designed in accordance with the Public Rights-of-Way Accessibility Guidelines (PROWAG) to comply with the Architectural Barriers Act Accessibility Standards (ABAAS).

The Plan also includes rehabilitation and safety improvements to the Trail across all NPS-administered sections. The Trail has been divided into three management zones for planning purposes. Zone 1 includes the Trail section south of Alexandria, Virginia, from Mount Vernon to the Hunting Creek Bridge in Fairfax County, Virginia (Figure 2). Zone 2 consists of the trail section from the Hunting Creek Bridge to the Four Mile Run Bridge in the City of Alexandria, Virginia (Figure 3). Zone 3 includes the Trail section from the Four Mile Run Bridge to the Theodore Roosevelt Island (TRI) parking lot in Arlington County and Washington, District of Columbia (DC) (Figure 4). The NPS does not administer the entire Zone 2 section of the Trail, which is partially under the jurisdiction of the City of Alexandria. The NPS has therefore excluded portions of Zone 2 from this Plan.

The Trail is one of the most heavily used multi-use trails in the country. It is a very popular recreation resource and critical regional alternative transportation link that hosts over one million pedestrians and bicyclists annually. The Plan involves rehabilitation of the Trail; geometric changes, such as trail realignment and widening; trail bridge replacement or rehabilitation; trail intersection treatments; drainage improvements; vegetation management; and other trail amenities to improve safety and the visitor experience and to extend the service life of the Trail and minimize future maintenance requirements.

The NPS has prepared this Environmental Assessment (EA) to assess the potential environmental impacts of implementing the Parkway South Section and Trail Improvements Plan in accordance with the National Environmental Policy Act of 1969 (NEPA); the Council on Environmental Quality's (CEQ) regulations for implementing NEPA (40 Code of Federal Regulations [CFR] 1500-1508); United States (US) Department of the Interior NEPA regulations (43 CFR 46); NPS Director's Order 12: *Conservation Planning, Environmental Impact Analysis, and Decision-Making*; and the NPS NEPA Handbook (NPS 2015).



**GEORGE WASHINGTON MEMORIAL PARKWAY  
SOUTH SECTION AND MOUNT VERNON TRAIL  
IMPROVEMENT PLAN / ENVIRONMENTAL ASSESSMENT**



**Figure 1. General Limits of the Parkway South Section and Mount Vernon Trail Improvements**



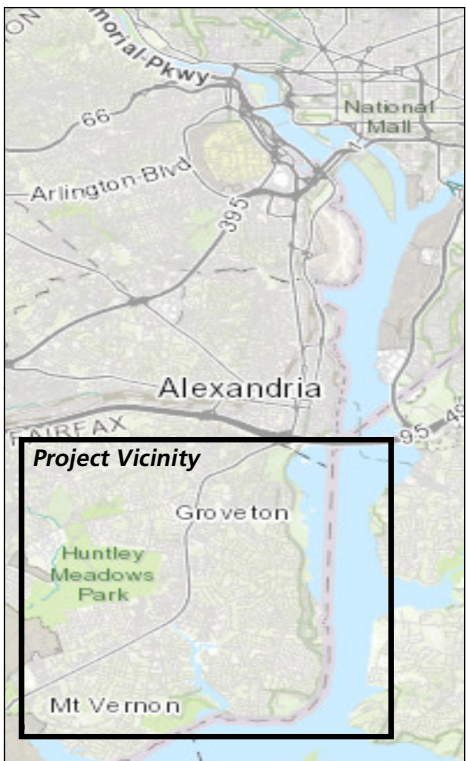
## PURPOSE OF AND NEED FOR ACTION

The purpose of the Plan is to develop a strategy that addresses deferred maintenance and safety issues along the Parkway South Section and the Trail sections north and south of Alexandria.

This Plan is needed to help preserve the historic parkway for future generations, improve the visitor experience, reduce annual park operations and maintenance costs, and improve visitor safety. The NPS has not comprehensively rehabilitated the Parkway South Section since its original construction in 1932. The NPS completed a corridor-wide pavement restoration in 1986 that involved repairing concrete slabs and replacing those that were beyond repair. The existing pavement has received only minor spot repairs since then, and recent inspections have rated **the concrete pavement as being in overall “fair” condition** with several segments that are in poor condition. Accelerating deterioration of the pavement and joints, and undermining caused by poor drainage conditions, are requiring frequent maintenance, such as interim asphalt patching. Based on these conditions, the NPS needs to replace the concrete pavement on the Parkway South Section with new concrete because it has reached the end of its useful life.

This Plan is also needed to address deteriorating conditions along the Trail. Constructed in the 1970s and 1980s by NPS before there were accepted trail standards, the Trail is relatively narrow and is characterized by meandering curves (some with steep down grades and poor sight distance), deteriorating pavement and timber bridges, and in some areas dense overhanging vegetation that result in the potential for user conflicts and crashes to occur. Growing usage of the Trail, particularly during commuting periods, contributes to trail crowding, user conflicts, and crashes. The asphalt trail surface has also deteriorated, and tree roots uplifting the Trail are causing safety concerns.

To support the need for developing this Plan, and to identify the issues to be resolved by implementing this Plan, the NPS procured the services of the Federal Highway Administration (FHWA) to complete a *George Washington Memorial Parkway: Traffic and Safety Context Sensitive Solutions Assessment* (2021). In addition, the NPS procured the services of the Volpe Center of the United States Department of Transportation (Volpe Center) to complete a *Mount Vernon Trail Corridor Study* (2020). The *George Washington Memorial Parkway: Traffic and Safety Context Sensitive Solutions Assessment* and the *Mount Vernon Trail Corridor Study* are available for public review at the NPS Planning, Environment and Public Comment (PEPC) website: [Park Planning GWMP South \(nps.gov\)](https://www.nps.gov/planning/gwmp-south). The following sections briefly summarize these technical studies, including the recommendations to address deferred maintenance and safety.



**Legend**

- Mount Vernon Trail
- Excluded Trail Section
- George Washington Memorial Parkway
- Park Boundary
- Traffic and Safety Assessment Intersections



**Project Location**

George Washington Memorial Parkway  
Washington, DC and Virginia

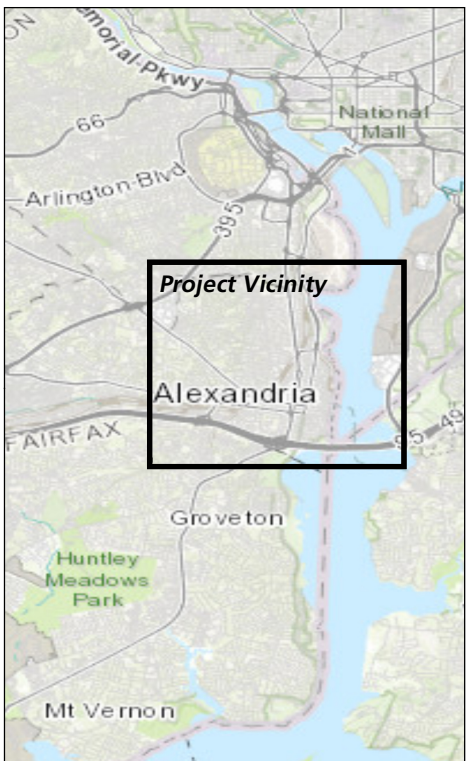
**Project**

South Section and Mount Vernon Trail Improvements  
Plan and Environmental Assessment

**Figure 2. Limits of Parkway South Section and Mount Vernon Trail Zone 1 Improvements**

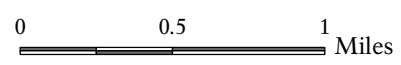






**Legend**

- Mount Vernon Trail
- - - Excluded Trail Section
- Park Boundary



**Project Location**

George Washington Memorial Parkway  
Washington, DC and Virginia

**Project**

South Section and Mount Vernon Trail Improvements  
Plan and Environmental Assessment

**Figure 3. Limits of Mount Vernon Trail Zone 2 Improvements**

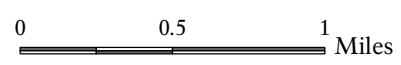






**Legend**

- - - Mount Vernon Trail
- - - Mount Vernon Trail DC Section
- Park Boundary



**Project Location**

George Washington Memorial Parkway  
Washington, DC and Virginia

**Project**

South Section and Mount Vernon Trail Improvements  
Plan and Environmental Assessment

**Figure 4. Limits of Mount Vernon Trail Zone 3 Improvements**



## TRAFFIC AND SAFETY CONTEXT SENSITIVE SOLUTIONS ASSESSMENT

The NPS, with support from transportation safety professionals from multiple local, state, and federal agencies, including the FHWA, conducted a traffic and pedestrian safety assessment in 2021 to investigate traffic and operational issues and develop context sensitive solutions to make improvements while maintaining the scenic and historic character of the Parkway South Section. Stakeholders, elected officials, and the public were engaged during the assessment.

The assessment focused on nine intersections along the Parkway South Section, including Belle Haven Road, Belle View Boulevard, Tulane Drive, Morningside Lane, Wellington Road, Collingwood Road, Waynewood Boulevard, Vernon View Drive, and Stratford Lane. Figure 2 provides the location of each intersection. The NPS collected data on traffic control at intersections, locations of transit bus stops in the corridor, locations of pedestrian and bicycle facilities, traffic counts, observed speeds, traffic capacity, queuing (the line of vehicles waiting to turn onto the Parkway), stop delay, and parking lot capacity. Additionally, the NPS analyzed data for 389 reported crashes that occurred during 2005-2015 and 2018-2019 along the Parkway South Section.

The assessment determined that heavy commuter traffic volumes and high travel speeds create challenges for vehicular traffic traveling between sites, commuters accessing the Parkway from adjacent neighborhoods, and pedestrians and bicyclists crossing the Parkway to access recreational facilities, bus stops, and the Trail. The assessment identified potential geometric and traffic operation modifications, such as roundabouts, road diet, access management, and longitudinal rumble/mumble strips, along with education and enforcement, that may assist with clarifying rights-of-way and reducing speeds along the Parkway South Section. Enhanced signs/pavement markings, lighting, rumble strips/mumble strips, and roadway maintenance such as selective repaving, vegetation trimming, and drainage cleaning were also presented in the assessment as minor engineering measures to improve safety along the Parkway South Section.

## MOUNT VERNON TRAIL CORRIDOR STUDY

In 2020, the Volpe Center conducted *The Mount Vernon Trail Corridor Study* to identify opportunities to improve the Trail based on an analysis of trail condition, safety concerns, users' needs, and resource management considerations. The study was the first comprehensive analysis of the design, condition, usage, and crash history of the Trail corridor, and was intended to inform park operations and maintenance needs, as well as identify short- and long-term capital projects to improve the visitor experience. The study concluded with a wide range of recommendations covering safety, signage, trail connections, user counting programs, project cost estimates, internal and external funding opportunities, pavement and bridge maintenance, and vegetation management. Recommendations for capital projects included reconstructing the Trail due to the poor condition of the trail surface and bridges, widening the trail and bridges to meet current American Association of State Highway and Transportation Officials (AASHTO) multi-use trail standards where feasible, making trail intersection / crossing improvements to reduce conflict points, bicycle-pedestrian separation at areas which have high levels of user conflict and pedestrian use (e.g., Gravelly Point), and trailhead improvements.



## PURPOSE AND SIGNIFICANCE OF THE GEORGE WASHINGTON MEMORIAL PARKWAY

The Parkway runs along the Potomac River through Virginia and Washington, DC, extending from Mount Vernon at the southern end to I-495 / Capital Beltway at the northern end. The Parkway is a scenic roadway **that serves as a memorial to the nation's first president** and protects and preserves cultural and natural resources along the Potomac River while offering magnificent scenic vistas of Washington, DC, Great Falls, and the Potomac Gorge. The Parkway is also a key transportation artery in northern Virginia, providing access to Washington, DC, Arlington County, Fairfax County, and the City of Alexandria. Along its route, the Parkway connects several important historic sites, memorials, and scenic and recreation areas in the Washington, DC metropolitan area, and provides a variety of experiences to more than 10 million people per year.

The incredibly rich history of these sites is not yet fully represented in enabling legislation, periods of significance, or other guiding documents. This EA draws on these documents while simultaneously acknowledging that parts of them are outdated. Moving forward, the Park is prioritizing numerous stories of under-represented groups, including but not limited to: Indigenous connections to the lands now managed as the Parkway, colonialism, chattel slavery on and beyond plantations, Alexandria as an epicenter of human trafficking, the network to freedom, the US Colored Troops, reconstruction, Jim Crow laws, segregation, the MIS-X and MIS-Y missions during WWII, and contemporary connections with descendant communities.

Congress designated the Parkway as a unit of the national park system on May 29, 1930, through Public Law 71-284. The Parkway was designed as both a transportation route and a means to preserve and enhance the natural scenic qualities and cultural attributes along the Potomac River (Mackintosh 1996). The Parkway idea came about as several influences that combined in the early-20<sup>th</sup> century, including the rising use of the automobile, the suburbanization of the Washington metropolitan area, the City Beautiful movement, and the popularity of outdoor recreation and ideals of conservation (Leach 1990).

The Parkway was constructed in two stages between 1929 and 1970. The first section, completed in 1932 and called the Mount Vernon Memorial Highway **to commemorate the bicentennial of George Washington's** birth, begins at the Arlington Memorial Bridge, continues through the City of Alexandria, and terminates at Mount Vernon. The Mount Vernon Memorial Highway pioneered many principles of roadway design including limited access construction, grade-separated intersections, cloverleaf interchanges, and landscape design. It is based on the idea of a landscaped, park-like roadway corridor that protected riverfront lands. The Mount Vernon Memorial Highway, which is called the Parkway South Section for the purposes of this Plan, was listed in the National Register of Historic Places (National Register) in 1981 under criterion B for its commemoration of George Washington and under criterion C for landscape architecture (NPS 1981).

The north section of the Parkway, from Arlington Memorial Bridge to I-495, was built in stages starting in the 1940s and reached completion in 1962. Following the passage of the Capper-Cramton Act and completion of the Parkway South Section, progress on the Parkway proceeded slowly for the next two decades, partly due to the Great Depression and then World War II. During this time, Frederick Law Olmsted, Jr. worked on the design of the Parkway with other landscape architects, including those from the National Capital Parks and Planning Commission and the US Commission of Fine Arts, as land acquisition continued. It was not until the mid-1950s that notable progress began on the Parkway resulting in part because of the plans to move the Central Intelligence Agency (CIA) to Fairfax County. By 1959, the road was completed north to the CIA interchange (Mackintosh 1996). By the end of 1962, the Parkway was extended to the Capital Beltway. The north section displayed the latest in road engineering methods for its time—a

wide, gently curving roadway with a grassy median, low stone guide walls, and soaring steel-and-concrete arched bridges. Although originally envisioned as extending to Great Falls, the Parkway never reached beyond the Capital Beltway. The north section of the Parkway was listed in the National Register in 1995 under the same criteria as the Parkway South Section (NPS 1995a).

## ISSUES AND IMPACT TOPICS RETAINED FOR DETAILED ANALYSIS

The NPS determined that the following issues and impact topics identified during project planning warranted detailed analysis in this EA.

### Visitor Use, Experience, and Safety

Construction of the proposed Parkway and Trail improvements may cause temporary disruption, including possible travel delays for commuters and visitors caused by roadway lane closures, trail closures, detours, shifts in traffic patterns, and access limitations to park sites and facilities. However, the NPS anticipates that implementing the proposed Plan would improve safety by reducing travel speeds on the Parkway, redesigning the intersections, improving vistas, establishing clear zones, establishing formal pedestrian crossings, reducing flooding caused by poor drainage, widening the Trail, and improving road-to-trail and trail-to-trail intersections, as well as eliminating sharp curves and high potential conflict areas. These issues are analyzed under the *Visitor Use, Experience, and Safety* impact topic.

### Vegetation

Improvements to the Parkway and Trail would require disturbance to vegetation, including tree removal. Additionally, several state-listed rare plants in Virginia are known to occur in Dyke Marsh Wildlife Preserve and in marshes at Little Hunting Creek that could be affected by Plan implementation. Ground disturbance within natural areas may also result in the introduction of non-native invasive plant species. These issues are analyzed under the *Vegetation* impact topic.

### Wildlife and Habitat

The proposed Parkway and Trail improvements would result in tree removal and other vegetation clearing that could reduce or alter available habitat for wildlife. Additionally, the federally endangered northern long-eared bat (*Myotis septentrionalis*), proposed endangered tricolored bat (*Perimyotis subflavus*), and numerous migratory bird species have the potential to be affected by Plan implementation. These issues are analyzed under the *Wildlife and Habitat* impact topic.

### Historic Districts and Cultural Landscapes

The proposed Parkway and Trail improvements would occur within several nationally significant historic districts that are listed, or eligible for listing in the National Register and within several NPS-designated cultural landscapes. Construction activities could remove vegetation and modify existing infrastructure that are character-defining features of historic districts and / or elements that contribute to the significance of cultural landscapes. New non-contributing elements may also be added into historic districts and cultural landscapes. These issues are analyzed under the *Historic Districts* and *Cultural Landscapes* impact topics.

## Archeological Resources

According to a *Phase IA Archaeological Overview for the Proposed Rehabilitation of the George Washington Memorial Parkway (South Section) and Mount Vernon Trail* (New South Associates, Inc. 2023), 9.5 miles of the Parkway and the Trail have potential for the presence of archeological resources, the majority of which is located south of Alexandria. Additionally, 14 previously recorded archeological sites registered in the Virginia - Cultural Resource Information System (V-CRIS) are located within 250 feet of the Parkway and within 50 feet of the Trail, two of which are potentially eligible for listing in the National Register. As such, construction could disturb known archeological resources and other areas of high archeological potential. These issues are analyzed under the *Archeological Resources* impact topic.

## ISSUES AND IMPACT TOPICS DISMISSED FROM DETAILED ANALYSIS

The NPS has dismissed the following issues and associated impact topics from detailed analysis for the reasons provided.

### Water Quality

Implementation of the proposed Parkway South Section and Trail Improvements would result in ground disturbance from limited grading, vegetation clearing, and other construction activities. In Virginia, some of this construction-related disturbance would occur within Chesapeake Bay Preservation Areas, which are areas that have the potential to cause direct impacts to water quality of the Chesapeake Bay and its tributaries. Chesapeake Bay Preservation Areas are further classified as Resource Protection Areas (RPA) and Resource Management Areas (RMA). A review of RPA mapping made publicly available by Fairfax County, the City of Alexandria, and Arlington County has determined that portions of the Parkway and Trail are within the Potomac River RPA, Little Hunting Creek RPA, Hunting Creek RPA, and Four Mile Run RPA, or within the RMAs associated with the RPAs.

Projects in an RPA or RMA must adhere to general performance criteria with respect to minimizing land disturbance (including access and staging areas), retaining existing vegetation, and minimizing impervious cover. As such, the NPS would prepare Erosion and Sediment Control (ESC) Plans for approval by the Virginia Department of Environmental Quality (VDEQ) to comply with the *Chesapeake Bay Preservation Area Designation and Act and Management Regulations*, Virginia's *Erosion and Sediment Control Law and Regulations*, and the *Virginia Erosion and Sediment Control Handbook*. ESC Plans for work in Washington, DC would be submitted to the District Department of Energy and Environment (DOEE) for approval prior to construction to comply with the *2013 Rule on Stormwater Management and Soil Erosion and Sediment Control* and the *District of Columbia Erosion and Sediment Control Manual*. The NPS would also register for National Pollutant Discharge Elimination System and / or Virginia Pollutant Discharge Elimination System permit coverage for stormwater discharges from construction activities, and would develop a project-specific Stormwater Pollution Prevention Plan that addresses water quality treatment and quantity management **in accordance with the District's 2013 Rule on Stormwater Management and Soil Erosion and Sediment Control** and the *Virginia Stormwater Management Program Regulations*, as applicable.

The NPS conducted a preliminary stormwater management analysis to establish a planning level estimate of the anticipated volumes of stormwater that would need to be captured and treated for both the Parkway and Trail improvements. The analysis was based primarily on estimated increases or decreases in impervious surface following the applicable procedures used to calculate stormwater management requirements in Virginia and the District. Impervious surface is expected to decrease from 2,202,309 square feet (50.6 acres)

to 2,193,264 square feet (50.4 acres) on the Parkway. Although the NPS plans to construct several new pedestrian paths that would result in new impervious surface, proposed pavement removal within the median and along the outer curbs at several intersections would result in a net decrease in impervious surface area along the Parkway South Section. Along the Trail, impervious surface is expected to increase from 723,546 square feet (16.6 acres) to as much as 927,773 square feet (21.3 acres), primarily due to proposed trail widening. Table 1 provides a summary of estimated impervious surface calculations for the Parkway and Trail improvements.

Table 1. Summary of Estimated Impervious Surface Increases

Watershed	Hydrologic Unit Code	Jurisdiction	Existing Impervious	Proposed Impervious
Parkway				
Cameron Run – Potomac River	0207001003	Virginia	2,202,309 square feet (50.6 acres)	2,193,264 square feet (50.4 acres)
		TOTAL =	2,202,309 square feet (50.6 acres)	2,193,264 square feet (50.4 acres)
Trail				
Rock Creek – Potomac River	0207001001	Virginia	135,981 square feet (3.1 acres)	182,232 square feet (4.2 acres)
Rock Creek – Potomac River	0207001001	District of Columbia	62,625 square feet (1.4 acres)	89,498 square feet (2.0 acres)
Cameron Run – Potomac River	0207001003	Virginia	524,940 square feet (12.1 acres)	656,043 square feet (15.1 acres)
		TOTAL =	723,546 square feet (16.6 acres)	927,773 square feet (21.3 acres)

The preliminary analysis within Virginia estimated that approximately one-quarter of the stormwater management quantity requirements would be for the Parkway, and the remainder of the quantity requirements would be for the Trail improvements. Stormwater management volume estimates were calculated using detention requirements to reduce post-construction runoff volume below pre-construction runoff volume per the *Virginia Stormwater Management Program Regulations*. The total storage volume estimated for Virginia was approximately 75,000 cubic feet to address water quantity requirements. The water quality requirements in Virginia were estimated using preliminary Virginia Runoff Reduction Methodology analysis. Based on the preliminary review by Hydrologic Unit Code, the total phosphorous reduction required for the project is approximately 35 pounds per year.

The preliminary analysis within the District boundaries estimated that approximately 10,000 cubic feet of stormwater quantity management would be required due to the Trail improvements proposed within the District. The water quality requirements in the District were estimated following the methods outlined in the *Minimum Control Requirements and Methods detailed in the District’s Stormwater Management Guidebook*. **These requirements state that “the first flush runoff must be treated by filter media, natural percolation, detention or extended detention or an equivalent process within 48 hours, then released.”** The preliminary analysis estimated that approximately 4,000 cubic feet of water quality volume would need to be captured and treated to meet the first flush requirement.

The NPS would prepare Stormwater Management Plans for VDEQ approval to comply with the *Virginia Stormwater Management Program Regulations*, and the *VDEQ Stormwater Management Guidebook*. In the District, Stormwater Management Plans would be submitted to DOEE for approval to comply with the *2013 Rule on Stormwater Management and Soil Erosion and Sediment Control*, and the *District of Columbia Stormwater Management Guidebook*. The NPS would incorporate stormwater management best management practices (BMPs) and other quantity control and quality treatment features into project designs and construction to address the increase of impervious surface, the associated reduction of the groundwater infiltration capacity of the project site, and the possible risk from erosional forces caused by increased flow rates. BMPs would be sited to minimize the limits of disturbance and impacts to surrounding areas. Possible BMPs may include underground detention, grassed swales / channels, porous or permeable pavement, bio-retention filters, filtering systems, infiltration BMPs, open channel systems, impervious surface disconnection, and other nature-based solutions. The NPS expects that the increase in impervious surface, and thus the estimated stormwater management volume capacity, may decrease as the project designs are developed and refined, and since trail widening may not occur in areas where physical or environmental constraints may be too impactful.

Overall, the NPS anticipates that properly implementing and maintaining ESCs during construction and providing stormwater quantity control and quality treatment using BMPs designed into the project would reduce soil erosion and decrease inputs of chemical nutrients and sediments to the Chesapeake Bay and its tributaries, resulting in minimal water quality impacts. The preliminary stormwater management analysis indicates that water quality treatment may be necessary due primarily to the Trail Improvements. BMPs proposed for water quantity control may also be used for water quality treatment, in addition to leveraging nature-based solutions to offset the effects of the increased impervious cover. Therefore, the NPS has dismissed *Water Quality* from further analysis.

## Wetlands

Executive Order 11990: *Protection of Wetlands* directs federal agencies to avoid long- and short-term adverse impacts associated with the destruction or modification of wetlands; avoid direct or indirect support of new construction in wetlands; minimize the destruction, loss, or degradation of wetlands; preserve and enhance the natural and beneficial values served by wetlands; and involve the public throughout the wetland protection decision-making process. The NPS complies with this Executive Order by implementing **Director's Order 77-1: *Wetland Protection*** and adherence to Procedural Manual 77-1: *Wetland Protection*. Wetlands have been documented to provide numerous valuable environmental benefits, including water purification, flood storage and protection, shoreline stabilization and erosion protection, groundwater recharge, and stream flow maintenance. Wetlands provide habitat for fish and wildlife and may also provide opportunities for recreation and aesthetic appreciation. Wetlands can also provide health and safety benefits by reducing flood damage and preserving water quality.

The **US Fish and Wildlife Service's (USFWS) National Wetlands Inventory (NWI)** program maintains an inventory of mapped wetlands across the country. The NWI provides mapping and classification of wetlands to support planning decisions made by landowners, developers, government agencies, and others. Mapping is primarily prepared through aerial image interpretation, in conjunction with collateral data sources and field surveys. The NPS reviewed the NWI mapping to preliminarily assess the potential that implementing the proposed Parkway South Section and Trail Improvements may cause disturbance to wetlands. In general, NWI-mapped wetlands in the vicinity of the proposed Parkway South Section and Trail



Improvements are those associated with the Potomac River and its tributaries. The NPS would conduct on-site wetland delineations during the design phase to determine the presence, extent, and classification of wetlands within the limits of disturbance for each project implemented as part of this Plan.

It is an NPS project objective to avoid impacts to wetlands as much as possible. However, based on the NWI mapping, construction access in wetlands may be required to rehabilitate / replace trail bridges, particularly Bridges 1, 9, and 28. In these instances, protective measures, including, but not limited to, temporary matting placed on top of the wetland during construction, would avoid permanent disturbance. The NPS would install new bridges that are replacing bridges in wetlands using helical piles at the same locations of the existing bridge footings to avoid wetland disturbance, where feasible. It may be determined during bridge design that new or additional footings may become necessary. The installation of bridge footings, where necessary, would result in a minimal amount of wetland impacts.

Materials and / or equipment would not be staged in wetlands, and construction access routes would be routed to further minimize impacts. Rehabilitation of Parkway bridges and culverts would be conducted using methods to avoid permanent wetland disturbance and minimize any temporary disturbance. Drainage improvements and stormwater management BMPs would also not occur within wetlands. The Trail would not be widened, or the alignment may be shifted at locations where environmental constraints, including wetlands, make it impossible to avoid permanent impacts. It should be noted that the NPS evaluated wetland impacts from replacing Trail Bridge 23 in Dyke Marsh Wildlife Preserve under a separate project. The bridge is slated for replacement in 2023.

The NPS would develop ESC Plans for VDEQ and / or DOEE approval prior to construction that would include a variety of BMPs to prevent sediment transport offsite and potentially into wetlands. The NPS would obtain the required authorizations and certifications in accordance with Sections 404 and 401 of the Clean Water Act prior to commencing any project implemented as part of this Plan. If necessary, the NPS would also prepare a **Wetland Statement of Findings in accordance with NPS Director's Order 77-1: Wetland Protection**. The Statement of Findings would describe compensatory mitigation proposed by NPS to ensure no net loss of wetlands and functional replacement. Therefore, the NPS has dismissed *Wetlands* from further analysis.

### Floodplains

Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps show that portions of the Parkway South Section and Trail are within the 100- or 500-year floodplain of the Potomac River or its tributaries. Floodplains provide a wide variety of water resource, biological, and societal functions that benefit natural environments and human society. Water resource functions of floodplains include natural flood storage, erosion control, groundwater recharge, and surface water quality treatment. Biological functions of floodplains include production export and protection of fish and wildlife habitats. Societal resources are the floodplain functions that benefit human society with harvestable products, recreational opportunities, and educational values. Floodplain vegetation can provide water quality treatment, support a wide variety of wildlife, and provide recreational opportunities.

Executive Order 11988 *Floodplain Management*, and Executive Order 13690 *Establishing a Federal Flood Risk Management Standard*, which amended 11988 on January 30, 2015, directs federal agencies to avoid to the extent possible the short- and long-term adverse impacts associated with the occupancy and modification of floodplains, to avoid direct or indirect support of floodplain development wherever there is a practicable

alternative, and to consider current or potential flood risk. To comply with these executive orders, the NPS has adopted **Director's Order 77-2: Floodplain Management** to preserve floodplain functions and values and minimize potentially hazardous conditions associated with flooding. **Director's Order 77-2** applies to proposed NPS actions, with some exceptions, that could increase flood risks, or adversely affect the natural function and values of floodplains.

Flood frequency and intensity can be used as an indicator of climate change. Flooding on the Parkway and Trail creates safety concerns and is damaging to park infrastructure. Numerous comments were received during public scoping citing concerns regarding flooding along both the Parkway and Trail. Additionally, a *Coastal Hazards and Climate Change Asset Vulnerability Assessment* completed by NPS for the Parkway and TRI in 2017, which evaluated the vulnerability of 95 structures (buildings, yurts, pavilions, barns, and sheds), 208 transportation assets (roads, overlooks, parking lots, primary trails, trail bridges, transportation storage, fuel systems, docks, marinas, and waterfront systems), and 39 road bridges, determined that 14% of Parkway and Trail assets have moderate vulnerability, and 18% are high vulnerability. The majority of the most vulnerable assets are in the central and southern sections of Parkway. Some of the most vulnerable assets that would be improved as part of this Plan include the Parkway South Section between Hunting Creek Bridge and Belle Haven, Little Hunting Creek Bridge, the Trail, and many of the trail bridges (Peek K. et al. 2017).

Making modifications to the Parkway and Trail to reduce flood risk is not within the scope of this Plan. However, the proposed action includes drainage improvements, stormwater management BMPs, and minor, localized, horizontal and / or vertical trail alignment changes. In conjunction, these improvements would mitigate for the reduced infiltration capacity at the site caused by the increase in impervious surface area and would be expected to reduce prolonged ponding on the road and trail surface. Additionally, the NPS would implement ESCs during construction to minimize temporary floodplain disturbances. The NPS would also minimize wildlife habitat loss within the floodplain by limiting vegetation removal and tree clearing to the extent it is needed for safety and to implement the proposed improvements.

Overall, the NPS anticipates that adverse impacts to the floodplain would not be noticeable since most of the work proposed to implement this Plan would involve rehabilitation and repairs to existing infrastructure. The proposed trail widening would increase impervious surface area; however, draining improvements, stormwater management BMPs, and limiting habitat loss would minimize impacts to floodplain functions and values. Therefore, the NPS has dismissed *Floodplains* from further analysis and a Floodplain Statement of Findings is not necessary to comply with **Director's Order 77-2: Floodplain Management**.

#### Air Quality Including Greenhouse Gas Emissions

Construction activities would generate emissions of volatile organic compounds and greenhouse gases such as nitrogen oxides from engine use associated with the operation of vehicles and equipment. Construction activities would also result in emissions of particulate matter (dust) and the rehabilitation and widening of the Trail would emit fumes during the application of hot mix asphalt surfaces. To minimize greenhouse gas emissions and impacts to air quality during construction, the NPS would encourage the construction contractor to limit equipment idling times and to employ fugitive dust controls.

Ambient air quality would return to pre-construction conditions once construction is complete. Traffic on the Parkway, and routine maintenance activities on the Parkway and Trail, would be similar to current conditions and would not generate greenhouse gas emissions that would have a noticeable contribution to climate change.

Overall, emissions generated by implementation of the proposed Plan would be minimal and temporary construction emissions would be the primary cause of any air quality impacts above existing conditions. Therefore, the NPS has dismissed *Air Quality including Greenhouse Gas Emissions* from further analysis.

### Environmental Justice

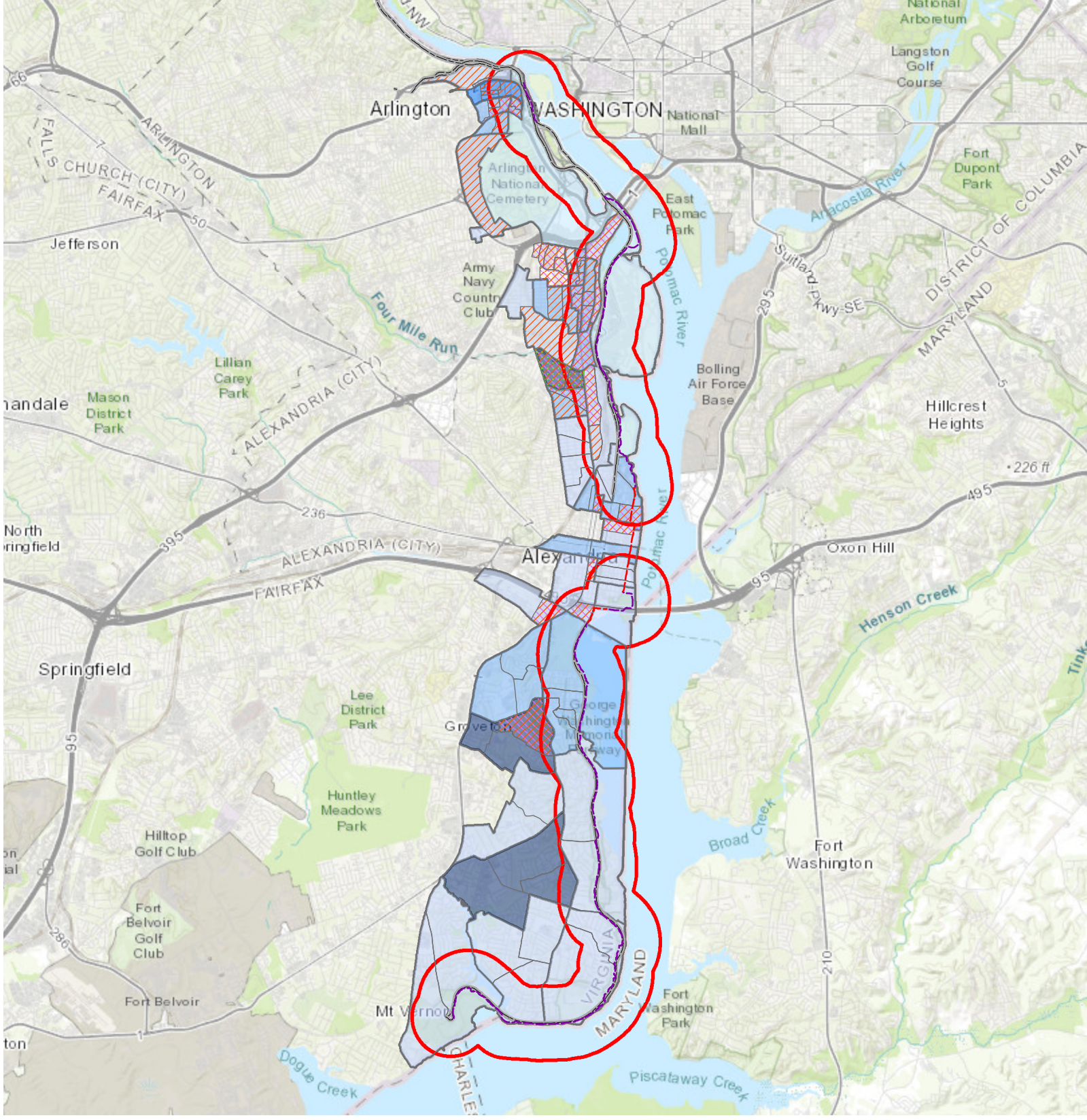
The USEPA defines **environmental justice** as the “. . .fair treatment and meaningful involvement of all people, regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations and policies.” **Executive Order 12898** *General Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* requires federal agencies to incorporate environmental justice into their missions by identifying and addressing the disproportionately high and / or adverse human health or environmental effects of their programs and policies on minorities and low-income populations and communities.

Communities near the Parkway contain minority and low-income populations. To determine the presence of potential Environmental Justice communities within a half-mile of the Parkway and Trail, the NPS used **the following screening tools: USEPA’s Environmental Justice Screening and Mapping Tool (EJ Screen), CEQ’s Climate and Economic Justice Screening Tool (CEJST), and the Centers for Disease Control and Prevention / Agency for Toxic Substances and Disease Registry’s (CDC / ATSDR) Social Vulnerability Index.**

**EJ Screen compares a community’s potential for exposure or risk to that of the state and the nation. Thirteen environmental indices are used to determine these risks: particulate matter, ozone, diesel particulate matter, air toxics cancer risk, respiratory hazard risk, toxic releases to air, traffic proximity, proximity to superfund sites, proximity to hazardous waste facilities, proximity to underground storage tanks, and wastewater discharge. Approximately 22 census block groups within a half-mile of the Parkway and Trail are in the 80<sup>th</sup> percentile for at least one of these indices when compared to the nation. When compared to the rest of the state, 36 census block groups within a half-mile exceed the 80<sup>th</sup> percentile for at least one of these indices (USEPA 2023). The locations of these census block groups identified using EJ Screen, as well as the census tracts identified by the CEJST and CDC / ATSDR Social Vulnerability Index, are presented on Figure 5.**

CEJST identifies communities that are disadvantaged due to burdens they face, including climate change, the environment, health, and economic opportunity. Categories of burden include climate change, energy, health, housing, legacy pollution, transportation, water and wastewater, and workforce development. Only one census tract was identified within a half-mile of the Parkway and Trail that is considered disadvantaged due to exceeding the thresholds for one or more of these burdens. The census tract is located near Four Mile Run Park in Alexandria and is considered disadvantaged with regards to climate change due to projected flood risk and workforce development because of linguistic isolation (CEQ 2022).



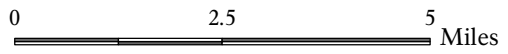


**Legend**

- Mount Vernon Trail
- Excluded Trail Section
- George Washington Memorial Parkway
- Census Tract
- Census Block Groups
- 0.5-mile Buffer
- Disadvantaged Communities (CEJST)
- EJ Screen - 80%ile (State)
- EJ Screen - 80%ile (Nation)

**Social Vulnerability Index (CDC/ATSDR)**

- No
- Low
- Low-Medium
- Medium-High
- High



**Project Location**  
George Washington Memorial Parkway  
Washington, DC and Virginia

**Project**  
South Section and Mount Vernon Trail Improvements  
Plan and Environmental Assessment

**Figure 5. Environmental Justice Communities**



The CDC/ATSDR Social Vulnerability Index uses census data to identify communities that are vulnerable to external stresses on human health, including natural disasters and outbreaks. Census tracts are ranked on their socioeconomic status, household characteristics, racial and ethnic minority status, and housing and transportation type to compare their vulnerability to that of the state and nation. Most of the census tracts within a half-mile radius of the Parkway and Trail have low or low to moderate social vulnerability; however, four census tracts within the half-mile buffer were determined to have medium-high to high social vulnerability (CDC/ATSDR 2022).

The NPS has dismissed concerns related to *Environmental Justice* from detailed analysis in this EA because the proposed action would not disproportionately affect any minority or low-income communities, or have a disproportionate effect on the accessibility and use of the Parkway or Trail for these populations; equal consideration was given to all public input from persons regardless of age, race, income status, or other socioeconomic or demographic factors; and the proposed action would not result in any identifiable adverse human health effects.



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## ALTERNATIVES

This section of the EA describes the no action alternative and the proposed action for rehabilitation and improvements to the Parkway South Section and Trail. The NPS developed the proposed action to resolve safety issues and address deferred maintenance using the assessments and studies described in Chapter 1 of this EA as a basis for the improvements. The NPS also used several design scoping reports and project scoping assessments, as well as comments received during public scoping, to develop the site-specific enhancements described. This section of the EA also describes several design-related options dismissed from further consideration.

### NO ACTION ALTERNATIVE

The no action alternative describes the action of continuing the present management operations and conditions. It does not imply or direct discontinuing the present action or removing existing uses, development, or facilities. The no action alternative provides a basis for comparing the management direction and environmental consequences of the proposed action. The NPS would respond to future needs and conditions associated with the roadway and trail without significant actions or changes in present course should the NPS select the no action alternative for implementation.

Under the no action alternative, the NPS would continue to maintain the Parkway South Section and Trail. Management actions would include the minimum rehabilitation and repairs necessary to maintain operation of the roadway and trail infrastructure and amenities. The concrete pavement of the Parkway South Section would continue to deteriorate, requiring frequent maintenance and spot repairs, and safety and drainage issues would continue to occur. FHWA would continue to conduct scheduled structural inspections of the roadway bridges to ensure they are safe for motorists. The NPS would conduct only minor structural repairs on the bridges under the no action alternative until comprehensive rehabilitation efforts are necessary that would occur under other future planning decisions. Along the Trail, deteriorating trail and bridge surfaces would require frequent maintenance and spot repairs, and the potential for user conflicts and crashes, as well as trail hazards, would continue to increase. The NPS may incorporate small-scale spot improvements or repairs on the Parkway or Trail as part of other future planning decisions.

### PARKWAY SOUTH SECTION AND MOUNT VERNON TRAIL IMPROVEMENTS (PROPOSED ACTION AND NPS PREFERRED ALTERNATIVE)

#### Parkway South Section – Roadway Infrastructure Improvements

The proposed action for the Parkway South Section includes complete replacement of the deteriorated concrete road surface, gutters, and mountable curbs where they are present. The NPS would resolve drainage issues by repairing or replacing drainage structures (e.g., culverts, ditches, drainpipes, and stormwater inlets), and would incorporate stormwater management BMPs to address water quantity management and water quality treatment, as needed. The NPS would rehabilitate four bridges, as needed, including the Little Hunting Creek Bridge, Fort Hunt Overpass Bridge, Alexandria Avenue Overpass Bridge, and Hunting Creek Bridge. Bridge-specific rehabilitations would be based on recommendations from inspections conducted by FHWA. Other actions include installing mumble strips, grading areas of steep shoulder drop off, replacing or resetting signs, installing milepost markers, vista improvement, and

establishing a clear zone beyond the edge of curb by removing trees and other vegetation that are encroaching on the Parkway. Existing guardrails would be replaced, and new guardrails would be installed at spot locations recommended by FHWA. Guardrails would also be installed in sections where the width between the roadway and Trail is narrow. In these instances, a handrail that meets AASHTO trail design guidelines would be affixed behind the guardrail. It is anticipated that steel-backed timber guardrails would be used for each of these applications. The mapping in Appendix C identifies many of the general and site-specific improvements included in the proposed action for the Parkway.

### Parkway South Section – Road Diet

The NPS is seeking to improve safety for people who drive, walk, and bicycle, which the NPS can best achieve by implementing multiple traffic calming solutions in conjunction with crosswalk improvements. To accomplish this, the NPS would implement a road diet, or roadway reconfiguration, along the Parkway South Section where feasible based on traffic modeling. Road diets generally involve restriping a roadway to remove a travel lane and repurposing the pavement for center median turn lanes, outside dedicated right or left-turn lanes, or road shoulder. Road diets are low-cost options that can yield substantial benefits, including enhanced safety, improved mobility, and the reclaiming of space for other uses such as emergency operations, maintenance, and maintenance of traffic. Road diets can also create opportunities to safely design crosswalks that avoid “double threat” crash scenarios without the need for new infrastructure. Double threat scenarios exist for pedestrians at crosswalks with two or more lanes of traffic traveling in the same direction as illustrated on Figure 6. In this situation, vehicles stopped at the crosswalk may block oncoming vehicles from view, or oncoming vehicles may not see pedestrians in the crosswalk because other vehicles are blocking them from view.

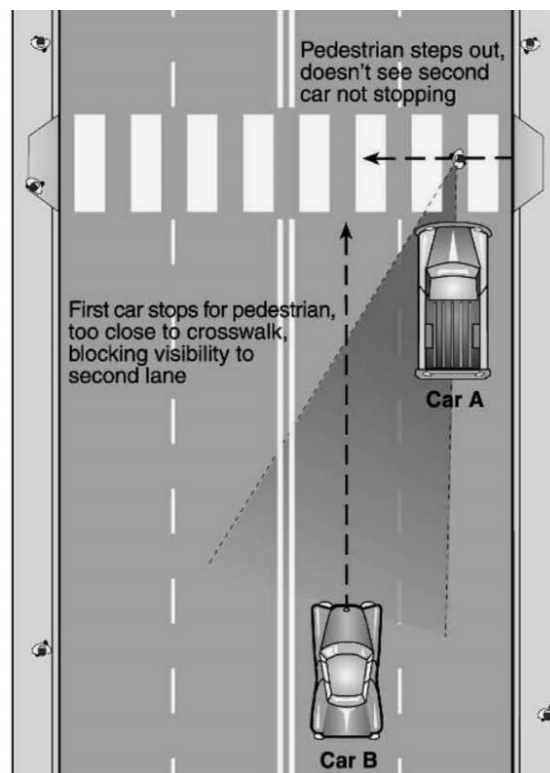


Figure 6. Illustration of a Double Threat Crash Scenario  
Source: Pedestrian and Bicycle Information Center 2018

The NPS procured the services of the Volpe Center to prepare a *George Washington Memorial Parkway – Southern Section Road Diet Traffic Operation Impact Analysis* in early 2023 to assess the traffic impacts of reducing the number of travel lanes along the Parkway South Section between Belle Haven Road and Mount Vernon (i.e., implementing a road diet). The results of the study indicated that excessive delays would occur because of current and projected traffic volumes between Belle Haven Road and Tulane Drive if the NPS implements a road diet within this section of the Parkway; however, the study indicated that certain intersection approaches could support two of the through lanes, one in each direction, serving as turn lanes. The study suggested that two travel lanes (one lane in each direction) is sufficient to accommodate traffic volumes without excessive delay from Tulane Drive to Mount Vernon, except at the intersection approaches that require additional lanes for turning movements. As such, the NPS proposes to implement a road diet where feasible between Mount Vernon and Belle View Boulevard in the southbound direction, and between Mount Vernon and Tulane Drive in the northbound direction. The *George Washington Memorial Parkway – Southern Section Road Diet Traffic Operation Impact Analysis* is available for public review at the NPS PEPC website: [Park Planning GWMP South EA \(nps.gov\)](https://www.nps.gov/pepc/park-planning-gwmp-south-ea).

The NPS would implement the proposed road diet using pavement striping and signage to reduce the number of travel lanes to one lane northbound and one lane southbound. The additional pavement area would be reallocated to establish two right-hand shoulders or dedicated right-turn lanes at southbound intersections, as well as a striped median or center turn lane. Figure 7 provides a typical section of the existing Parkway South Section. Figure 8 provides a typical section of the proposed road diet pavement striping plan between intersections. Figure 1 and Figure 2 in Appendix B provide plan views of the proposed road diet striping plan for road sections where the northbound and southbound lanes are joined and road sections where the lanes are separated by a varying width vegetated median.

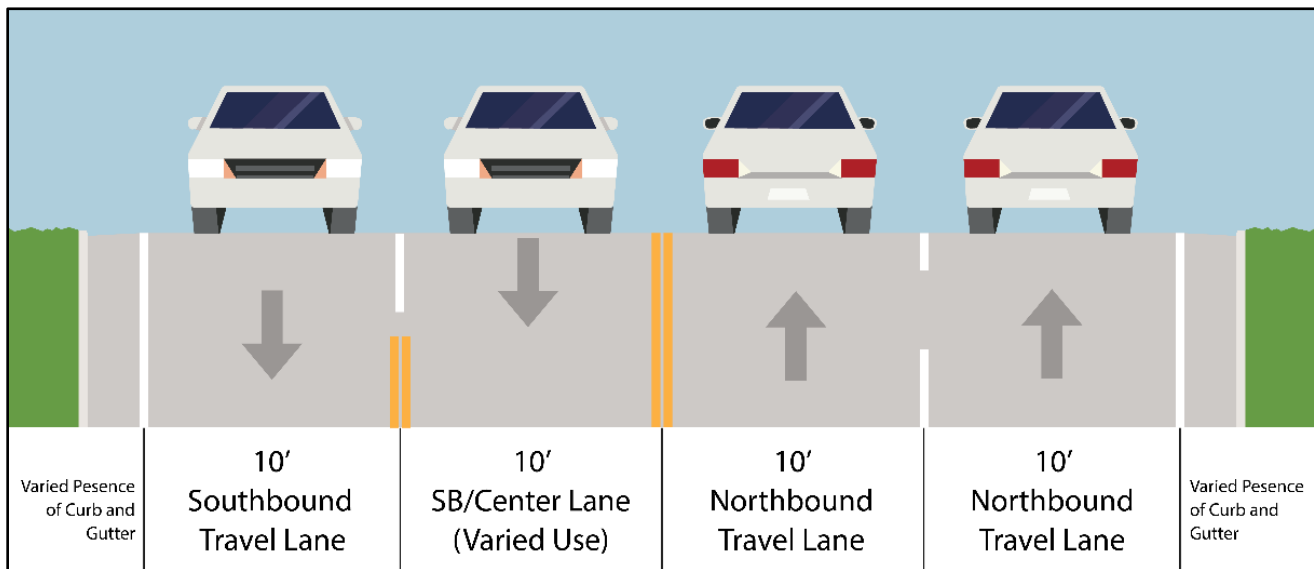


Figure 7. Existing Typical Section of the Parkway



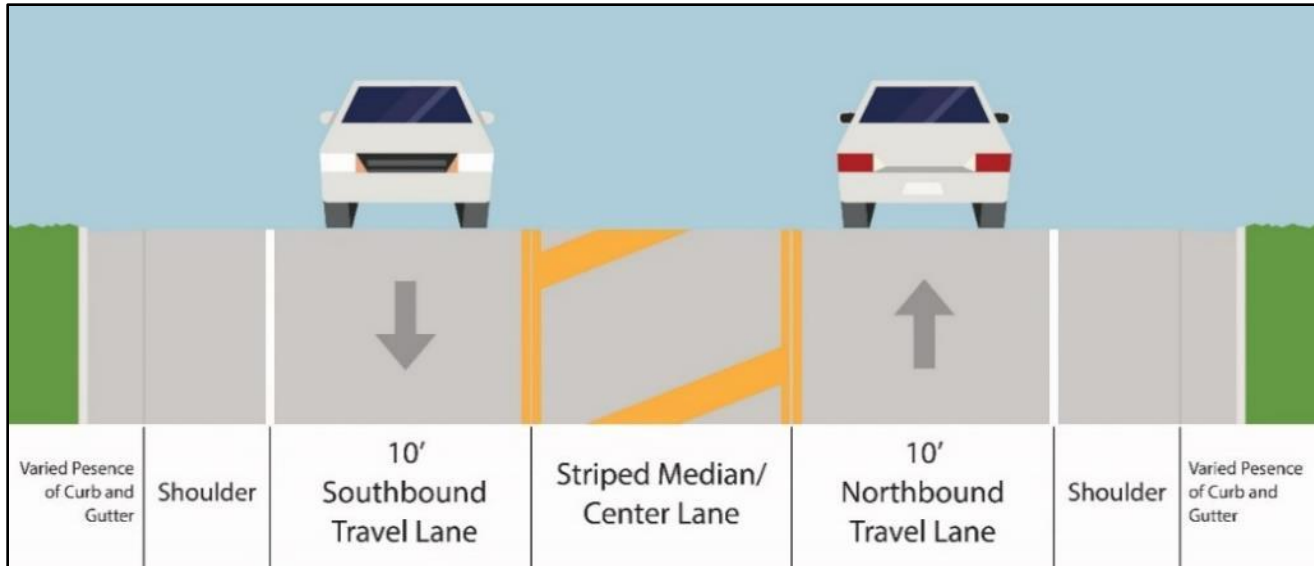


Figure 8. Typical Section of Proposed Road Diet Pavement Striping Plan

#### Parkway South Section – Roadway and Intersection Safety Improvements

In conjunction with the proposed road diet, the NPS also proposes safety improvements at the nine intersections along the Parkway South Section evaluated during the *George Washington Memorial Parkway: Traffic and Safety Context Sensitive Solutions Assessment* (FHWA 2021). The NPS also proposes safety improvements at the Belle Haven Marina Driveway, at the access road to West Boulevard Drive, and at Outlet Road / East Boulevard Drive. The NPS would establish a Continuous Green-T (CG-T) intersection configuration using striping and signage at the Morningside Lane (Appendix B, Figure 10), Tulane Drive (Appendix B, Figure 11), Belle View Boulevard (Appendix B, Figure 12), and Belle Haven Road (Appendix B, Figure 14) intersections. The CG-T intersection design allows one major street direction of travel to pass through the intersection without stopping. Left-turn vehicles from the side street use a channelized receiving lane on the major street to merge onto the major street. The channelized left-turn lane from the side street improves safety by reducing the potential for angle crashes on the major street, and the free-flow condition on the major street increases efficiency by reducing delays. The NPS would also make striping improvements to establish dedicated right-turn lanes in the southbound direction at the Stratford Lane (Appendix B, Figure 3), Vernon View Drive (Appendix B, Figure 4), Waynewood Boulevard (Appendix B, Figure 5), Collingwood Road (Appendix B, Figure 6), Wellington Road (Appendix B, Figure 7), and West Boulevard Drive (Appendix B, Figure 9) intersections in conjunction with the proposed road diet. At the Belle Haven Marina Driveway (Appendix B, Figure 13), the NPS would establish a dedicated left-turn lane onto the driveway from the Parkway southbound approach. Similarly, at the Outlet Road / East Boulevard Drive (Appendix B, Figure 8) intersection, the NPS would establish a dedicated left-turn lane from the Parkway southbound approach and a dedicated right-turn lane onto Outlet Road from the northbound approach.

The NPS would establish crosswalks designed in accordance with PROWAG to be ABAAS-compliant at the Stratford Lane, Vernon View Drive, Collingwood Road, Wellington Road, Outlet Road / East Boulevard Drive, Tulane Drive, Belle View Boulevard, the Belle View Marina Driveway, and Belle Haven Road intersections. In addition, the NPS is committed to exploring traffic calming and safety measures around the Mount Vernon traffic circle during the design phase, including but not limited to, pavement markings,

signage, configuration of the drop-off zone, and crosswalks. In conjunction with the road diet, the NPS would coordinate implementation of crosswalks with other traffic calming and safety measures, that may include pedestrian median refuge areas, intersection lighting where appropriate, rectangular rapid flashing beacons (RRFBs), and speed limit feedback signage. These are inter-related actions intended to improve pedestrian and bicyclist safety by reducing speeds of vehicular traffic and increasing visibility and predictability of nonmotorized movements. The NPS would construct sidewalks and paved trails to connect neighborhoods to the crosswalks and to existing facilities east of the Parkway, such as the Trail and bus stops. The NPS would relocate the bus stop signs at the existing dedicated bus pull-off areas to be more accessible from the proposed pedestrian crossings, where applicable.

Beginning in 1955, the concrete surface of the original roadway was expanded at select at-grade intersections to add left-turn and deceleration lanes. During the last comprehensive pavement rehabilitation completed in 1986, the NPS added left-turn and deceleration lanes at all at-grade intersections by widening the pavement surface within the median and / or along the outer curb. Under the proposed action, the NPS proposes to restore the original median and outer curb alignment of the concrete roadway surface at several intersections to reduce the number of through or turning lanes, based on traffic modeling. Removing the excess concrete would improve safety by mitigating speeding, reducing the distance required for pedestrians and bicyclists to cross the Parkway, and improving stopping sight distances for motorists turning off the Parkway across Trail crosswalks on side streets. Reducing pavement area allows this space to be repurposed for pedestrian and bicycle facilities, helps address stormwater concerns, and allows the opportunity for the NPS to reinstate original green space in the median and / or along the outer curb alignment. Table 2 provides a summary of the treatments proposed at each intersection along the Parkway South Section. Each arrow represents one lane and the driving maneuver.

The use of automated speed enforcement technology (i.e., speed cameras) would be supported through a limited number of mobile or fixed stations, not to exceed five fixed locations. The implementation and use would be based upon the NPS obtaining the legal authority to issue civil citations for traffic infractions, which is not currently the case. The creation of an automated speed enforcement program would also require the need for policies, procedures, practices, hardware, software, staffing, and funding to maintain the program and equipment throughout its life cycle.

Implementation of the proposed action for the Parkway South Section would enable NPS to maintain a park road within a unit of the NPS with significant recreational and commuter use. It restores the Parkway to its historical intentional design, provides a safer experience for commuters and visitors while maintaining the Parkway's character-defining features, addresses pedestrian safety, and ensures the continued use of the Parkway for future generations.

Appendix C includes location mapping of the various improvements that make up the proposed action for the Parkway South Section.

Table 2. Summary of Proposed Parkway South Section Intersection Treatments

Intersection	Existing Southbound Intersection Approach Configuration	Proposed Southbound Intersection Approach Configuration	Existing Northbound Intersection Approach Configuration	Proposed Northbound Intersection Approach Configuration	Restore Historic Median Alignment	Restore Historic Outer Curb Alignment	Establish Pedestrian Crosswalk	Relocate Bus Stop Signs
Belle Haven Road					Partial Restoration	Historic Alignment Appears in Place	Yes	Yes
Belle Haven Marina Driveway					Partial Restoration	Driveway Improvements Only	Yes	No Bus Stop
Belle View Boulevard					Partial Restoration	Yes	Yes	No Bus Stop
Tulane Drive					Yes	Yes	Yes	Yes
Morningside Lane					No Median	Yes	No	No Bus Stop
Access to W Boulevard Drive					No Median	Historic Alignment Appears in Place	No	No Bus Stop
Outlet Road / E Boulevard Drive					No Median	Historic Alignment Appears in Place	Yes	No Bus Stop
Wellington Road					No Median	Yes	Yes	Yes
Collingwood Road					Yes	Yes	Yes	Yes
Waynewood Boulevard					No Median	Yes	No	No Bus Stop
Vernon View Drive					No Median	Yes	Yes	Yes
Stratford Lane					Yes	Yes	Yes	Yes

Arrows adapted for use using assets from Freepik.com.

### Mount Vernon Trail – Trail Infrastructure Improvements

The NPS proposed action for the Trail involves rehabilitation, widening, and minor realignments of the asphalt pavement surface of the Trail, trail spurs, and exit/entry paths. The asphalt pavement is in poor condition along much of the Trail, exhibiting medium to high severity transverse cracking, longitudinal cracking, edge cracking, and uneven surfaces due to tree roots extending underneath the pavement. Within Trail Zone 1, trail rehabilitation would include widening from the typical 8–9-foot width to a maximum width of 10 feet depending on physical and environmental constraints. Ten feet is the minimum width recommended by AASHTO for two-directional multi-use paths / trails.

In NPS-administered portions of Zones 2 and 3, the NPS proposes widening the Trail from the typical 8-foot to 9-foot width to a maximum width of 12 feet depending on physical and environmental constraints. Establishing a 12-foot-width within this section of the Trail conforms to AASHTO guidelines for multi-use paths / trails that serve high user volumes and / or a high proportion of pedestrians. Figure 9 presents a typical section of proposed trail widening evenly distributed from the trail centerline, while Figure 10 presents an example section where widening may be distributed to one side of the Trail due to a physical or environmental constraint. In addition to the proposed trail rehabilitation and widening, the NPS would establish temporary detours during construction to maintain access along the Trail for pedestrians and bicyclists to the extent practical.

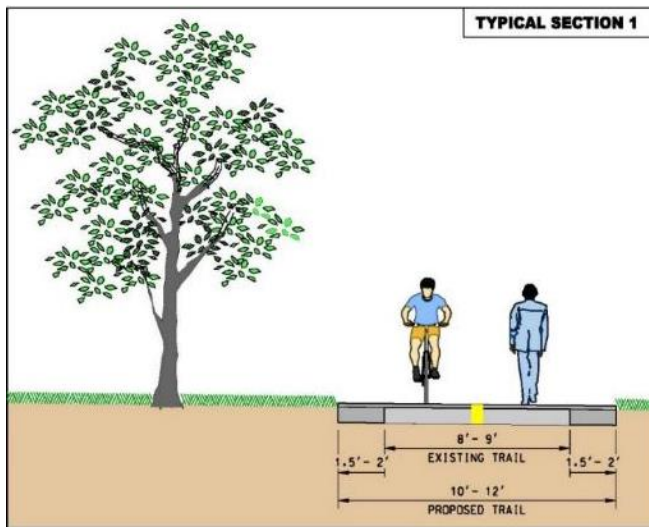


Figure 9. Typical Section of Trail Widening Distributed Evenly from the Centerline

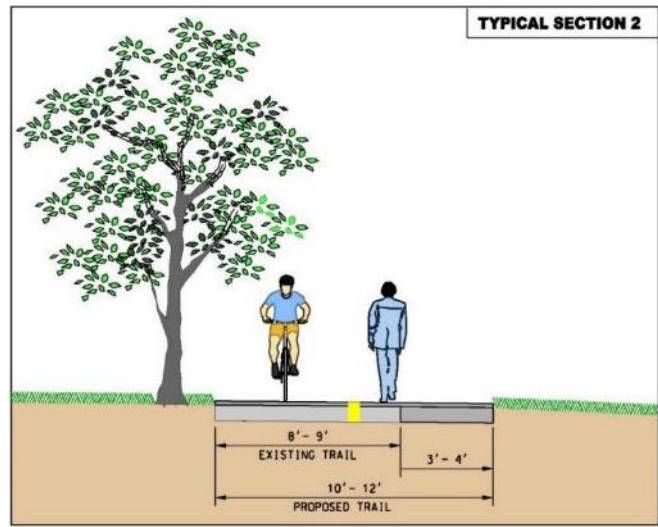


Figure 10. Typical Section of Trail Widening at Physical / Environmental Constraint

Due to trail widening, the NPS would incorporate stormwater management BMPs into the project. Establishing BMPs for stormwater management would account for a large portion of the proposed trail work and construction-related disturbance needed to implement the Trail improvements. The NPS would also evaluate existing inlets and culverts for potential replacement, construct new ditches where appropriate, clear or regrade existing ditches, and conduct other miscellaneous work to improve drainage and alleviate ponding issues along the Trail.

### Mount Vernon Trail – Trail Bridges

Under this Plan, the NPS would replace four trail bridges that are in poor condition, including Bridge 1 in Zone 1, and Bridges 25, 28, and 29 in Zone 2. The NPS would replace these bridges with new structures that are 14 feet in width from rail-to-rail to meet current AASHTO standards for multi-use trails (Figure 11). The NPS would install new bridges that are replacing bridges in wetlands using helical piles at the same locations of the existing bridge footings to avoid wetland disturbance, where feasible. It may be determined during bridge design that new or additional footings may become necessary.

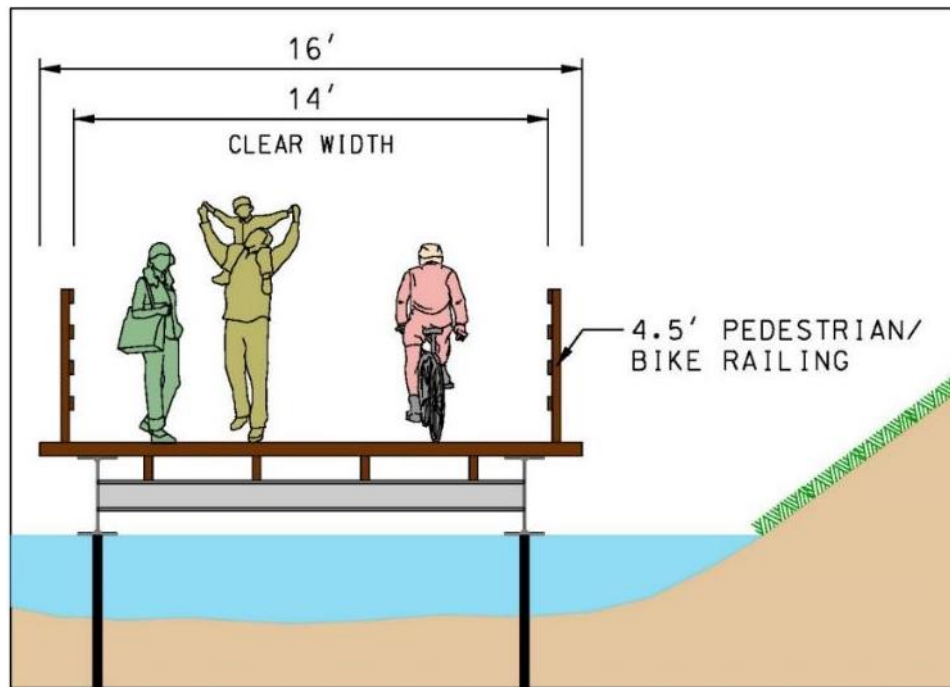


Figure 11. Typical Section of Proposed Trail Bridges

The NPS would repair / rehabilitate 29 trail bridges that do not require full replacement, including Bridges 2-11 and 13-22 in Zone 1, Bridges 26 (interim rehabilitation) and 27 in Zone 2, and Bridges 29a, 19b, 29x, 29c, and 30A in Zone 3. The NPS would also rehabilitate the trail section on the Humpback Bridge and the Rosslyn trail bridge north of the TRI parking lot.

Bridge rehabilitation activities would generally include bridge widening, replacing rotting or deteriorating structural components, installing new tread surface and railings, establishing a clear zone along the Trail by pruning and / or removing vegetation, and other necessary improvements. The NPS would seek out opportunities during design to incorporate high friction tread surfaces or treatments that are slip resistant to improve bicycle contact with the deck surface while taking trail accessibility requirements into consideration.



The NPS is also replacing several trail bridges as part of planning decisions separate from this Plan, including Bridge 12 in Zone 1 (Figure 12), which the NPS replaced in 2022; Bridges 23 and 24 in Zone 2, which are scheduled for replacement in 2023; Bridge 26 in Zone 2, which is planned for replacement (schedule to be determined) as part of the Potomac River Generating Station Power Plant Redevelopment Project; and a decision to replace and widen Bridge 31 was made as part of the TRI Cultural Landscape Report and EA completed in 2018.



Figure 12. Recently Reconstructed Bridge 12 near Fort Hunt Park  
*Source: Friends of Mount Vernon Trail 2023*

The Proposed Action Location Mapping included as Appendix C provides the locations of the bridges along the Trail proposed for replacement or rehabilitation, as well as the bridges that the NPS has, or will, replace under separate NPS planning decisions.

#### Mount Vernon Trail – Trail Safety, Accessibility, and Wayfinding Improvements

The NPS also proposes trail realignments, trail roundabouts, and measures to address pinch points at site-specific locations. Within the Trail Zone 1 area, the NPS proposes a slight adjustment at the approach to Trail Bridge 1 at approximately Mile Post (MP) 0.5. Within the Trail Zone 2 area, the NPS proposes to straighten a curve on Daingerfield Island at approximately MP 12.1 (Appendix B, Figure 15). Within Trail Zone 3, the NPS proposes to construct a roundabout where the Trail and Four Mile Run Trail merge near MP 13 (Appendix B, Figure 16), as well as where the Trail and 14<sup>th</sup> Street Bridge Trail merge at approximately MP 15.8 (Appendix B, Figure 17).

At trail-to-road intersections, the NPS would update the trail crossings to be in accordance with PROWAG to be ABAAS-compliant. In conjunction with the accessibility improvements, other traffic calming and safety measures would be installed at the trail crossings that may include pedestrian median refuge areas, lighting where appropriate, vertical traffic calming elements like speed tables / raised crosswalks, RRFBs, and speed limit feedback signage.

Furthermore, the NPS would address the pinch point under Arlington Memorial Bridge in Zone 3 at approximately MP 16.8. The roadway space along the Parkway northbound between the exit to Washington Boulevard and the entrance from South Arlington Boulevard would be rebalanced to create a safer and more consistent experience for users. The existing merge created by striping and temporary posts would be formalized with curb and extended toward the north to South Arlington Boulevard, allowing South Arlington Boulevard to merge more safely onto the Parkway as an added lane. This would also eliminate the existing Trail pinch point under Memorial Bridge and provide the opportunity to incorporate stormwater BMPs throughout this section.

The NPS would also make improvements to trail warning signage and pavement markings at pinch points under the Fort Hunt Road Overpass Bridge at approximately MP 2.7 in Zone 1 and at the Crystal City Connector in Zone 3 at approximately MP 14. The NPS also proposes safety improvements on the Northdown Road section of the Trail in Zone 1 at approximately MP 5.3. Improvements would include treatments to reduce shared-use conflicts along this section of the Trail. Subject to any land or permitting requirements, improvements could include signage and / or road markings.

The NPS would improve signing and striping along the entire trail length and implement trail-to-trail and trail-to-road intersection safety improvements. The NPS would implement a uniform sign pallet that utilizes the NPS identifier. Signage may include co-branding for Congressionally designated trails that use the same route. Signs would include directional, wayfinding, and safety. All signs would conform to Manual on Uniform Traffic Control Devices standards, NPS Uniguide standards, and park sign guidance, as appropriate. The NPS would improve signage, striping, and accessible ramps at all at-grade trail-to-road intersections.

Dense vegetation overhangs or encroaches on the Trail, reducing site distance and causing other safety concerns. The NPS would therefore conduct root and tree pruning, and vegetation clearing, along the Trail and at trail bridges to improve these conditions during construction. The NPS would continue to conduct vegetation maintenance after the project is completed by root pruning, vegetation trimming, and removal along the Trail on an as-needed basis.

### Gravelly Point Improvements

The NPS proposes to construct a permanent restroom facility at Gravelly Point near the boat ramp and install a separated pedestrian sidewalk along the east side of the parking lot connecting the restroom to the Trail (Appendix B, Figure 18). The NPS would extend sewer and water lines to the new facility and, if necessary, construct a wastewater lift station. These improvements would allow the NPS to permanently remove the temporary porta-johns at Gravelly Point. The NPS also proposes a trail realignment at Gravelly Point to create a gentler curve east of the existing porta-johns and separate pedestrians. The NPS would make intersection safety improvements where the sidewalk crosses the Trail.

### Mount Vernon Trail – Amenity Upgrades

The NPS also proposed to replace / upgrade trail amenities such as benches, bike racks, and railings; install drinking water fountains with a bottle **filling option**; and **other miscellaneous work for pedestrian “comfort stations”** along the Trail. The NPS would support new Capital Bikeshare Stations at Columbia Island Marina in Lady Bird Johnson Park, Daingerfield Island, Belle Haven Park, Fort Hunt Park, Riverside Park, and Mount Vernon, in addition to the existing stations at TRI and Gravelly Point. The NPS would also permanently remove the existing vault toilet facility at Riverside Park under this Plan. The NPS also

proposes minor curb and striping improvements in the TRI parking lot to meet ABAAS requirements and improve Trail user safety at this location.

Appendix C includes location mapping of the various improvements that make up the proposed action for the Trail.

## MITIGATION MEASURES

The NPS places a strong emphasis on avoiding, minimizing, and mitigating potential adverse impacts to resources under the jurisdiction of the NPS or because of an NPS decision. To help ensure the protection of natural and cultural resources and the quality of the visitor experience, the following mitigation measures will allow the NPS to meet its conservation mandates as required by the Organic Act (16 United States Code [USC] 1 et seq.) and as further detailed in NPS Management Policies, the National Historic Preservation Act, the Endangered Species Act (16 USC 1531 et seq.), and Executive Order 13112, as amended by Executive Order 13751 (December 8, 2016). The NPS would also implement an appropriate level of monitoring throughout the construction process to help ensure that protective measures are properly implemented and are achieving their intended results.

### Visitor Use, Experience, and Safety

- Opportunities for temporary detours on roadways outside the Parkway would be explored.
- Pedestrian and bicycle access would be maintained during construction via the use of temporary detours or alternative routes around closed trail sections. Advanced notice of closures would be provided on the park website and detours would be clearly marked.
- Maintenance of traffic plans would be coordinated with the Virginia Department of Transportation (VDOT) to minimize delays and cause the least disruption possible.

### Vegetation

- Tree surveys would be conducted during detailed design to identify opportunities to avoid or minimize tree removal. Design objectives would include avoiding impacts to legacy trees, memorial trees, and trees that have a diameter of 18 inches or more.
- Protective measures, such as fencing, would be installed around the critical root zone of trees planned for protection during construction.
- If root impacts are unavoidable, root pruning techniques along with other strategies would be used to best maintain tree health and longevity.
- Trees and shrubs impacted by construction would be replaced on a one-to-one diameter at breast height (dbh) ratio to the extent practicable. Replanting would reflect the native plant communities of the Parkway.
- Construction contractors would be required to clean vehicles and equipment offsite, and to use weed-free construction materials, to prevent the inadvertent introduction of invasive plant seeds, propagules, and other weed seeds into the Parkway.
- Disturbed soils would be stabilized using native vegetation.
- A clear zone beyond the edge of curb would be established by removing trees and other vegetation encroaching on the Parkway.

- Limited construction access in wetlands would be established via routes that avoid tree impacts. Contractors would be required to place temporary matting over herbaceous wetland vegetation.

#### Wildlife and Habitat

- The NPS intends to minimize removal of trees to the extent possible. Opportunities to avoid and minimize tree removal would be evaluated as part of detailed design.
- Trees and shrubs impacted by construction would be replaced on a one-to-one dbh ratio to the extent practicable to further minimize habitat loss.
- Tree removal and proposed bridge repairs/rehabilitation (when applicable) would be restricted from April 1 to November 14, or as determined through consultation with USFWS, to minimize potential effects to bats and / or migratory bird species.
- The NPS would conduct presence / probable absence surveys using protocols detailed in the USFWS's Range-Wide Indiana Bat and Northern Long-Eared Bat Survey Guidelines dated March 2023.
- The NPS would consult with the USFWS as needed to determine what conservation measures should be implemented to minimize potential effects.
- Construction would be restricted within the primary and / or secondary buffers of active eagle nests from December 15 to July 15, or as determined based on consultation with USFWS.

#### Historic Districts

- The proposed improvements would strictly adhere to the Secretary of the Interior's *Standards for the Treatment of Historic Properties (Secretary's Standards)* (1995b).
- New amenities and small-scale features would be sensitively designed and placed so as not to diminish the significance and integrity of historic districts, including views and vistas.
- A programmatic agreement is being developed to define the continued Section 106 consultation process and include stipulations for design review by consulting parties to ensure adherence to the Secretary's Standards and that adverse effects would not occur from those portions of the project that are subject to additional design and refinement, including bridge rehabilitation, drainage improvements, and culvert replacement or repairs. The draft programmatic agreement is included in Appendix D.

#### Archeological Resources

- Designs would be developed to avoid impacts to significant archeological sites by relocating improvements outside of archeologically sensitive areas, shifting the trail alignment away from sites, and reducing trail widening.
- If an archeological site cannot be avoided, the NPS would consult with Virginia Department of Historic Resources (VDHR) and / or the District of Columbia Historic Preservation Office (DC HPO) to develop a plan to investigate the site and delineate the site boundaries more accurately and / or to evaluate the site's potential eligibility for the National Register.
- Subsurface archeological investigations would be conducted where ground disturbance is unavoidable within areas of archeological potential that have not been previously surveyed.



- Construction may be monitored in areas of low or no archaeological potential to ensure archaeological deposits are not disturbed.
- Archaeological monitoring and discovery plans would occur in conjunction with or as an alternative to pre-construction investigations.
- A programmatic agreement is being developed to define the continued Section 106 consultation process and include strategies to avoid, minimize, and mitigate the adverse effects that may result to archeological resources after additional survey and subsurface investigations are conducted during design phase. The draft programmatic agreement is included in Appendix D.

### Cultural Landscapes

- Tree surveys would be conducted during detailed design to identify opportunities to avoid or minimize tree removal. Design objectives would include avoiding impacts to legacy trees, memorial trees, and trees that have a dbh of 18 inches or more.
- Impacted trees and shrubs would be replaced on a one-to-one dbh ratio to the extent practicable. Replanting would reflect the cultural landscape character of the Parkway and would not occur where it would obstruct significant scenic vistas.
- If an archeological site cannot be avoided, the NPS would consult with VDHR and / or DC HPO to develop a plan to investigate the site and delineate the site boundaries more accurately and / or to **evaluate the site's potential eligibility for the National Register**.
- A programmatic agreement would be developed to define the continued Section 106 consultation process and would include stipulations for design review by consulting parties and strategies to avoid, minimize, and mitigate the adverse effects that may result to archeological resources after additional survey and subsurface investigations are conducted during design phase. The draft programmatic agreement is included in Appendix D.

### ALTERNATIVES DISMISSED FROM FURTHER CONSIDERATION

The NPS considered a wide range of alternative elements and management strategies for the proposed Parkway South Section and Trail Improvements that the NPS ultimately dismissed from further consideration.

#### Parkway South Section

As detailed in the *George Washington Memorial Parkway: Traffic and Safety Context Sensitive Solutions Assessment* (FHWA 2021), the NPS investigated traffic and operational issues to develop context sensitive solutions for Parkway improvements. All potential improvements to the Parkway were evaluated within the **context of maintaining the Parkway's** scenic and nationally significant historic character. Through the assessment, the NPS identified 89 potential solutions to address traffic and safety along the Parkway that were divided into nine categories: 1) driver behavior, 2) signs and markings, 3) operational changes, 4) multimodal improvements, 5) geometric modification, 6) roadway departure countermeasures, 7) maintenance, 8) environmental solutions, and 9) improvements around Fort Belvoir. Appendix G of the assessment provides a list of all 89 concepts. Potential solutions (e.g., traffic signals) that were not consistent with the context-sensitivity considerations were dismissed in the early stages of assessment and not carried forward for detailed review. The remaining concepts were further reduced by evaluating them based on potential desired outcomes, with the benefits to traffic safety being the primary criterion. Ultimately, the

traffic and safety assessment included detailed design concepts for four potential engineering solutions: 1) access management, 2) road diets, 3) roundabouts, and 4) pedestrian / bicycle refuge islands. The NPS dismissed access management and roundabouts from further consideration as part of this Plan.

### Access Management

The NPS assessed access management strategies for the Parkway South Section. Access management countermeasures are effective and strategic applications for controlling traffic operations at the entry and exit points along a roadway. Access management techniques include numerous methods such as intersection **removal, spot widening, addition of splitter islands, channelizing right turns with “pork chop” islands,** reduced left-turn conflict intersections, right-turn lanes, two-way left-turn lane installation, driveway closure, consolidation, or relocation, limited-movement designs for side streets or driveways (such as right-in/right-out only), raised medians that preclude across-roadway movements, intersection designs such as roundabouts or those with reduced left-turn conflicts (e.g., J-turns, median U-turns), turn lanes (i.e., left only, right only, or interior two-way left), and lower speed one-way or two-way off-arterial circulation/ frontage roads (FHWA 2017).

Access management operations can control, restrict, and redirect maneuvers at intersections through geometric design and / or traffic control device assignments. Access management measures are proven in restricting high-crash maneuvers along an arterial or limited access roadway. This is especially noteworthy regarding left turns into the northbound or southbound Parkway travel way, as well as in leaving the Parkway via a left turn and crossing against oncoming, opposite flow Parkway traffic. The NPS evaluated access management countermeasures for each of the nine major intersections. The results of the evaluation determined the access management countermeasures best suited for addressing the safety concerns of the nine major intersections to be roundabouts or a road diet. All other access management strategies were dismissed from further consideration.

### Traffic Signals

The NPS investigated traffic and operational issues to develop context sensitive solutions for Parkway improvements. All potential improvements to the Parkway were evaluated within the context of maintaining the Parkway’s **scenic and nationally significant historic character**. **Potential solutions (e.g., traffic signals)** that were not consistent with the context-sensitivity considerations were dismissed in the early stages of assessment and not carried forward for detailed review.

### Roundabouts

Modern roundabouts provide many benefits over traditional intersection designs. Roundabouts have been found to be safer than other traditional, signalized, stop-controlled intersections and larger traffic circles (or rotaries), as they provide slower speeds that create more gaps for entering traffic and reduce the number of possible conflicts. They also mitigate the severity of crashes by converting the left-turn and angle crashes to sideswipe crashes. According to the FHWA Crash Modification Factors Clearinghouse, **“Conversion of Intersection into Multi-Lane Roundabout”** (FHWA 2020), while total crashes for a multi-lane roundabout increase by about 6%, severe crashes (injury and fatal crashes) decrease by about 63%. In addition to traffic safety and operational benefits, other advantages include lower maintenance costs, less environmental impact, enhanced aesthetics such as landscaping opportunities, less noise pollution, and better accommodation of pedestrians and bicyclists. A significant drawback, however, is that a typical roundabout costs between \$1.5 to \$2.5 million to install. According to the FHWA publication, *ROUNDABOUTS: An*

*Informational Guide* (FHWA 2000), intersections that are likely to benefit from roundabout control have the following characteristics: high-crash location (left turn or right-angle accidents), capacity/delay problem, intersection where signal is requested but not warranted, restricted sight distance, and equal distribution of volumes on all approach legs.

The project team conducted an examination of the nine (9) major intersections along the corridor to determine whether possible roundabout applications would exhibit reasonable level-of-service (LOS) performance. The NPS found all intersections to exhibit reasonable LOS performance, except for Belle Haven Road and Belle View Boulevard, where delays and queues would be problematic under roundabout control. The NPS further assessed the environmental and right-of-way impacts to private property or frontage roadways and determined that roundabouts would only be a viable option at three of the nine major intersections along the Parkway: Tulane Drive, Morningside Lane, and Wellington Road. While the NPS could modify these intersections into roundabouts, the NPS found other options to be more viable, appropriate, or less expensive. In an effort to reduce resource impacts, the NPS dismissed the roundabout option in favor of the permanent road diet.

#### Mount Vernon Trail

The NPS initially considered widening the Trail within NPS-administered portions of Zones 2 and 3 to a standard width of 14 feet. AASHTO guidelines recommend that multi-use paths / trails that serve a high percentage of pedestrians and high user volumes should be 11 to 14 feet in width. However, NPS dismissed this option from further study because widening the Trail to as much as 14 feet would result in unacceptable impacts to sensitive natural resources, including trees and wetlands; require more extensive BMPs to comply with Virginia and District stormwater requirements; increase the likelihood of archeological resource impacts; and result in unnecessary alterations to the cultural landscape of the Parkway.

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## AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This chapter describes current environmental conditions in and around the Parkway South Section and Trail. The discussion serves as a baseline for understanding the condition of the resources that could be impacted. This chapter also describes the environmental consequences of the no action alternative and the proposed Parkway South Section and Trail Improvements.

The Affected Environment description is followed by the environmental consequences analysis for each resource topic. The resource topics presented in this chapter correspond to the planning issues and concerns described in the Purpose and Need chapter of this EA.

In accordance with CEQ regulations, the environmental consequences analysis includes direct, indirect, and cumulative impacts (40 CFR 1502.16). The intensity of impacts is assessed in the context of the Parkway's purpose and significance, and any resource-specific context that may be applicable (40 CFR 1508.27). Where appropriate, mitigating measures for adverse impacts are described and their effect on the severity of the impact is noted. The methods used to assess impacts vary depending on the resource being considered but are generally based on a review of pertinent literature and park studies, information provided by on-site experts and other agencies, professional judgment, and park staff knowledge and insight.

### VISITOR USE, EXPERIENCE, AND SAFETY

#### Affected Environment

The Parkway experienced approximately 7,397,120 recreation visitors in 2022. The Parkway serves as a gateway to the numerous natural and cultural resources within the National Capital Region and along the Potomac River. Visitors come to the Parkway to both connect to these resources or to experience the scenic views along the highway and trails. The Parkway offers numerous outdoor activities, including bicycling, running, hiking, canoeing, kayaking, picnicking, and nature viewing. The Parkway also offers concerts and ranger-led programs (NPS 2022a; NPS 2023a). Along its route, the Parkway South Section provides direct access to several NPS-administered parks, recreational and natural areas, and significant cultural and memorial sites, such as Belle Haven Park and Marina, Dyke Marsh Wildlife Preserve, the Collingwood Picnic Area, Fort Hunt Park, Riverside Park, and George Washington's Mount Vernon (NPS 2023a). Additionally, the Parkway serves as an important commuter route within the Washington, DC metropolitan area.

The Trail is located within the Parkway and provides visitors with 18 miles of walking, jogging, biking, and sightseeing experiences from TRI to Mount Vernon. The Trail connects with other trails in the region, including the Potomac Heritage Trail, Four Mile Run Trail, 14th Street Bridge Trail, and the Crystal City Connector, and provides pedestrian and bicycle access to numerous neighborhoods and business centers in proximity of the Parkway. The Trail also provides access to TRI, Lady Bird Johnson Park, Memorial Avenue/Arlington Memorial Bridge, Lyndon Baines Johnson Memorial Grove on the Potomac, Columbia Island Marina, the Navy – Merchant Marine Memorial, Gravelly Point, Roaches Run Waterfowl Sanctuary, Daingerfield Island, and Jones Point Park and Lighthouse, as well as the parks, areas, and sites along the Parkway South Section listed above (NPS 2023b).

According to the *Mount Vernon Trail Corridor Study* (Volpe Center 2020), bicycle usage is highest on the trail section north of Alexandria during the weekdays; on weekends, bicycle usage is more consistent throughout the Trail, although counts are lower than during weekdays. Pedestrians make up a higher proportion of trail users during the weekends when compared to weekdays. Overall, the northern portion of the Trail is more heavily used than the southern section. However, weekend usage is highest on the southern section of the Trail (Volpe Center 2020).

### Views and Vistas

Many of the views along the Parkway contribute to its role as a gateway to the nation's capital. Both the Parkway's *Long Range Interpretive Plan* (NPS 2005) and *Foundation Document* (NPS 2014) detail the importance of these viewsheds. Along the Parkway South Section, visitors can explore scenic views of the Potomac River and other cultural or natural resources, particularly from viewpoints near Memorial Avenue / Arlington Memorial Bridge, Lyndon Baines Johnson Memorial Grove on the Potomac, the Navy - Merchant Marine Memorial, Gravelly Point, Daingerfield Island, Jones Point Park and Lighthouse, Dyke Marsh Wildlife Preserve, and Fort Hunt Park. Several parking areas and pull-offs along the roadway afford visitors the opportunity to exit their vehicle to enjoy the views, including Roaches Run, Dyke Marsh, Riverside Park, and the Potomac Overlook east of Vernon View Drive (NPS 2005; NPS 2014). Vegetation encroachment has begun to limit the ability to enjoy scenic views at certain locations along the Parkway and Trail. However, these views could be reclaimed through vegetation management.

### Traffic

In addition to providing access to numerous recreational and educational opportunities, the Parkway is also an important route for many local and regional commuters. In 2022, the Parkway received approximately 33,282,505 non-recreation visitors (NPS 2022a). The Average Daily Traffic (ADT) was analyzed at three locations along the Parkway South Section as part of the *George Washington Memorial Parkway: Traffic and Safety Context Sensitive Solutions Assessment* (FHWA 2021). The study determined that the ADT for the Parkway south of Belle View Boulevard is 23,546 vehicles per day. South of Morningside Lane, the ADT is 16,775 vehicles per day. South of Collingwood Road, the Parkway experiences an ADT of 11,042 vehicles per day (FHWA 2021).

In March 2023, the Volpe Center completed the *George Washington Memorial Parkway – Southern Section Road Diet Traffic Operation Impact Analysis* that studied the operational conditions at six intersections along the Parkway South Section. To measure the quality of operations, each intersection was assigned a functional classification, or LOS, from LOS A to LOS F. A classification of LOS D or higher is considered acceptable, while LOS F is used to designate a failing operational condition. Table 3 provides the overall intersection LOS and existing delay for each of the studied intersections. The Parkway intersections at Belle Haven Road and Tulane Drive have failing LOS in both the morning and evening. The intersection at Belle View Boulevard is currently assigned an overall failing LOS during the evening (Volpe Center 2023). The locations of these intersections are depicted on Figure 2.

The *George Washington Memorial Parkway: Traffic and Safety Context Sensitive Solutions Assessment* (FHWA 2021) also analyzed speeds along the Parkway South Section. Speed data was collected for both the northbound and southbound directions south of Belle View Boulevard, Morningside Lane, and Collingwood Road. Table 4 provides speed data collected at these locations and includes the 85<sup>th</sup>-percentile speed, or the speed at which most vehicles will travel at or below. The 85<sup>th</sup>-percentile speed was recorded as being at least seven miles per hour above the posted speed limit at all three locations, which indicates that

most travelers are consistently speeding. A map depicting the posted speed limits along the Parkway South Section is provided on page 8 of the *George Washington Memorial Parkway: Traffic and Safety Context Sensitive Solutions Assessment*, which can be found on the NPS PEPC website: [Park Planning GWMP South \(nps.gov\)](https://www.nps.gov/planning/gwmp-south).

Table 3. Existing Delay and LOS at Parkway Intersections

Intersection	Existing Delay (Seconds per Vehicle) a.m. (p.m.)	Overall Level-of-Service a.m. (p.m.)
Belle Haven Road	>300 (>300)	F (F)
Belle View Boulevard	30 (>300)	D (F)
Tulane Drive	142 (>300)	F (F)
Morningside Lane	15 (17)	B (C)
Wellington Road	15 (10)	B (A)
Collingwood Road	2 (1)	A (A)

Source: Volpe Center 2023

Table 4. Speed Data for the Parkway South Section

Location	Roadway Direction	Posted Speed Limit (miles per hour)	Median Speed Limit (miles per hour)	85 <sup>th</sup> Percentile Speed (miles per hour)	% Vehicles Traveling Over Speed Limit
Parkway south of Belle View Boulevard	Northbound	35	47	53	99
	Southbound	45	47	52	47
Parkway south of Morningside Lane	Northbound	45	48	54	77
	Southbound	45	49	55	84
Parkway south of Collingwood Road	Northbound	45	47	53	69
	Southbound	45	50	57	85

Source: FHWA 2021

### Safety

The *George Washington Memorial Parkway: Traffic and Safety Context Sensitive Solutions Assessment* evaluated nine intersections along the Parkway South Section for potential safety issues. Crash data was analyzed for the intersections at Belle Haven Road, Belle View Boulevard, Tulane Drive, Morningside Lane, Wellington Road, Collingwood Road, Waynewood Boulevard, Vernon View Drive, and Stratford Lane. Crash data for these intersections was available from 2005 to 2015 and from 2018 to 2019; the databases changed sometime between 2015 and 2018, so crash data from this period is not available (FHWA 2021). Table 5 provides the total number of crashes at the studied intersections during these timeframes. The studied intersections are shown on Figure 2.

The assessment reviewed the available crash data at these intersections to determine the potential factors leading to the crashes. The factors influencing crashes vary at the intersections. The severity of crashes was most concerning at the Belle View Boulevard, Tulane Drive, Morningside Lane, Waynewood Boulevard, and

Vernon View Drive intersections primarily because of vehicle speed. Visibility issues caused by poor lighting was a prominent concern at Belle Haven Road, Belle View Boulevard, Morningside Lane, Collingwood Road, Waynewood Boulevard, and Stratford Lane. The surface condition of the Parkway was identified as a concern at Waynewood Boulevard, while obscured sight lines caused by vegetation encroachment was a significant concern at Tulane Drive, Wellington Road, Collingswood Road, Waynewood Boulevard, and Stratford Lane. Animal-related crashes are a significant concern at the intersections with Belle Haven Road, Tulane Drive, Wellington Road, and Waynewood Boulevard. Crashes that involve pedestrians or bicyclists are a severe concern at the intersections with Belle Haven Road, Belle View Boulevard, Wellington Road, and Waynewood Boulevard (FHWA 2021).

Table 5. Crash Data for Parkway South Section Intersections

Parkway Intersection	Crashes (2005 to 2015)	Crashes (2018 to 2019)	Total Crashes
Belle Haven Road	68	4	72
Belle View Boulevard	81	9	90
Tulane Drive	29	3	32
Morningside Lane	64	9	73
Wellington Road	21	2	23
Collingwood Road	41	5	46
Waynewood Boulevard	16	1	17
Vernon View Drive	22	2	24
Stratford Lane	10	2	12
Total	352	37	389

Source: FHWA 2021

The *Mount Vernon Trail Corridor Study* (Volpe Center 2020) also analyzed crash data to identify safety problems along the Trail. Between 2006 and 2010, there were 225 reported pedestrian and bicycle crashes recorded along the Trail. After removing accidents caused by health events, the study reviewed 167 incidents to identify the most frequent locations for crashes. Zone 3 of the Trail saw most crashes occurred in high-use areas, crossings, and intersections, most notably near Washington National Airport and Mile Marker 13.5. In Zone 2, most crashes were concentrated near Daingerfield Island, particularly near its “S” curve, and near the Four Mile Run Trail intersection. Crashes in Zone 2 were primarily the result of trail conditions or collisions between users. Crashes within Zone 1 are largely associated with steep slopes, as well as bridge transitions and at-grade crossings. Within Zone 1, crashes near bridges are particularly severe and are associated with wet trail conditions. Collisions between user types were also frequent in this zone. A map of the most frequent crash locations along the Trail is provided on page 33 of the *Mount Vernon Trail Corridor Study*, which can be found on the NPS PEPC website: [Park Planning GWMP South \(nps.gov\)](https://www.nps.gov/pepc/park-planning-gwmp-south).

The study identified narrow trail widths, intersections, surface/topography transitions, and roadway crossings as the primary safety concerns along the Trail. The narrow trail width, coupled with high traffic volumes, poor sightlines, and high speeds, lead to several safety incidents along the Trail (Volpe Center 2020). Additionally, comments received during public scoping identified deteriorating pavement conditions, overgrown vegetation, and poor drainage conditions as safety hazards.

Continuous development and future local and regional population increases are anticipated to result in an associated increase in demand to use the Parkway, Trail, and other amenities by visitors and commuters. Traffic will remain an issue as more and more people use the Parkway along their commute, for recreation, or to reach other destinations. Additionally, as the region is constantly changing and developing, views and vistas from the Parkway will continue to be altered. Although many viewsheds are protected, outside development could impair these views by adding or removing structures and / or landscaping that were not intended during the initial design of the Parkway.

### Impact Assessment Methodology

To analyze the impacts of each alternative on park visitors and other users, the NPS considered construction-related disruptions that are likely to occur, and evaluated traffic, speed, and crash data collected to support project planning efforts. The analysis of potential impacts was performed using data provided by technical experts, professional judgment, information provided by park staff, public comments, and experience with similar past projects.

### Impacts of the No Action Alternative

Under the no action alternative, the NPS would continue to maintain the Parkway South Section and Trail to ensure the operation of the roadway, trail, and associated facilities. Visitors to the Parkway South Section would continue to use the roadway to access the numerous recreational, natural, and cultural areas within the Parkway, and as a critical component of the regional commuter network. Additionally, the Trail would continue to be used for recreational and commuting purposes.

Traffic along the Parkway would be similar to the existing conditions although continued development and regional population increases are likely to bring more visitors and place more demand on the roadway and park facilities. The LOS at the intersections along the Parkway South Section would remain at current levels in the short-term, but population increases may cause intersection LOS to worsen over the long-term. The increased speeds seen on the South Section would not decrease under the no action alternative.

The no action alternative would not directly address safety issues along the Parkway or the Trail aside from continued operational maintenance. The NPS would continue to maintain vegetation encroachment that may be causing safety concerns, such as limited site lines. However, vegetation encroachment would continue to obstruct some of the significant scenic views and vistas along the Parkway and Trail. Crashes would likely continue to occur as frequently as they do under current conditions; however, increased traffic caused by regional population increases may exacerbate the safety issues at the intersections analyzed in the *George Washington Memorial Parkway: Traffic and Safety Context Sensitive Solutions Assessment* (FHWA 2021). Unsafe conditions along the Trail would persist under the no action alternative from narrow trail widths, road-to-trail, and trail-to-trail intersection conflicts, deteriorating trail surfaces, transitions between trail surfaces, sharp curves on the Trail, and lack of formal pedestrian roadway crossings that would continue to contribute to accidents and other user conflicts. Spot repairs to maintain operation of the Parkway and Trail would require temporary closures and the need for NPS to implement maintenance of traffic to minimize delays and to address potential safety concerns.

The no action alternative would not result in adverse impacts to visitor use, experience, and safety above what is already occurring; however, should traffic and visitation increase due to development in the region, and safety issues are not addressed, visitor use, experience, and safety is likely to become more disruptive.



## Impacts of the Parkway South Section and Trail Improvements

Construction of the Parkway South Section improvements would largely be confined to the roadway and its immediate vicinity to minimize resource impacts. As such, temporary lane closures may be required that would potentially disrupt traffic and the visitor experience along the scenic roadway. The NPS would also explore opportunities to establish temporary detours on roadways outside the Parkway if such detours would reduce the construction duration and / or reduce resource impacts. Construction activities may also result in temporary access restrictions to recreational, natural, and cultural areas along the Parkway, and cause temporary disruption of the visitors' enjoyment of these areas, resulting in noticeable short-term adverse impacts to visitor use and experience. However, these disruptions would only occur during construction and would not be permanent.

Similarly, improvements to the Trail would require temporary closures during construction. The NPS would maintain pedestrian and bicycle access for the duration of construction by providing temporary detours or alternative routes around closed trail sections. The NPS would ensure that trail detours are clearly marked and would provide advance notice of trail closures on the Parkway website. Trail traffic would be routed through Arlington and the City of Alexandria using the existing trail network to maintain connectivity. At select locations, single lane closures on the Parkway would be used to detour pedestrians and bicyclists around closed trail sections. Access points to the regional trail network would remain available from Key Bridge, north of TRI, Memorial Circle, 14<sup>th</sup> Street Bridge, the Crystal City Connector, Four Mile Run Trail, and the City of Alexandria. Detour routes would be determined during final design of the Trail. The NPS would ensure that access to the numerous recreational, natural, and cultural areas along the Trail are maintained during construction. Once construction is complete, the Trail would be open to visitors in its entirety, eliminating any disruptions to visitors caused by trail closures.

Improvements to the Trail would include several amenities to enhance the visitor experience along the Trail. Existing benches, bike racks, and railings would be replaced or upgraded as needed. The NPS would replace drinking fountains with new fountains that provide bottle-filling capabilities. For the benefit of visitors, the NPS would replace the porta-john facility at Gravelly Point with a new, permanent restroom facility. However, the NPS would remove the vault toilets at Riverside Park. Furthermore, Capital Bikeshare Stations would be provided at several additional locations along the Trail, including Columbia Island Marina, Daingerfield Island, Belle Haven Park, Fort Hunt Park, Riverside Park, and Mount Vernon. These enhanced amenities would better accommodate the growing usage of the Trail and improve the overall experience for visitors.

Viewsheds and vistas would be temporarily impacted by the presence of construction activities and equipment, and temporary closures and / or detours would limit access to overlooks and other viewpoints along the Parkway and Trail, resulting in short-term adverse impacts to visitor use and experience. Noise and emissions from construction equipment may also cause temporary disruptions to visitors at scenic viewpoints or at other recreational, natural, and cultural areas. These temporary disruptions would not be permanent. Following construction, significant views and vistas along the Parkway and Trail would be restored through removal of vegetation encroachment and overhangs, and safety would be improved with the reestablishment of clear zones. The installation of steel-back timber guardrails at spot locations recommended by FHWA would not be expected to affect scenic views and vistas and is consistent with the character of the cultural landscape.

Temporary impacts to traffic are anticipated during construction of the Parkway South Section improvements because of lane closures and potential detours. Since the Parkway is a significant commuter route, construction activities would both increase delays on the roadway itself, and temporary congestion could occur on detour routes on the roadways in the immediate vicinity. The NPS would coordinate with the VDOT to develop maintenance of traffic plans that minimize delays to cause the least disruption possible.

The Parkway South Section improvements would include the implementation of a roadway diet between Belle View Boulevard and Mount Vernon in the southbound direction, and between Mount Vernon and Tulane Drive heading northbound. The road diet would be limited to these areas since excessive delays would not be anticipated. As previously stated, the speed data provided in the *George Washington Memorial Parkway: Traffic and Safety Context Sensitive Solutions Assessment* (FHWA 2021) indicated that most drivers are consistently speeding. The proposed road diet would improve safety by reducing the speed differential between travel lanes caused by drivers speeding to weave around slower or turning vehicles; the road diet would result in vehicle speeds limited by the lead vehicle in the through lane. Speed limits are within the design speed of the Parkway; therefore, the Plan does not change the posted limits. Additionally, the road diet would reduce vehicle conflicts by separating turning movements and side street traffic from the through lane (FHWA 2014). The NPS would also implement traffic calming measures as part of the road diet to reduce vehicle speeds, such as RRFBs and speed limit feedback signage. Additionally, excess concrete would be removed from the roadway to restore the original median and outer curb alignment to mitigate speeding. Should NPS obtain the necessary legal authority to issue civil citations for traffic infractions, a limited number of automated speed enforcement technology stations would be implemented. As such, implementation of the road diet and other traffic calming measures would result in long-term beneficial impacts to visitor safety.

Intersection safety improvements would result in changes to the existing LOS at several intersections on the Parkway South Section. The *George Washington Memorial Parkway – Southern Section Road Diet Traffic Operation Impact Analysis* (Volpe Center 2023) included a detailed traffic analysis of existing and projected delays and LOS at the Belle Haven Road, Belle View Boulevard, Tulane Drive, and Morningside Lane intersections. The proposed measures would improve the safety at these intersections but may result in additional delays or a decrease in the LOS in specific road movements. However, the proposed improvements' effect on the overall intersection LOS would be minimal, and in some cases would be improved. There would be no changes to delays and the overall intersection LOS at Belle View Boulevard and Tulane Road during the evening, but traffic conditions would be improved for the morning. There would be no change to delays and the overall intersection LOS at Belle Haven Road; however, the morning delay would be decreased. The delay and overall intersection LOS at Morningside Lane would decrease during the morning but increase in the evening (Volpe Center 2023). Table 6 provides a comparison of the existing and projected delays (measured in seconds per vehicle) and LOS at each of the four analyzed intersections.

Intersection improvements at Stratford Lane, Vernon View Drive, Waynewood Boulevard, Collingwood Road, Wellington Road, and the access to West Boulevard Drive would include the establishment of dedicated turn lanes. The *George Washington Memorial Parkway – Southern Section Road Diet Traffic Operation Impact Analysis* (Volpe Center 2023) did not analyze all these intersections but did provide comparative data for the southbound right-turn lane improvements at the Wellington Road and Collingwood Road intersections with the Parkway. The proposed improvements at these intersections would not result in significant increases to the delay or effect the overall intersection LOS (Volpe Center 2023). The projected overall intersection LOS would remain LOS A at both intersections in both the morning and evening operational condition. Similarly, Stratford Lane, Vernon View Drive, Waynewood Boulevard, and West

Boulevard Drive would not experience noticeable changes to the overall intersection LOS or delay times after the proposed intersection improvements are implemented. In addition, a southbound left-turn lane would be implemented at the Belle Haven Marina Driveway, while the Outlet Road / East Boulevard Drive intersection would be improved with both southbound left-turn and northbound right-turn lanes. While these improvements were not included in the *George Washington Memorial Parkway – Southern Section Road Diet Traffic Operation Impact Analysis* (Volpe Center 2023), it is likely that they would not experience a decrease in the LOS or increase in delay times.

Table 6. Existing and Projected Delays and LOS at Four Parkway Intersections

Intersection	Roadway Movement	Existing Delay <sup>[a]</sup> a.m. (p.m.)	Road Diet Delay <sup>[a]</sup> a.m. (p.m.)	Existing LOS a.m. (p.m.)	Road Diet LOS a.m. (p.m.)
Belle Haven Road	Eastbound - Left	>300 (>300)	84 (>300)	F (F)	F (F)
	Eastbound - Right	>300 (>300)	17 (>300)	F (F)	C (F)
	Northbound - Turn	4 (6)	7 (148)	A (A)	A (F)
	Northbound - Left	9 (>300)	11 (>300)	A (F)	B (F)
	Southbound - Turn	2 (9)	2 (11)	A (A)	A (B)
	Southbound - Right	4 (13)	4 (13)	A (B)	A (B)
	Overall	>300 (>300)	58 (>300)	F (F)	F (F)
Belle View Boulevard	Eastbound - Left	35 (>300)	12 (>300)	D (F)	B (F)
	Eastbound - Right	17 (>300)	3 (>300)	C (F)	A (F)
	Northbound - Turn	6 (5)	63 (>300)	A (A)	F (F)
	Northbound - Left	8 (17)	52 (>300)	A (C)	F (F)
	Southbound - Turn	3 (5)	1 (8)	A (A)	A (A)
	Southbound - Right	4 (9)	2 (4)	A (A)	A (A)
	Overall	30 (>300)	9 (>300)	D (F)	A (F)
Tulane Drive	Eastbound - Left	142 (>300)	13 (>300)	F (F)	B (F)
	Eastbound - Right	122 (>300)	11 (>300)	F (F)	B (F)
	Northbound - Turn	2 (1)	38 (87)	A (A)	E (F)
	Northbound - Left	3 (8)	14 (28)	A (A)	B (D)
	Southbound - Turn	4 (206)	1 (2)	A (F)	A (A)
	Southbound - Right	3 (165)	1 (1)	A (F)	A (A)
	Overall	142 (>300)	13 (>300)	F (F)	B (F)
Morningside Lane	Eastbound - Left	15 (17)	7 (101)	B (C)	A (F)
	Eastbound - Right	7 (11)	5 (88)	A (B)	A (F)
	Northbound - Turn	6 (4)	185 (148)	A (A)	F (F)
	Northbound - Left	5 (9)	167 (33)	A (A)	F (D)
	Southbound - Turn	6 (8)	1 (2)	A (A)	A (A)
	Southbound - Right	6 (8)	1 (1)	A (A)	A (A)
	Overall	15 (17)	7 (101)	B (C)	A (F)

The *George Washington Memorial Parkway: Traffic and Safety Context Sensitive Solutions Assessment* (FHWA 2021), as well as comments received during public scoping, highlighted the need for additional intersection safety improvements. In general, the proposed intersection redesigns would establish separate turning and through movements to reduce vehicle conflicts and provide a free-flow condition for vehicles traveling through the intersection. The redesign would also reduce the potential of angle crashes by channelizing the left-turn lane from the intersection's side street.

Formal crosswalks would be established at the Stratford Lane, Vernon View Drive, Collingwood Road, Wellington Road, Outlet Road / East Boulevard Drive, Tulane Drive, Belle View Boulevard, the Belle View Marina Driveway, and Belle Haven Road intersections. The crosswalks would provide safe, accessible crossings for pedestrians from adjacent neighborhoods that would connect to the Trail and / or other amenities on the east side of the Parkway. These formal crossings would be designed to be highly visible to vehicle traffic and would include the required signage, lighting, striping, RRFBs, and pedestrian refuges to improve safety by addressing potential conflicts between pedestrians, bicyclists, and vehicle traffic.

The proposed Trail improvements would also address safety concerns identified in the *Mount Vernon Trail Corridor Study* (Volpe Center 2020), which identified that the existing narrow trail width coupled with high traffic volumes of multiple user types leads to conflicts and potential safety hazards. The proposed improvements would widen the Trail to a maximum of 10 feet in Zone 1, and up to 12 feet in the NPS-administered portions of Zones 2 and 3. As mentioned previously, the extent of trail widening would be dependent on physical and environmental constraints. The NPS anticipates the proposed trail widening would allow for a greater volume of users to travel along the Trail while avoiding conflicts with other users because of the additional space provided. Trails with multiple users require additional space to accommodate the higher traffic volumes and the varying movement patterns and speeds of different user types. Additional width allows for more passing space for users going at differing speeds; a greater width also allows additional space for users to avoid potential obstacles along the Trail, including vegetation encroachment or hazardous trail conditions. AASHTO recommends a minimum width of 10 feet for a shared-use path and minimum of 12 feet on trails with heavy visitor usage (FHWA 2001).

In addition to widening, the proposed Trail improvements would rehabilitate the asphalt pavement surface, which has deteriorated into a poor condition along much of the Trail. The asphalt rehabilitation would address trail conditions such as root heaves, pavement cracking, and potholes to improve safety for trail users. The NPS would also remove vegetation encroachment from the Trail and trim tree overhangs to improve sight lines along the Trail, and conduct drainage improvements and implement stormwater management BMPs to reduce ponding for added safety.

The proposed Trail improvements would also address safety issues on the various trail bridges through either rehabilitation or complete replacement. The bridges would be widened, when feasible, to reduce the potential for user conflicts, and the tread surface of the bridges would be replaced to improve traction, especially under wet conditions. The NPS would also improve the transitions between the Trail and bridges to prevent loss of traction for bicyclists during inclement weather.

The proposed Trail Improvements would also address pinch points, dangerous curves, and sight lines that create safety hazards at Gravelly Point, at MP 12.1 near Daingerfield Island, and under the Arlington Memorial Bridge. Roundabouts would be constructed at the Four Mile Run Trail and 14<sup>th</sup> Street Bridge Trail to improve safety by eliminating dangerous trail-to-trail intersections. Improvements to trail warning signage and pavement markings would be implemented to alert trail users to the additional pinch points identified

under the Fort Hunt Road Overpass Bridge, at MP 2.7 in Zone 1, and at the Crystal City Connector. Road-to-trail intersections would also be improved in support of pedestrian safety, improved signage would be installed for wayfinding and warnings, and striping would be included along the Trail to provide a visible separation to minimize potential conflicts for trail users traveling in opposite directions.

The NPS anticipates noticeable adverse impacts to visitor use, experience, and safety during the construction of the Parkway South Section and Trail Improvements. Construction activities would disrupt the visitor experience of the scenic roadway and its views as well as temporarily restrict access to recreational, natural, and cultural areas. Detours and closures on both the Parkway and Trail would result in noticeable disruptions to traffic; however, these adverse impacts would be limited to the duration of construction. Once completed, the proposed improvements would enhance operation of the Parkway South Section and Trail and result in long-term benefits to visitor use, experience, and safety from the implementation of safety measures, including the road diet, intersection improvements, bridge replacement / rehabilitation, increased trail width, and improved trail conditions. Furthermore, the wider Trail would be able to safely accommodate more users and user types, while the addition of amenities along the Trail would improve the experience of trail users. The Parkway South Section and Trail Improvements would there be expected to have long-term beneficial impacts to visitor use, experience, and safety.

#### Cumulative Impacts

Current and future projects and actions identified for the cumulative impacts analysis, including the Parkway North Section Rehabilitation, recommended improvements described in the TRI Cultural Landscape Inventory (CLI) / EA, the Long Bridge project, the Memorial Circle Safety Improvements, CC2DCA Intermodal Connector, the DCA Roadway Network Improvements and Associated Development, and Potomac River Generating Station Power Plant Redevelopment would all result in temporary disruptions to visitors to the Parkway during construction and / or implementation of the proposed improvements. Construction activities, vehicles, and equipment could disrupt traffic, disturb recreational activities, access to park sites, and cause temporary obstructions to viewsheds and vistas. However, it is not expected that all these projects would be implemented concurrently, and as each project is completed, the NPS anticipates that visitor use, experience, and safety would be improved. The proposed Parkway South Section and Trail Improvements would also result in temporary disruptions to visitors during construction but would have long-term benefits from roadway and trail safety improvements. As such, the proposed improvements would add a noticeable adverse incremental impact to the temporary cumulative adverse impacts to visitor use, experience, and safety. But the proposed action would add a beneficial incremental impact to the long-term benefits that would be expected after the projects in the cumulative impacts scenario are implemented.

## VEGETATION

### Affected Environment

#### Natural Plant Communities

The vascular flora record of the Parkway contains at least 1,314 taxa (Steury, B.W. 2011). Vegetation monitoring conducted as part of the NPS Inventory and Monitoring Program identified 138 species of trees, 148 shrubs, 959 herbs, and 25 woody vines within the Parkway. Of these, 375 are non-native. Of the non-native species, 46 are common enough in some areas to be considered invasive (Walsh et al. 2016). Included



in the 1,314 taxa found within the Parkway are 62 woody species that have been planted in landscapes along the roadway that were not found naturally occurring elsewhere within the Parkway. Of these, 14 are native to the Washington-Baltimore metro area, but not native to the Parkway, and 48 are non-native species (Walsh et al. 2016).

The vegetation of the Parkway includes a complex of upland and floodplain forest and tidal marsh communities, as well as several rare vegetation types that occupy the bedrock terraces, exposed rocks, and frequently flooded river shores. Successional forests are common in formerly cleared areas of the Parkway. Much of the contemporary forest consists of maturing second growth forest stands.

The *Geospatial Data for the Vegetation Mapping Inventory Project of George Washington Memorial Parkway* (National Capital Region 2018) documents the plant communities identified within the Parkway from four major classes of vegetation, including Forest and Woodland Vegetation, Shrub and Herb Vegetation, Aquatic Vegetation, and Agricultural and Developed Vegetation. Vegetation within the first three classes include plant communities from 34 natural vegetation associations, which reflects the biodiversity of the Parkway. Furthermore, there are 16 vegetation associations that fall within the conceptual-level limits of disturbance developed to assist project planning for the Parkway and Trail Improvements Plan. The estimated acreage of each vegetation association within the limits of disturbance is listed in Table 7.

Table 7. Vegetation Associations within the Conceptual-Level Limits of Disturbance

Vegetation Association	Acreage
Developed, High Intensity	55.92
Developed, Medium Intensity	0.001
Developed, Open Space	27.91
Forested Open Space	2.15
Freshwater Tidal Swamp*	0.23
Low-Elevation Mixed Oak / Heath Forest*	0.009
Maple-Ash Swamp Forest*	0.14
Mesic Mixed Hardwood Forest*	1.95
Oak Floodplain Swamp*	0.00004
Open Water	0.06
Pickerelweed Tidal Marsh*	0.0004
Pond-lily Tidal Marsh*	0.0001
Silver Maple Floodplain Forest*	0.34
Successional Box-elder Floodplain Forest*	0.15
Successional Mixed Deciduous Forest*	2.01
Successional Sweetgum Floodplain Forest*	1.22
Successional Tuliptree Forest (Rich Type)*	0.8
Successional Tuliptree Forest (Typic Type)*	0.34
Successional Vine-Shrubland*	0.18
Successional Virginia Pine Forest*	0.2
Successional Woody Wetland*	0.003
Grand Total	93.6

\*Denotes natural plant community

Most of the vegetation, approximately seven acres, consists of natural forested plant communities providing edge habitats adjacent to the Parkway and Trail. The types of trees found in these communities typically consist of a variety of oak (*Quercus sp.*), tulip poplar (*Liriodendron tulipifera*), American beech (*Fagus grandifolia*), silver maple (*Acer saccharinum*), box-elder (*Acer negundo*), red maple (*Acer rubrum*), sweetgum (*Liquidambar styraciflua*), blackgum (*Nyssa sylvatica*), eastern cottonwood (*Populus deltoides*), green ash (*Fraxinus pennsylvanica*), American elm (*Ulmus americana*), black walnut (*Juglans nigra*), Virginia pine (*Pinus virginiana*), and many other species that may occupy the understory. The forested areas generally consist of trees that range greatly in size and maturity.

Landscaping and Memorial Tree Plantings

The Parkway South Section was created with distinct vegetative landscapes, each with its own character. For example, along the causeway south of Hunting Creek, plantings are low so that the wide-open space of the river surrounds the roadway. Near Belle View, the plantings are savannah-like with large shade trees spread throughout a grassy landscape allowing filtered views to the river (Kelsch P. et al. 2021). Additionally, memorial plantings along the Parkway South Section, which included individual trees, groves, and memorial plaques were sponsored by various women’s groups, and the species of trees chosen typically reflected the Virginian landscape. The concept of “memorial trees” evolved from the initial proposals for state groves to smaller plantings donated by mostly women’s organizations, as public interest in the project grew (Kelsch P. et al. 2021). Table 8 provides the location and description of memorial tree plantings along the Parkway South Section and the organization that sponsored the planting taken from the *Cultural Landscape Report for the Mount Vernon Memorial Highway* (EDAW, Inc. 1992).

Table 8. Location and Description of Memorial Tree Plantings along Parkway South Section

Location	Planting Description	Organization
Highway Bridge Approach	Two District boundary markers with four large American elms; rustic locust post and chain with English ivy and honeysuckle ground cover	The Garden Club of America, Committee of the National Capital
Capital Overlook (Island)	Two large specimen willow oaks	The National Colonial Dames of America, District Chapter
Capital Overlook (Island)	Four red oaks	The Association for the Preservation of Virginia Antiquities
North Washington Street	Three oriental plane trees	The American War Mothers, Alexandria, Virginia
Belle Haven Intersection	Eight honey locusts in honor of eight Virginia presidents	The Mount Vernon Chapter, N.S.D.A.R.
Dyke Island Overlook	Two oriental plane trees	Fairfax County Chapter, N.S.D.A.R.
Collingwood Island	One red oak	The United Daughters of Confederacy, District Chapters
Waynewood	willow oaks	National Society of Colonial Dames of America
Mount Vernon Terminus	One elm	The Maryland Chapter N.S.D.A.R.
Mount Vernon Terminus	Thirteen Virginia cedars from Ferry Farm at Fredericksburg	The National Society of Colonial Dames of America
Mount Vernon Gate Entrance	One specimen dogwood	The Mount Vernon Ladies Association, Col. Dodge, Custodian
Mount Vernon	One official marker	The Bicentennial Commission

Few of the memorial plantings have retained their initial integrity. Many are missing or have been fully or partially replaced and are interspersed with other trees. Since the initial planting of the Parkway, various plans have been implemented to augment or replace the original vegetation. The most significant changes to its vegetative character are the increases in forest cover and the loss of almost all flowering and ornamental vegetation, making the present landscape seem less composed and more natural than when first completed (Kelsch P. et al. 2021). In the 1960s First Lady, Lady Bird Johnson spearheaded the Beatification Program (1964 to 1968) during which, landscape architect Edward D. Stone Jr. designed a planting plan for Columbia Island, which was renamed Lady Bird Johnson Park in 1968 in her honor.

### State-Listed Plants

During public scoping, a letter was received from the Virginia Department of Conservation and Recreation (VDCR), Division of Natural Heritage, citing concerns regarding project impacts to river bulrush (*Bolboschoenus fluviatilis*), a plant species listed as rare in the Commonwealth of Virginia. River bulrush is an emergent member of the sedge family, Cyperaceae, found in shallow marshes, on lake shores, riverside gravel bars, and other wet places. According to VDCR, a population of river bulrush has been documented within Dyke Marsh Wildlife Preserve. VDCR cited water pollution and sedimentation, sea level rise, and invasive species such as *Phragmites australis* as posing the greatest threats to river bulrush populations. River bulrush has been given a G5 (secure) global conservation status by NatureServe, but an S2 (imperiled) status in the Commonwealth of Virginia.

The NPS is also aware of two other state-listed rare plant species that occur in similar habitat. Rough avens (*Geum laciniatum*), given a S2 status in Virginia, has been found at Dyke Marsh Wildlife Preserve and in marshes at Little Hunting Creek. Davis's sedge (*Carex davisii*), given a S1 (critically imperiled) status in Virginia, has been found only at Dyke Marsh Wildlife Preserve.

For more than 15 years, the NPS has been conducting long-term monitoring studies in the National Capital Region, including at the Parkway. The purpose of the studies is to collect long-term data on key natural resources like plant communities, wildlife, and water quality, with the goal of informing future preservation of biodiversity within a broader urban setting (NPS 2023c). The Parkway and Trail offer millions of visitors annually a scenic experience nestled within a highly urbanized region. The loss of vegetation and associated habitat has increased as development and urbanization in the region have increased. The pressures of development, as well as the increase in non-native vegetation, harmful forest pests, such as the emerald ash borer and spotted lanternfly, and the presence of high populations of whitetail deer, present a challenge for future preservation of native plant communities (NPS 2023c).

### Impact Assessment Methodology

Potential impacts to vegetation were assessed based on a review of the Cultural Landscape Inventory for Mount Vernon Memorial Highway – North of Alexandria (Traucht M. et al.), the Cultural Landscape Inventory for Mount Vernon Memorial Highway – South of Alexandria (Kelsch P. et al.), information on rare plants provided by VDCR and the Parkway's Natural Resources Program Manager, and using the *Geospatial Data for the Vegetation Mapping Inventory Project of George Washington Memorial Parkway* (National Capital Region 2018) to estimate the extent of vegetation removal within the conceptual-level limits of disturbance developed to assist with project planning for the proposed Parkway and Trail improvements.

### Impacts of the No Action Alternative

The NPS would continue to maintain the Parkway South Section and Trail under the no action alternative. Management actions would include routine maintenance and repairs to maintain operation of the roadway, trail, and supporting infrastructure and amenities. There would be no significant impacts to existing vegetation under the no action alternative because maintenance and repairs would be primarily confined to the existing footprint of the roadway and Trail. Any impacts to vegetation under the no action alternative would primarily involve the removal of overhanging vegetation and encroachment to promote user safety. Organizations like Weed Warriors would continue to work within the Parkway to remove invasive plants on a voluntary basis.

### Impacts of the Parkway South Section and Trail Improvements

The NPS established a conceptual-level limits of disturbance for the Parkway and Trail improvements to develop planning estimates of tree removal, impervious surface increases, stormwater management requirements, and for other assessments. Then, using the *Geospatial data for the Vegetation Mapping Inventory Project of George Washington Memorial Parkway* (National Capital Region 2018), the NPS was able to estimate the acreage of vegetation within the limits of disturbance that may potentially be removed during Plan implementation. The results of the analysis are provided in Table 7. A total of approximately seven acres of natural forest communities lies within the conceptual-level limits of disturbance along the edge of the Parkway and Trail. The remaining natural plant communities consist collectively of less than 0.5 acre of wetlands and successional vine-shrublands.

Through avoidance and minimization during detailed design and construction, the NPS anticipates the amount of forest clearing would be reduced by as much as 50%, to approximately 3.5 acres. Tree surveys would be conducted as part of the detailed design process that would be used to identify opportunities to avoid and minimize tree removal, which is primarily related to trail widening, trail realignment at a few select locations, drainage improvements, and installation of stormwater management best practices along the Parkway and Trail. Design objectives would include avoiding impacts to trees that are 18-inches diameter and greater as much as possible, and avoiding impacts to legacy trees, which include memorial trees and other plantings that are part of the original landscape design, and trees that remain since prior to construction of the Parkway.

During construction, fencing would be installed around the critical root zones of trees planned for protection to prevent physical damage from vehicles and equipment, as well as from excavation, soil compaction, or stockpiling. If roots must be impacted, such as addressing root heaves for asphalt rehabilitation, the NPS would use root pruning techniques and investigate other opportunities to minimize tree impacts to ensure that as many trees as possible maintain their health and longevity. Impacted trees and shrubs would be replaced on a one-to-one dbh ratio to the extent practicable. Replanting would reflect the native plant communities and the cultural landscape character of the Parkway. The NPS would also require the construction contractor clean vehicles and equipment offsite, and to use weed-free construction materials, to prevent the transport of invasive plant seeds, propagules, and other weed seeds, into the Parkway. Disturbed areas would be stabilized with native vegetation immediately following construction to prevent invasive species establishment.

The NPS intends to avoid construction-related impacts to wetlands, including wetland vegetation, as much as possible. Construction access in wetlands would be limited to rehabilitation of Parkway bridges, rehabilitation / replacement of trail bridges, and culvert repair work. The NPS would establish access routes within wetlands that minimize impacts to trees and could require the construction contractor to place temporary matting on top of herbaceous wetland vegetation during construction to avoid permanent disturbance. The NPS would conduct surveys for rare plants, including river bulrush, rough avens, and **Davis's sedge**, where construction or construction access is proposed in wetlands, and would develop alternative designs that avoid identified individuals or populations of any of the state-listed species of concern. The NPS would consult closely with VDCR and the Virginia Department of Wildlife Resources (VDWR) on appropriate survey methods and to identify added measures to avoid and minimize disturbance to rare plants.

The NPS anticipates that adverse impacts from vegetation removal required to implement the proposed improvements would be relatively minor, since impacted trees and shrubs would be replaced on a one-to-one dbh ratio to the extent practicable. As such, the acreage of loss to vegetation would be minimal.

### Cumulative Impacts

Current and future projects and actions identified for the cumulative impacts analysis, including the Parkway North Section Rehabilitation, recommended improvements described in the TRI CLI / EA, the Long Bridge project, the Memorial Circle Safety Improvements, CC2DCA Intermodal Connector, the DCA Roadway Network Improvements and Associated Development, and Potomac River Generating Station Power Plant Redevelopment are expected to result in varying degrees of vegetation impacts. The Parkway North Section Rehabilitation is likely to result in more vegetation impacts than the other projects, although the NPS is actively engaged with the design-build team to identify every opportunity to minimize impacts, particularly as it relates to construction access for culvert repair work. Overall, the proposed Parkway and Trail improvements has the potential to add a small adverse incremental impact to the adverse impacts of other projects and actions, resulting in a minor adverse cumulative impact to vegetation. There would be no cumulative impacts to vegetation under the no action alternative.

## WILDLIFE AND HABITAT

### Affected Environment

The Parkway is home to many species of wildlife. The Parkway boasts biodiverse natural areas that support at least 25 species of mammals including five species of bats, beaver (*Castor canadensis*), eastern chipmunk (*Tamias striatus*), opossum (*Didelphis marsupialis*), eastern cottontail (*Sylvilagus floridanus*), eastern gray squirrel (*Sciurus carolinensis*), raccoon (*Procyon lotor*), red fox (*Vulpes fulva*), gray fox (*Urocyon cinereoargenteus*), striped skunk (*Mephitis mephitis*), whitetail deer (*Odocoileus virginianus*), as well as many others (NPS 2023c). Amphibians are abundant throughout the Parkway, with at least 13 species of toads and frogs, salamander species from both the Ambystomidae and Plethodontidae families, as well as the eastern newt (*Notophthalmus viridescens*) from the Salamadridae family. There are 21 species of reptiles known to inhabit the Parkway, including 11 snakes, two species of skinks, and eight species of turtle (NPS 2023c). Additionally, with at least 243 species of birds recorded within the Parkway, birding hotspots occur throughout the Parkway. A popular waterfowl viewing location, at the mudflats just north of Dyke Marsh Wildlife Preserve, allows visitors to view species of plovers, sandpipers, and other wading birds during spring and fall migrations (NPS 2023c).



A variety of wildlife habitat occurs along the Parkway South Section and Trail. However, only approximately 7.5 acres of the 93.6 acres of area within the conceptual-level limits of disturbance consists of natural plant communities that provide suitable wildlife habitat. These habitats consist primarily of successional forests, vine-shrublands, and wetland habitats. Approximately two additional acres within the limits of disturbance provides forested open space adjacent to the Parkway and Trail that may be suitable for birds and small mammals accustomed to surviving within a planned landscape.

The NPS obtained an Official Species List from the USFWS' Information for Planning and Consultation (IPaC) webpage on June 7, 2023. The list identified two bat species protected under the Endangered Species Act and 23 migratory birds with the potential to occur within the conceptual-level limits of disturbance developed during project planning. The list is provided in Appendix A. The following sections describe these species with added detail.

#### Northern Long-eared Bat

The USFWS listed the northern long-eared bat as threatened on April 2, 2015, and finalized the proposal to uplist the species to endangered status on November 30, 2022. The USFWS found that listing was warranted due to the recent severe and ongoing decline of the species caused by white-nose syndrome. During the summer, northern long-eared bats inhabit forests and roost singly or in colonies in the cracks, crevices, and bark of both live and dead trees (Lacki and Schwierjohann 2001). They have also been found roosting in structures such as buildings, barns, sheds, cabins, and bridges. Foster and Kurta (1999) have indicated that northern long-eared bats do not depend on a particular species of tree for roosting but tree characteristics, such as structure and decay, are important. During late summer and early autumn, cave-dwelling bats migrate from their summer habitats to swarming sites where breeding occurs. Suitable fall swarming habitat for northern long-eared bats consists of forested habitats typically within five miles of a hibernaculum.

#### Tricolored Bat

The USFWS proposed listing the tricolored bat as endangered under the Endangered Species Act on September 14, 2022, based on the rapid decline of winter colony abundance (USFWS 2023). The tricolored bat faces extinction primarily due to the impacts of white-nose syndrome, which has caused an estimated 90% decline in affected colonies across most of the species' range. **The tricolored bat is the smallest of the bat's native to North America, once commonly ranging across the eastern and central US and portions of southern Canada, Mexico, and Central America.** It can be distinguished by its tricolored fur and often appears yellow to orange. In the spring, summer, and fall, the tricolored bat is generally found in forested habitats where they roost in trees, primarily among leaves of live, or recently dead, deciduous hardwoods, but may also be found in Spanish moss, pine trees and occasionally human structures such as road-associated culverts (USFWS 2023).

#### Migratory Birds

Many of the birds found in the study area for the Parkway South Section and Trail Improvements are year-round inhabitants, while others are neotropical migratory birds traveling through the Parkway from South and Central America, the Caribbean, and southern US to North American nesting habitats. Table 9 provides a list of the 23 migratory bird species of concern that may occur within the vicinity of the proposed improvements according to the USFWS IPaC database. In addition, the NPS has observed numerous common migratory bird species within the Parkway that were not listed in IPaC, including pied-billed grebe (*Podilymbus podiceps*), double-crested cormorant (*Nannopterum auritum*), great egret (*Ardea alba*), green

heron (*Butorides virescens*), osprey (*Pandion haliaetus*), spotted sandpiper (*Actitis macularius*), least sandpiper (*Calidris minutilla*), Forster's tern (*Sterna forsteri*), yellow-billed cuckoo (*Coccyzus americanus*), ruby-throated hummingbird (*Archilochus colubris*), eastern wood-pewee (*Contopus virens*), great crested flycatcher (*Myiarchus crinitus*), eastern kingbird (*Tyrannus tyrannus*), yellow-throated vireo (*Vireo flavifrons*), warbling vireo (*Vireo gilvus*), red-eyed vireo (*Vireo olivaceus*), tree swallow (*Tachycineta bicolor*), northern rough-winged swallow (*Stelgidopteryx serripennis*), barn swallow (*Hirundo rustica*), blue-gray gnatcatcher (*Polioptila caerulea*), **Swainson's thrush** (*Catharus ustulatus*), worm eating warbler (*Helmitheros vermivorum*), black and white warbler (*Mniotilta varia*), common yellowthroat (*Geothlypis trichas*), northern parula (*Setophaga americana*), scarlet tanager (*Piranga olivacea*), orchard oriole (*Icterus spurius*), Baltimore oriole (*Icterus galbula*), and several species of warbler (family Parulidae).

Table 9. Migratory Birds with Potential to Occur along the Parkway South Section and Trail according to USFWS

Species Common Name	Species Scientific Name
American oystercatcher	<i>Haematopus palliatus</i>
bald eagle	<i>Haliaeetus leucocephalus</i>
black-billed cuckoo	<i>Coccyzus erythrophthalmus</i>
blue-winged warbler	<i>Vermivora cyanoptera</i>
bobolink	<i>Dolichonyx oryzivorus</i>
Canada warbler	<i>Cardellina canadensis</i>
cerulean warbler	<i>Setophaga cerulea</i>
chimney swift	<i>Chaetura pelagica</i>
eastern whip-poor-will	<i>Antrostomus vociferus</i>
golden eagle*	<i>Aquila chrysaetos</i>
gull-billed tern	<i>Gelochelidon nilotica</i>
Hudsonian godwit*	<i>Limosa haemastica</i>
Kentucky warbler	<i>Oporornis formosus</i>
king rail	<i>Rallus elegans</i>
lesser yellowlegs*	<i>Tringa flavipes</i>
prairie warbler	<i>Setophaga discolor</i>
prothonotary warbler	<i>Protonotaria citrea</i>
red-headed woodpecker	<i>Melanerpes erythrocephalus</i>
ruddy turnstone*	<i>Arenaria interpres morinella</i>
rusty blackbird*	<i>Euphagus carolinus</i>
short-billed dowitcher*	<i>Limnodromus griseus</i>
willet	<i>Tringa semipalmata</i>
wood thrush	<i>Hylocichla mustelina</i>

\*Breeding occurs elsewhere

The Migratory Bird Treaty Act prohibits the take (i.e., wounding, killing, etc.) of migratory birds, including egg parts and occupied nests, even when such activities are unintentional. Executive Order 13186 *Responsibilities of Federal Agencies to Protect Migratory Birds* directs federal agencies to design migratory bird habitat and population conservation measures into agency plans and planning processes; evaluate the impacts of actions and agency plans on migratory birds; and develop and use practices that will lessen the amount of unintentional take.

### Bald Eagle

The lower Potomac River south of Washington, DC is an important bald eagle habitat area. Bald eagles prefer habitats near large bodies of open water with an abundance of fish. They require mature stands of forests for roosting, nesting, and perching. At least one bald eagle nest has been identified within the north section of the Parkway, and according to the Center for Conservation Biology's Virginia Eagle Nest Locator, there are six nest locations along the Potomac River between Alexandria and Mount Vernon, but it is unknown if the nests are active. The primary buffer (i.e., where human activities are considered to be detrimental to breeding pairs) and secondary buffer (i.e., where human activities are considered to impact the integrity of the primary buffer) of five of these nest locations encompass areas where proposed improvements would be made on the Parkway and / or Trail. Although the bald eagle was removed from the federal list of threatened and endangered species in 2007, the Bald and Golden Eagle Protection Act and associated **National Bald Eagle Management Guidelines** continue to regulate any "disturbances" to these birds.

For more than 15 years, the NPS has been conducting long-term monitoring studies in the National Capital Region, including at the Parkway. The purpose of the studies is to collect long-term data on key natural resources like plant communities, wildlife, and water quality, with the goal of informing future preservation of biodiversity within a broader urban setting (NPS 2023c). The Parkway and Trail offer millions of visitors annually a scenic experience nestled within a highly urbanized region. The loss of habitat, and resulting loss of wildlife, has increased as development and urbanization in the region have increased. The pressures of development, as well as the increase in non-native vegetation, harmful forest pests, such as the emerald ash borer and spotted lanternfly, and the presence of high populations of whitetail deer, present a challenge for future preservation of natural habitats (NPS 2023c).

### Impact Assessment Methodology

Potential impacts to wildlife were assessed by considering construction-related habitat loss within the conceptual-level limits of disturbance developed to assist with project planning for the proposed Parkway and Trail improvements. The NPS reviewed the Official Species List generated by IPaC to identify the potential presence of any species protected under the Endangered Species Act. Additionally, the NPS used IPaC to evaluate the probability of presence within the project study area for each migratory bird species.

### Impacts of the No Action Alternative

The NPS would continue to maintain the Parkway South Section and Trail under the no action alternative. Management actions would include routine maintenance and repairs to maintain operation of the roadway, trail, and supporting infrastructure and amenities. There would be no impacts to wildlife under the no action alternative because maintenance and repairs would be primarily confined to the existing footprint of the roadway and Trail and would not involve considerable habitat disturbance.

## Impacts of the Parkway South Section and Trail Improvements

Impacts to wildlife from Plan implementation would primarily be caused by vegetation removal and the associated loss of habitat. A total of approximately seven acres of natural forest communities, 0.5 acre of wetlands and successional vine-shrublands, and two acres of forested open space lies within the conceptual-level limits of disturbance along the edge of the Parkway and Trail. The NPS anticipates that adverse impacts to wildlife from vegetation removal and associated habitat loss required to implement the proposed improvements would be minimal, since impacted trees and shrubs would be replaced on a one-to-one dbh ratio to the extent practicable. As such, the acreage of habitat loss would be small compared to the amount of habitat within the Parkway.

Upon obtaining the Official Species List from IPaC, the NPS completed the determination key for the northern long-eared bat, which resulted in a *May Affect* **determination likely due to the project's proximity** to a known occurrence. However, the NPS would implement several conservation measures to minimize potential effects to the northern long-eared bat and tricolored bat. Based upon the biological assessment (FHWA or NPS), the NPS would implement a time of year restriction on removal of trees 3-inches dbh or greater from April 1 to November 14, or as determined through consultation with USFWS. The NPS intends to minimize tree removal to the extent possible. Opportunities to avoid and minimize tree removal would be evaluated as part of the detailed design process. The NPS would also implement a similar time of year restriction on repairs and / or rehabilitation work on bridges determined suitable for roosting, although installation of exclusion netting could mitigate the time of year restriction on bridge work. The NPS may also conduct presence / probable absence **surveys using protocols detailed in the USFWS's Range-Wide Indiana Bat and Northern Long-Eared Bat Survey Guidelines** dated March 2023. The NPS submitted a consultation package with a request for concurrence of a *May Affect, Not Likely to Adversely Affect* determination to USFWS on August 29, 2023, for the northern long-eared bat. The consultation package is included in Appendix A. Section 7 consultation is ongoing as of this EA.

The NPS evaluated the probability of presence data provided by IPaC to determine when the migratory bird species listed in Table 9 are most likely to occur at the Parkway and if potential occurrences are within their respective breeding seasons. Six of the 23 migratory bird species identified by IPaC do not breed within the vicinity of the Parkway or Trail. Of the remaining 17 species, the bald eagle, chimney swift, prairie warbler, prothonotary warbler, red-headed woodpecker, and wood thrush have the highest likelihood of breeding at the Parkway of the migratory birds listed in Table 9. All other species, including migratory birds not identified by IPaC but observed in the Parkway, are likely to occur on a transient basis. Except for the bald eagle, the April 1 to November 14 time of year restriction on tree removal that would be implemented by the NPS as a conservation measure to minimize effects to the northern long-eared bat and tricolored bat also covers most of the breeding season for the migratory birds, which generally ranges from early April to early September. As such, NPS anticipates that implementing the time of year restriction on tree removal would be sufficient to reduce the likelihood of an incidental take of any migratory birds. Vegetation removal and the associated habitat loss would be the only anticipated impact to migratory birds.

Although the NPS is not aware of any active eagle nests in the vicinity of the Parkway South Section and Trail **Improvements, the Center of Conservation Biology's Virginia Eagle Nest Locator** identifies six nest locations that have been active within the last 10 years. Five of the six nest locations have primary and secondary buffers that extend into the project limits, and two of the six nests are located close to the Trail. Assuming there are active nests in the vicinity, the NPS does not expect the proposed improvements would affect an eagle's ability to hunt for prey on the Potomac River or associated tributaries and marshes. However, tree

clearing and construction noise and vibration in the vicinity of an active bald eagle nest can have detrimental effects to breeding pairs. As such, if active eagle nests are identified, the NPS would restrict construction within the primary and / or secondary buffers of any nest during the breeding season from December 15 to July 15 in accordance with USFWS requirements. Additional measures and / or restrictions may be identified through coordination with USFWS, VDCR, and VDWR. Using conservation measures, the NPS anticipates that the proposed improvements would not disturb bald eagles or their nests.

### Cumulative Impacts

Current and future projects and actions identified for the cumulative impacts analysis, including the Parkway North Section Rehabilitation, recommended improvements described in the TRI CLI / EA, the Long Bridge project, the Memorial Circle Safety Improvements, CC2DCA Intermodal Connector, the DCA Roadway Network Improvements and Associated Development, and Potomac River Generating Station Power Plant Redevelopment are all anticipated to have varying degrees of effects to wildlife, primarily caused by habitat loss. The responsible agencies have been and will continue consulting with the USFWS, and the Virginia and District resource agencies, as appropriate, to minimize and / or mitigate adverse effects to wildlife. Overall, the proposed Parkway and Trail improvements have the potential to add a small adverse incremental impact to the adverse impacts of other projects and actions, resulting in a minor adverse cumulative impact to wildlife. There would be no cumulative impacts to wildlife under the no action alternative.

## HISTORIC DISTRICTS

### Affected Environment

To identify potentially impacted historic properties for the NEPA analysis, the NPS used the Area of Potential Effects (APE) for the Parkway South Section and Trail Improvements that has been developed in accordance with Section 106 of the National Historic Preservation Act as part of a separate but parallel regulatory process. The APE is defined as “the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The APE is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking” (36 CFR 800.16[d]).

The NPS identified several historic properties within the APE, including all historic districts, individually listed historic properties, and properties that have been determined eligible for listing in the National Register, the DC Inventory of Historic Sites, the Virginia Landmarks Register, and County-designated historic landmarks. Historic properties within the APE include:

- Parkway / Mount Vernon Memorial Highway
- Mount Vernon
- Fort Hunt Park
- Wellington at River Farm
- Alexandria Historic District
- Washington National Airport Terminal and South Hangar Line
- Arlington Memorial Bridge
- Theodore Roosevelt Island



These historic properties are described in detail in the Assessment of Effects Report and their boundaries are indicated on the APE mapping that is available for public review at the PEPC website: [Park Planning GWMP South \(nps.gov\)](https://www.nps.gov/planning/gwmp-south).

### Impact Assessment Methodology

Potential impacts to historic properties were analyzed in consideration of regulations implementing Section 106 of the National Historic Preservation Act and guidelines stated within the **Secretary's Standards** (NPS 1995b). The analysis of the potential impacts of the project on historic properties focused on whether the **proposed undertaking would** "...alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association" (36 CFR 800.5(a)(1)).

### Impacts of the No Action Alternative

The NPS would continue to maintain the Parkway South Section and Trail under the no action alternative. Management actions would include the minimum rehabilitation and repairs necessary to maintain operation of the roadway, trail infrastructure, and amenities. The concrete pavement of the Parkway South Section would continue to deteriorate, requiring frequent maintenance and spot repairs, and safety and drainage issues would continue to occur. FHWA would continue to conduct scheduled structural inspections of the roadway bridges to ensure they are safe for motorists. The NPS would conduct only minor structural repairs on the bridges under the no action alternative until comprehensive rehabilitation efforts are necessary that would occur under other future planning decisions. Along the Trail, deteriorating trail and bridge surfaces would require frequent maintenance and spot repairs, and the potential for user conflicts and crashes, as well as trail hazards, would continue to increase. The no action alternative may result in adverse effects should routine maintenance and repairs fail to stop deterioration of the roadway, trail, and drainage infrastructure that diminishes the integrity of design, materials, and workmanship of the Parkway.

### Impacts of the Parkway South Section and Trail Improvements

This section summarizes the potential effects of the Parkway South Section and Trail Improvements on the historic properties identified within the APE as part of the Section 106 compliance process.

#### Parkway / Mount Vernon Memorial Highway

The proposed action incorporates many changes, including physical alterations, within the Parkway historic property, such as roadway, trail, and trail bridge infrastructure improvements; roadway and intersection safety improvements and a road diet; roadway and trail drainage improvements and stormwater management; trail safety, accessibility, and wayfinding improvements; and trail amenity upgrades. Table 10 provides a summary of potential effects of the proposed improvements to the Parkway.

Table 10. Potential Effects of the Proposed Improvements to the Parkway and Trail

Improvement	Potential Effects
Road Surface and Bridges	<ul style="list-style-type: none"> <li>Improvements include replacement of concrete road panels, some of which are from the original construction. However, the concrete panels would be replaced in-kind, and their replacement would not diminish the material integrity or design of the Parkway.</li> <li>Four bridges that contribute to the significance of the Parkway would be rehabilitated, including the Huntington Creek Bridge, the Alexandria Avenue Overpass Bridge, the Fort Hunt Road Overpass Bridge, and the Little Hunting Creek Bridge. The extent of rehabilitation would be based on future FHWA inspections. All efforts would be made to retain, repair, or replace in-kind the character-defining features of the bridges.</li> </ul>
Traffic Calming, Safety, and Intersection Modifications	<ul style="list-style-type: none"> <li>The proposed road diet would include additional striping and signage and removal of excess pavement that would be designed to be context sensitive.</li> <li>Improvements proposed at 12 intersections include enhanced signage, pavement markings, lighting, and the removal of encroaching vegetation. The historic median alignment would be partially restored at three intersections and fully restored at three other intersections. The historic outer curb alignment would be restored at eight of the intersections. Intersection modifications would follow the <b>Secretary's Standards and would not diminish the Parkway's significance or integrity of design, materials, feeling, and association.</b></li> <li>Crosswalks and sidewalks would be constructed at several intersections to provide safe connections between neighborhoods and existing facilities east of the Parkway, such as the Trail and bus stops. These crosswalks and pathways would be designed to be sensitive to the road design and landscape and would not diminish the Parkway's <b>significance or integrity.</b></li> <li>Replacement of existing guardrail or installation of guardrail in spot locations recommended by FHWA would add new, non-contributing elements to the historic district, but would not be expected to affect scenic views and vistas and would be consistent with the character of the cultural landscape.</li> </ul>
Trail Alterations	<ul style="list-style-type: none"> <li>The proposed Trail improvements would include increasing the trail width, realigning trail curves, replacing four bridges, and rehabilitating 29 additional bridges. Although the improvements would widen the Trail with minor realignments, the use and circulation pattern would remain intact and the integrity of location, setting, design, feeling, and association would not be diminished.</li> <li>Trail widening and incorporation of stormwater management along the trail and Parkway would require the removal of approximately 3.5 acres of forested area; vegetation, including the trees along <b>the Parkway, contributes to the historic district's setting.</b> Tree surveys would be conducted during detailed design to identify ways to minimize or avoid tree removal to the extent feasible, including legacy trees, memorial trees. Tree protection measures would be used to minimize tree impacts. Impacted trees and shrubs would be replaced on a one-to-one dbh ratio to the extent practicable. Therefore, selective tree removal and vegetation maintenance would not diminish the integrity of <b>the district's setting and character.</b></li> </ul>
Drainage Features	<ul style="list-style-type: none"> <li>Rehabilitation and replacement of pipes and culverts, many of which are historic, would follow the <b>Secretary's Standards.</b> Any new pipes or culverts with visible outlets would be designed to replicate the existing structures.</li> <li>Trail widening would increase impervious surface area requiring stormwater management. BMPs would be incorporated into the surrounding landscape to avoid impacts to the integrity of the Parkway's <b>setting, design, feeling, and association.</b></li> </ul>
Amenity Upgrades	<ul style="list-style-type: none"> <li>Upgrades to benches, bike racks, bike railings, and water fountains; new Capital Bikeshare Stations, and a new restroom facility at Gravelly Point, would be sited and designed so as not to diminish the significance or integrity of the Parkway or its vistas.</li> </ul>

The proposed improvements would be completed in adherence **with the Secretary's Standards and would** not diminish the significance or integrity of the Parkway. Physical changes to the roadway would not alter its location, size, or scale. Repairs to or replacement of concrete pavement and drainage features, as well as the addition of safety improvements and amenity features, would be designed to be sensitive to and compatible with the Parkway. The proposed road diet and intersection improvements would cause changes in the circulation that would be compatible with the original design intent and character of the Parkway. The abundance and visibility of recreational activities, the relationships to adjoining residential properties, filtered and unobstructed views of the Potomac River, and the planting designs would remain intact. Character-defining road design elements, such as long spiral curves, limited at-grade intersections, tear-drop intersections, and the concrete surface, would be maintained or restored.

Improvements to the Trail would not be incompatible with the Parkway as the trail widening would be done with consideration for minimizing tree removal and sensitively implementing stormwater management BMPs. Physical modifications would result in visual effects primarily from added amenities and signage that would be sensitively placed to not affect the significance or integrity of the Parkway. The visual aesthetic of the Parkway and Trail would be maintained and visual connections between the road, trail, landscape features, surrounding neighborhoods, and scenic views of the Potomac River and other monuments and memorials would be unchanged. Vegetation management, including clearing encroachment and tree overhangs, would remove obstructions at views and vistas.

Individually and cumulatively, improvements to the Parkway road surface and bridges, intersections, Trail, drainage features, and amenities would not diminish the existing integrity of any of these characteristics, and the significance of the Parkway would be retained. As such, the proposed improvements would have no adverse effect to the George Washington Memorial Parkway.

#### Mount Vernon

As part of the proposed improvements, the NPS would make minor physical alterations to the Parkway and Trail within Mount Vernon to improve traffic circle safety and pedestrian crossings and to establish a Capital Bikeshare Station at the existing parking lot. However, these alterations are minor and would not diminish the significance or integrity of the property. Visual effects would also be minor and would not diminish the integrity of location, setting, design, workmanship, materials, feeling or association of the historic property. As such, the proposed action would have no adverse effect to Mount Vernon.

#### Fort Hunt Park

Proposed improvements within the historic property boundary of Fort Hunt Park under this Plan would include the placement of a Capital Bikeshare Station at the far eastern edge of the property. This change would be reversible and would have a minor visual effect, not diminishing the integrity of the property. In addition, a portion of the park may be used for temporary construction staging. Potential staging areas would be located to be visually unobtrusive. The NPS would improve trail warning signage and pavement markings under the Fort Hunt Road Overpass Bridge, which is outside the historic property boundary and would have very minor visual effects due to the sloping topography of the site. The proposed improvements would not diminish the significance and integrity of Fort Hunt Park. As such, the proposed action would have no adverse effect to Fort Hunt Park. Improvements to Fort Hunt Park are occurring under a separate NPS action as part of the Fort Hunt Park Site Development Plan EA (2015).

### Wellington at River Farm

No improvements are proposed within the historic property boundary of Wellington at River Farm. Also, proposed improvements on the Parkway South Section would not be visible from Wellington at River Farm because of the intervening distance and separation by East Boulevard Drive. As such, the proposed action would have no effect to Wellington at River Farm.

### Alexandria Historic District

The proposed trail widening and replacement of Trail Bridge 25 within Jones Point Park would result in minor physical alterations within the Alexandria Historic District. However, these alterations, both physical and visual, would not affect the significance or integrity of the historic district, which is drawn from the significance of the 18<sup>th</sup> through early 20<sup>th</sup> century architecture. Visual changes would be indistinguishable from the new construction of the Woodrow Wilson Bridge above the section of Trail and the intervening distance and separation by dense vegetation at Jones Point Park. As such, the proposed action would have no adverse effect to the Alexandria Historic District.

### Washington National Airport Terminal and South Hangar Lane

The proposed improvements would not result in physical alterations within the historic property boundary of the Washington National Airport Terminal. Also, due to the intervening distance and separation by Thomas Avenue, vegetation, and topography, the proposed improvements would not be visible from the property. As such, the proposed action would have no effect to the Washington National Airport Terminal and South Hangar Lane.

### Arlington Memorial Bridge

Proposed widening of the Trail would result in physical modifications to the Parkway beneath the Arlington Memorial Bridge. However, the proposed modifications would not directly affect the historic bridge structure. Visual effects from the physical modifications would be minor and would not diminish the significance or integrity of the bridge. As such, the proposed action would have no adverse effect to the Arlington Memorial Bridge.

### Theodore Roosevelt Island

Minor improvements in the TRI parking lot to meet ABAAS requirements and improve Trail user safety would not result in physical alterations within the historic property boundary of TRI. Also, due to the intervening distance and separation by the Potomac River and vegetation, the proposed improvements would not be visible from the property. As such, the proposed action would have no effect to TRI.

To conclude, the proposed Parkway and Trail improvements would result in no adverse effects to the historic districts within the APE. **Improvements would be implemented following the Secretary's Standards** and new features would be placed and designed so as not to diminish the integrity of location, setting, design, feeling, and association of the historic properties. The NPS is pursuing the negotiation and execution of a programmatic agreement in accordance with 36 CFR 800.6(c) with NCPC, the DC HPO, and VDHR. The draft programmatic agreement is included in Appendix D. The agreement defines the continued Section 106 consultation process for the identification and evaluation of resources, and the resolution of any adverse effects on National Register-eligible historic properties associated with the Parkway South Section and Trail Improvements Plan. The agreement also includes stipulations for design review by consulting parties to ensure **adherence to the Secretary's Standards and that adverse effects would not occur from those**

portions of the project that are subject to additional design and refinement, including bridge rehabilitation, drainage improvements, and culvert replacement or repairs.

### Cumulative Impacts

Current and future projects identified for the cumulative impact analysis, including the Parkway North Section Rehabilitation, the improvements recommended in the TRI CLI/EA, the Long Bridge project, the Memorial Circle Safety Improvements, the CC2DCA Intermodal Connector, the DCA Roadway Network Improvements and Associated Development, and the PRGS Power Plant Redevelopment, have the potential to affect historic properties. As part of these projects, the responsible agencies would have or would continue to consult with DC HPO, VDHR, and consulting parties to minimize the adverse effects in accordance with Section 106 of the NHPA. The proposed Parkway South Section and Trail Improvements are not anticipated to result in adverse effects to historic properties; The NPS would continuously evaluate potential affects during the design process in consultation with NCPC, the DC HPO, VDHR, and the consulting parties as part of a programmatic agreement. As such, no cumulative impacts are anticipated from the proposed improvements. There may be an adverse cumulative impact under the no action alternative if deterioration of the roadway, trail, and drainage infrastructure diminish the integrity of design, materials, and workmanship of the Parkway.

## ARCHEOLOGICAL RESOURCES

### Affected Environment

The vicinity of Washington, DC, including the Virginia shore of the Potomac River, was used for various purposes by Native Americans before the arrival of European settlers. Several Algonquian-speaking tribes lived in the region in the early 1600s. They lived in semi-permanent villages in the Potomac River Valley that were typically located on bluffs, terraces, or high floodplains near rivers or major tributaries, where they farmed and engaged in seasonal hunting, fishing, and gathering. They also built seasonal satellite camps along smaller interior streams. Native Americans lived in settlements on both sides of the river. The largest was comprised of 100 houses and permanent defenses. Written records note villages at the mouths of both Hunting Creek and Little Hunting Creek. The land now occupied by Fort Hunt Park itself lay in the territory of the Tauxenents, a tribe centered at Mason Neck, Virginia. European settlers subsequently settled the area, displacing these tribes. Different portions of the land now occupied by the Parkway were developed and disturbed to various degrees over the past 400 years, and the array of potential archaeological sites demonstrates the extensive history of human occupation along the shoreline.

On May 9, 2023, New South Associates, Inc. completed a draft *Phase IA Archaeological Overview for the Proposed Rehabilitation of the George Washington Memorial Parkway (South Section) and Mount Vernon Trail*. The draft report notes that 9.5 miles of the roughly 18 miles of Parkway South Section and Trail assessed have potential for the presence of archeological resources. Most of the high potential areas are located south of Alexandria where the landscape remained rural in nature for an extended period and lacked widespread industrial activity. Additionally, 14 previously recorded archeological sites registered in V-CRIS are located within 250 feet of the Parkway South Section and within 50 feet of the Trail. Two of the 14 sites have been evaluated for their National Register eligibility and were recommended potentially eligible. Both are Middle Woodland archeological sites containing numerous precontact artifacts located in the vicinity of Waynewood Boulevard. The remaining sites have not been evaluated for their National Register eligibility. Areas determined to have archeological potential are indicated on the APE mapping included with the



Assessment of Effects Report that is available for public review at the PEPC website: [Park Planning GWMP South \(nps.gov\)](https://www.nps.gov/parkplanning/gwmp-south). Known archeological site locations are not identified due to the sensitive nature of the information.

### Impact Assessment Methodology

Potential impacts to archeological resources were assessed based on a review of the recent Phase IA archeological overview prepared by New South Associates, Inc. (2023) and a conceptual-level limits of disturbance developed to assist with project planning for the proposed Parkway and Trail improvements.

### Impacts of the No Action Alternative

The NPS would continue to maintain the Parkway South Section and Trail under the no action alternative. Management actions would include routine maintenance and repairs to maintain operation of the roadway, trail, and supporting infrastructure and amenities. There would be no impacts to archeological resources under the no action alternative because maintenance and repairs would be primarily confined to the existing footprint of the roadway and Trail and would not involve considerable ground disturbance.

### Impacts of the Parkway South Section and Trail Improvements

Two archeological sites potentially eligible for listing in the National Register and an additional 12 sites that have not been evaluated were identified in a recent Phase IA archeological overview completed for NPS for the Parkway South Section and Trail Improvements. Both National Register-eligible sites and 10 of the 12 unevaluated sites fall partially within the conceptual-level limits of disturbance. Each of the National Register-eligible sites are located along the Parkway and Trail south of Alexandria and have the potential to be disturbed by construction activities such as excavations, site grading, and vegetation removal.

Construction on the Parkway South Section would mostly be confined to the existing roadway and areas previously disturbed by past roadway construction. However, ground disturbance from drainage improvements, implementation of stormwater management BMPs, installation of pedestrian paths, and other small-scale improvements may result in ground disturbance within these known sites and within areas of archeological potential. Similarly, ground disturbance related to the Trail improvements would generally be limited to the extent of trail widening, trail realignments, drainage improvements, installation of stormwater management BMPs, vegetation clearing, and installation of the new restroom facility with a possible wastewater lift station at Gravelly Point. Trail bridges requiring replacement and repair would utilize existing bridge footings to the extent possible to limit ground disturbance, although it may be determined during bridge design that new or additional footings are necessary.

The NPS intends to develop designs for the proposed Parkway and Trail improvements that avoid impacts to significant archeological sites. Opportunities for avoidance may include relocating improvements outside of archeologically sensitive areas, shifting the Trail alignment away from known sites, and reducing the extent of trail widening. If avoidance of a known site is not possible, the NPS would consult with VDHR and / or DC HPO to develop an appropriate plan to investigate the site to delineate the site boundaries more accurately and / or evaluate the sites National Register eligibility. Additionally, the NPS would conduct subsurface investigations at localized areas where ground disturbance is unavoidable within areas of archeological potential that have not been surveyed. Construction in areas identified to have low or no archeological potential may be monitored to ensure intact archeological deposits are not disturbed. Archeological monitoring and discoveries plan may also be used, either in conjunction with pre-

construction investigations, or as an alternative, to aid in reducing and avoiding impacts to archeological resources during construction.

While the proposed action would incorporate precautions to avoid physical disturbance to archeological resources, the extent of impacts to archeological resources is unknown at this time. The NPS is pursuing the negotiation and execution of a programmatic agreement in accordance with 36 CFR 800.6(c) that defines the continued consultation process for the identification and evaluation of resources, and the resolution of any adverse effects on National Register-eligible archeological resources associated with the Parkway South Section and Trail Improvements Plan. The NPS would work with the DC HPO, VDHR, and the consulting parties, to identify strategies to avoid, minimize, and mitigate the adverse effects that may result to archeological resources after additional survey and subsurface investigations are conducted during design phases of Plan implementation. Those measures would be outlined and included within the programmatic agreement, which is included in Appendix D.

### Cumulative Impacts

Most of the current and future projects and actions identified for the cumulative impacts analysis, including the Memorial Circle Safety Improvements, CC2DCA Intermodal Connector, the DCA Roadway Network Improvements and Associated Development, and Potomac River Generating Station Power Plant Redevelopment are situated within areas created by dredge and fill materials, or within areas that have been subjected to past disturbance. The area now consisting of Memorial Circle was at one time archeologically significant, but past construction actions have disturbed any intact archeological deposits that may have been present. As such, these projects have a low potential for the presence of, and hence to impact, archeological resources. However, the Parkway North Section Rehabilitation, recommended improvements described in the TRI CLI / EA, and the Long Bridge project, have the potential to impact archeological resources. The responsible agencies have been and will continue consulting with the DC HPO, VDHR, and consulting parties, as appropriate, to minimize and / or mitigate adverse effects in accordance with Section 106 of the National Historic Preservation Act, resulting in minimal adverse impacts to archeological resources.

The NPS intends to avoid adverse impacts to significant archeological resources from implementation of the proposed Parkway and Trail Improvements Plan and would minimize and / or mitigate any unavoidable impacts. Overall, the proposed Parkway and Trail improvements has the potential to add a small adverse incremental impact to the adverse impacts of other projects and actions, resulting in what would remain a relatively minor adverse cumulative impact to archeological resources. There would be no cumulative impacts to archeological resources under the no action alternative.

## CULTURAL LANDSCAPES

### Affected Environment

The NPS defines a cultural landscape as a geographic area, including both cultural and natural resources, associated with a historic event, activity, or persons exhibiting other cultural or aesthetic values. Cultural landscapes that have been previously identified and inventoried by the NPS within the APE include (from north to south):

- George Washington Memorial Parkway

- Theodore Roosevelt Island
- Memorial Avenue Corridor
- Lady Bird Johnson Park
- Lyndon Baines Johnson Memorial Grove on the Potomac
- Jones Point Park (CLI under development for the Jones Point Lighthouse)
- Mount Vernon Memorial Highway
- Fort Hunt Park

Descriptions of the general boundaries, background, and significance of each cultural landscape are provided in the following sections.

### George Washington Memorial Parkway

The Parkway is a scenic, landscaped roadway that encompasses approximately 7,146 acres and extends along 38.3 miles adjacent to the Potomac River in Arlington and Fairfax Counties, Virginia, Washington, DC, and Montgomery County, Maryland. The initial southern section of the Parkway, the Mount Vernon Memorial Highway, which opened in 1932, extends 15.2 miles from the Arlington Memorial Bridge located in Lady Bird Johnson Park (originally known as Columbia Island) to George Washington's home at Mount Vernon. The northern section of the Parkway was completed by 1965 and runs on opposite sides of the Potomac River from Arlington Memorial Bridge to the Capital Beltway / Interstate 495, 9.7 miles in Virginia, and the 6.6-mile Clara Barton Parkway (renamed—1989) in Maryland (Donaldson 2009). The Parkway commemorates the first president and Clara Barton, preserves the natural setting, protects scenic vistas, contains numerous historical and archeological resources, and provides a quality entryway into Washington, DC. The Parkway's **period of significance is from 1930 to 1966. It is significant for its historical and commemorative associations with George Washington and Clara Barton, for its thorough, well-designed landscape architecture, and because of its association with a long and continuous planning effort for the Washington, DC, region.** Elements that contribute to the significance of the George Washington Memorial Parkway Cultural Landscape include numerous bridges, culverts, walls, and miscellaneous structures as well as the design of the landscape, including its scenic and aesthetic qualities (NPS 1995a).

### Theodore Roosevelt Island

TRI is significant primarily as a national memorial to Theodore Roosevelt and his devotion to the **conservation of America's natural resources. However, the island has a long history; its topography and geology influencing settlement patterns and the development of the landscape.** In 1931, it was purchased by the Theodore Roosevelt Memorial Association, to be given to the American public and made into a memorial to honor the 26<sup>th</sup> president. Authorized by Congress in 1932, funds for the construction of a permanent memorial were approved in 1960. Landscape architect Frederick Law Olmsted, Jr. is primarily **responsible for the designed landscape, which primarily consists of a "native 'climax' forest."** The Theodore Roosevelt Memorial, located in the northern portion of the island, was designed by architect Eric Gugler, sculptor Paul Manship, and NPS landscape architect Lee Skillman (Johnson, Mirmiran & Thompson, Inc. 2018). The island has four periods of significance including the Native America period (to 1717), the Mason Family ownership and settlement (1748 to 1833), Civil War Occupation (1861 to 1865), and the Presidential Memorial period (1931 to 1979).

During the Civil War Period, TRI, **then known as Mason's Island, played a significant role in the history of African Americans.** At the onset of the Civil War, African American refugees of slavery sought their freedom

in the District; due to these refugees neither being free nor enslaved, they were referred to as “contrabands”. Many of these refugees participated in constructing and enlarging defenses, as well as serving as camp cooks and laborers in the District and surrounding region, including on TRI. Following the Emancipation Proclamation, African American men were authorized to be recruited and organized for federal service. In 1863, the 1<sup>st</sup> Regiment United States Colored Troops was organized from the District’s African American population; TRI served as the regiment’s training grounds and residence. The volunteer’s location on the island was kept secret due to the large presence of Confederate sympathizers within the District. By the end of June 1863, 10 companies had been formed and stationed on TRI. Shortly thereafter, the 1<sup>st</sup> District of Columbia Colored Troops was the first African American regiment formally mustered into federal service as the 1<sup>st</sup> United States Colored Troops. Camp Greene was established on the island to station the regiment. During the war, the regiment participated in campaigns in Richmond, Petersburg, and North Carolina, as well as garrisoning the Defenses of Washington toward the end of the war (NPS 2022b). In 2005, TRI was designated as a Network of Freedom location for the role that Camp Greene and the contraband camps played in the Underground Railroad (NPS 2023d).

Elements that contribute to the significance of the TRI Cultural Landscape include several archeological sites, as well as topography, from all four periods of significance; circulation features and views and vistas from the three historic periods of significance; and natural systems and features, vegetation, spatial organization, land use, buildings and structures, constructed water features, and small-scale features from the Presidential Memorial period of significance (Johnson, Mirmiran & Thompson, Inc. 2018).

#### Memorial Avenue Corridor

The Memorial Avenue Corridor Cultural Landscape is a mile-long axial composition that includes Arlington Memorial Bridge, Memorial Circle, Memorial Avenue Bridge over the Boundary Channel, Memorial Avenue, and the entrance to Arlington National Cemetery at the Hemicycle. The corridor was almost entirely designed by the renowned architecture firm of McKim, Mead, and White to serve as both “a monumental entry to the federal city and a formal, processional route to Arlington National Cemetery.” Memorial Circle was the work of Gilmore D. Clarke, an early parkway designer. The corridor’s features are significant as “important elements in the neoclassical urban design of the National Capital as it evolved during the first third of the 20<sup>th</sup> century” (NPS 1980a). Its period of significance is from 1901 to 2000. Elements that contribute to the significance of the Memorial Avenue Corridor Cultural Landscape include buildings and structures, including Arlington Memorial Bridge; circulation features, including Memorial Circle; small-scale features; vegetation; and views and vistas (Earley J. and Guenther D. 2016).

#### Lady Bird Johnson Park

Lady Bird Johnson Park, originally known as Columbia Island, is a 157-acre island that was created between 1915 and 1930 to serve as the western terminus of the Arlington Memorial Bridge and as a symbolic entrance into the nation’s capital. The park is situated within Washington, DC, despite being on the west side of the Potomac River, and is administered by the Parkway. In the 1960s, as part of the Johnson Administration’s Beautification Program, landscape architect Edward D. Stone, Jr. designed a planting plan for the island. The park’s period of significance is 1915 through 1979, from the island’s original construction to the last known planting plan revision completed by Stone, Jr. This period includes construction of the island; construction of all its major features, including roads, bridges, and the two memorials; and the Beautification Program (1964 to 1968), including the plan’s conception and the initial implementation of the Stone planting plan (Earley J. and Fanning K. 2005).

### Lyndon Baines Johnson Memorial Grove on the Potomac

The Lyndon Baines Johnson Memorial Grove on the Potomac is a component landscape located in the southwestern portion of Lady Bird Johnson Park. In total, the cultural landscape comprises approximately 29 acres owned by NPS within Lady Bird Johnson Park in Washington, DC, and an additional two acres on the Pentagon Reservation in Virginia, which is owned by the US General Services Administration and managed by NPS under permit. The memorial was built in the 1970s to honor Lyndon Baines Johnson, the 36<sup>th</sup> president. The Memorial Grove is clearly delineated from the rest of the island and encompasses a secluded meadow area, white pine grove, an open plaza with a large stone monolith, and a parking lot adjacent to the Columbia Island Marina. The period of significance is from 1974 to 1977, beginning the year Lady Bird Johnson selected the site and extending to when the NPS completed construction of the entrance to the Pentagon. The memorial is significant as a Presidential Memorial and as an example of 20th Century Landscape architecture designed by M. Meade Palmer, Harold Vogel, and the architecture and engineering firm Mills and Petticord. Elements that contribute to the significance of the Lyndon Baines Johnson Memorial Grove on the Potomac Cultural Landscape include natural systems and features, spatial organization, land use activities, topography, vegetation, circulation features, buildings and structures, views and vistas, constructed water features, and small-scale features (Jones AR. 2022).

### Jones Point Park

Jones Point Park is located on the Potomac River, just south of Old Town Alexandria. It has been a critical piece of the City of Alexandria's history and was once one of the largest centers for shipping, manufacturing, and transportation in the nation, as well as promulgation of the slave trade. **The waterfront's workforce** included many Africans and their descendants, the vast majority of whom were enslaved. In the early 19<sup>th</sup> century, **Alexandria's waterfront was home to one of the largest domestic slave trading companies, which** trafficked enslaved African Americans from the mid-Atlantic to the South. Its lighthouse, built in 1856, is the last remaining riverine lighthouse in Virginia that served to guide ships down the Potomac River (NPS 2021; City of Alexandria 2023). Jones Point Park was also home to Battery Rodgers, which served in the defense of the District during the Civil War and garrisoned a company of soldiers from the United States Colored Troops. Jones Point Park contains the southernmost cornerstone of Washington, DC, which was set in the 1791 survey of the **original southern boundary of the nation's capital** by Benjamin Banneker, an accomplished writer and inventor as well as free African American. The park also includes amenities such as the Trail, a gravel trail with interpretive exhibits, community garden plots available upon request, two fishing piers, a canoe launch, and recreational spaces. The period of significance of the Jones Point Lighthouse is 1791 to 1926. It is significant for its contributions to commerce, community planning, and transportation, as well as its ignominious role in the domestic slave trade (NPS 1980b).

The NPS has initiated work on a CLI to survey and document all culturally and historically significant resources in the park that are associated with the Jones Point Lighthouse and to guide treatment and use of the cultural landscape.

### Mount Vernon Memorial Highway

The Mount Vernon Memorial Highway is the initial 15.2-mile southern section of the Parkway between Arlington Memorial Bridge and Mount Vernon. This cultural landscape is comprised of a linear park that includes a limited access, four-lane highway, divided by a central median, that provides unparalleled views of the Potomac River and nationally significant landmarks. It is the first comprehensively designed modern motorway constructed by the federal government and is among the first roadways that combined

transportation, recreation, and commemoration into one coherent design. Mount Vernon Memorial Highway is significant for its contributions to community planning and development, conservation, transportation, commemoration, and entertainment/recreation. It is also significant for its engineering design and landscape architecture. There are two component landscapes north and south of Alexandria under the Mount Vernon Memorial Highway parent landscape.

Mount Vernon Memorial Highway north of Alexandria is a 4.45-mile section of the Parkway that extends from the intersection of First and North Washington Streets in Alexandria, Virginia, to the Boundary Channel in Arlington, Virginia. The period of significance is from 1929 to 1972, ranging from the year in which construction began, to when the Mission 66 program completed alterations to recreational areas within the Parkway and the Trail was added. The cultural landscape consists of contributing landscape characteristics that include natural systems and features; spatial organization; land use; topography; vegetation; circulation features, including the highway alignment, the Trail, the Gravelly Point access road and parking area, and the Roaches Run parking area; buildings and structures, such as bridges, culverts, and overpasses; and views and vistas (Traucht M. et al. 2022).

Mount Vernon Memorial Highway south of Alexandria is an 8-mile section of the Parkway that extends from the north bank of Hunting Creek to the terminus at Mount Vernon. This section of the Parkway, constructed between 1929 and 1932, was designed to include several recreational areas, as well as to accommodate residential development. This includes parkland and picnic areas such as Belle Haven Park, Collingwood Picnic Area, and Riverside Park; and important natural features, including Dyke Marsh Wildlife Preserve. Its period of significance is 1928 to 1955, beginning with the date of the enabling legislation for the Parkway and includes the development of significant recreational and circulation facilities. This section of the Parkway has a distinct character from many later parkways, derivative of its commemorative, scenic, and recreational purposes as well as its relationship to adjacent residential communities. Elements that contribute to the significance of the cultural landscape include natural systems and features, including the Potomac River, Hunting Creek, mature woodlands, Dyke Marsh Wildlife Preserve, and Little Hunting Creek; spatial organization; land use; topography; vegetation; circulation features, including the Main Corridor Roadway and many of the intersections and access roads; buildings and structures, such as culverts, bridges, and overpasses; views and vistas; small-scale features; and archeological sites (Kelsch et al. 2021).

It should be noted that the Trail is considered compatible, but non-contributing to the significance of the cultural landscape south of Alexandria, while north of the city, the Trail is considered an element that contributes to the significance of the cultural landscape.

### Fort Hunt Park

Fort Hunt Park is a 190-acre recreational area administered by the Parkway and located 11.5 miles south of Washington, DC and 2.5 miles north of Mount Vernon. The period of historic significance for Fort Hunt Park begins in 1893, when land was first acquired by the federal government for use as a coastal defense fortification. The period extends to 1942, when Civilian Conservation Corps Camp NP-6 located at Fort Hunt was disbanded. The uses of Fort Hunt during the 1890s to 1942 contribute to an understanding of US history, collectively representing distinct changes in American military, economic, and social life. Elements that contribute to the significance of the cultural landscape include structures primarily associated with the defense fortification; circulation features, including the Fort Hunt Overpass Bridge; small-scale features; vegetation; and views and vistas (Fanning K. 2016). The re-occupation of Fort Hunt by the military



for use as an interrogation site for captured German and Japanese officers, as well as NPS visitor use developments during the 1960s, are representative of additional historic eras of use of Fort Hunt Park.

### Impact Assessment Methodology

This analysis focuses on the potential impacts of Plan implementation on cultural landscapes, which are geographic areas, including cultural and natural resources associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values. The impact analysis considers the potential changes to the landscape conditions, characteristics, and character-defining features of contributing elements of each cultural landscape's overall historic significance using information collected from Cultural Landscape Inventories and Reports or National Register Nomination Forms.

### Impacts of the No Action Alternative

The NPS would continue to maintain the Parkway South Section and Trail under the no action alternative. Management actions would include the minimum rehabilitation and repairs necessary to maintain operation of the roadway, trail infrastructure, and amenities. The concrete pavement of the Parkway South Section would continue to deteriorate, requiring frequent maintenance and spot repairs, and safety and drainage issues would continue to occur. FHWA would continue to conduct scheduled structural inspections of the roadway bridges to ensure they are safe for motorists. The NPS would conduct only minor structural repairs on the bridges under the no action alternative until comprehensive rehabilitation efforts are necessary that would occur under other future planning decisions. Along the Trail, deteriorating trail and bridge surfaces would require frequent maintenance and spot repairs, and the potential for user conflicts and crashes, as well as trail hazards, would continue to increase. The no action alternative may result in adverse impacts should routine maintenance and repairs fail to stop deterioration of the roadway, trail, and drainage infrastructure that degrades elements and features that contribute to the significance of cultural landscapes.

### Impacts of the Parkway South Section and Trail Improvements

#### George Washington Memorial Parkway

Proposed improvements to the Trail within the George Washington Memorial Parkway Cultural Landscape include trail widening, minor realignments, and bridge rehabilitation or replacement. Additionally, the proposed Trail improvements include physical modifications to the Parkway to widen the Trail beneath the Arlington Memorial Bridge. However, such changes would be minor and would be designed in accordance with the Secretary's Standards so as not to diminish the significance and integrity of the cultural landscape's circulation features.

Trail widening may require limited tree removal that would result in small-scale changes to existing vegetation. According to the *Cultural Landscape Inventory Mount Vernon Memorial Highway – North of Alexandria* (Traucht M. et al. 2022), the integrity of the existing landscape's vegetation is diminished. To ensure that the integrity of the vegetation is not further diminished, the NPS would conduct tree surveys as part of the detailed design process that would be used to identify opportunities to avoid and minimize tree removal. Special measures would be taken to avoid the removal of legacy trees, including memorial trees that were planted during the original construction of the Parkway, and trees that remain since the original construction. The NPS would also avoid removing trees greater than 18 inches in diameter to the extent feasible. Impacted trees and shrubs would be replaced on a one-to-one dbh ratio to the extent practicable.

Replanting would reflect the cultural landscape character of the Parkway and would not occur where it would obstruct significant scenic vistas.

Although there would be small-scale alterations to circulation features and vegetation, the significance and integrity of the cultural landscape would not be diminished. Physical, visual, and construction impacts would **not impact the landscape's natural features, spatial organization, land use, topography, buildings and structures, or views and vistas.** The proposed Trail improvements would therefore result in no adverse impacts to the George Washington Memorial Parkway Cultural Landscape.

#### Theodore Roosevelt Island

The proposed Trail improvements would have no direct physical impacts to TRI Cultural Landscape. Improvements in the vicinity of the cultural landscape, including trail widening, rehabilitation of Trail Bridge 30A and the Rosslyn Trail Bridge, and crosswalk improvements at the TRI parking lot, would result in a minimal visual intrusion but would not diminish the integrity viewsheds at the cultural landscape. Features such as circulation, topography, land use, and views and vistas would remain unchanged. The significance and integrity of the TRI Cultural Landscape would not be diminished; therefore, the proposed Trail improvements would have no adverse impact to the TRI Cultural Landscape.

#### Memorial Avenue Corridor

Proposed Trail improvements within the Memorial Avenue Corridor Cultural Landscape involve trail widening, including physical modifications to the Parkway to widen the Trail beneath the Arlington Memorial Bridge. However, such changes would be minor and would be designed in accordance with the **Secretary's Standards so as not to diminish the significance and integrity of the cultural landscape's** circulation features.

Trail widening may require limited tree removal that would result in small-scale changes to existing vegetation. The *Cultural Landscape Inventory Mount Vernon Memorial Highway – North of Alexandria* (Traucht M. et al. 2022) determined that the integrity of the existing landscape's **vegetation is diminished.** To ensure that the integrity of the vegetation is not further diminished, the NPS would conduct tree surveys as part of the detailed design process that would be used to identify opportunities to avoid and minimize tree removal. Special measures would be taken to avoid the removal of legacy trees, including memorial trees that were planted during the original construction of the Parkway, and trees that remain since the original construction. The NPS would also avoid removing trees greater than 18 inches in diameter to the extent feasible. Although there would be small-scale alterations to circulation features and vegetation, the significance and integrity of the cultural landscape would not be diminished. The proposed Trail improvements would therefore result in no adverse impacts to the Memorial Avenue Corridor Cultural Landscape.

#### Lady Bird Johnson Park

Proposed Trail improvements within the Lady Bird Johnson Park Cultural Landscape involve trail widening, including physical modifications to the Parkway to widen the Trail beneath the Arlington Memorial Bridge, and construction of a new trail spur from the Trail to Memorial Avenue. However, such changes would be **minor and would be designed in accordance with the Secretary's Standards so as not to diminish the significance and integrity of the cultural landscape's** circulation features.

Trail widening may require limited tree removal that would result in small-scale changes to existing vegetation. Massive cottonwood trees and native willows are still extant to the south of Memorial Circle.

These trees existed prior to the Beautification Program in the 1960s and earlier planting from the 1940s that included several oaks and maples. Pines became abundant on the island when they were planted as the single species in the Lyndon Baines Johnson Memorial Grove in 1976. Beds of daffodils and some narcissus as well as dogwood trees also define the landscape of Lady Bird Johnson Park. The integrity of the existing landscape's vegetation is complex and current management is governed by the Stone planting plan. Statements and descriptions in the *Cultural Landscape Inventory George Washington Memorial Parkway – Lady Bird Johnson Park* (Earley J. and Fanning K. 2005) indicate that vegetation within the cultural landscape retains moderate to high integrity.

To ensure that the integrity of the vegetation is not diminished, the NPS would conduct tree surveys as part of the detailed design process that would be used to identify opportunities to avoid and minimize tree removal. Special measures would be taken to avoid the removal of legacy trees, including memorial trees that were planted during the original construction of the Parkway, and trees that remain since the original construction. The NPS would also avoid removing trees greater than 18 inches in diameter to the extent feasible. Although there would be small-scale alterations to circulation features and vegetation, the significance and integrity of the cultural landscape would not be diminished. The proposed Trail improvements would therefore result in no adverse impacts to the Lady Bird Johnson Park Cultural Landscape.

#### Lyndon Baines Johnson Memorial Grove on the Potomac

The proposed Trail improvements would have no direct physical impacts to the Lyndon Baines Johnson Memorial Grove on the Potomac Cultural Landscape, which is located on the west side of the Parkway, opposite the Trail. Proposed trail widening is not anticipated to be visible from the cultural landscape. As such, there would be no effects to the landscape's topography, land use, spatial organization, vegetation, and views and vistas. The significance and integrity of the cultural landscape would not be diminished; therefore, the proposed Trail improvements would have no adverse impacts to the Lyndon Baines Johnson Memorial Grove on the Potomac Cultural Landscape.

#### Jones Point Park

The Trail improvements include trail widening and replacing Trail Bridge 25 within Jones Point Park. Although trail widening is anticipated to require tree removal, the proposed improvements would not be visible from culturally and historically significant resources in the park and would not diminish the significance and integrity of the Jones Point Park Cultural Landscape. As such, there would be no adverse impacts.

#### Mount Vernon Memorial Highway

The proposed improvements would result in numerous roadway and trail modifications within the Mount Vernon Memorial Highway Cultural Landscape between Arlington Memorial Bridge and Mount Vernon. Physical alterations would occur from roadway reconstruction; bridge rehabilitation; traffic calming, safety, and intersection modifications; trail widening and realignments; drainage improvements; and amenity upgrades. Similarly, the addition of small-scale features within the landscape, such as pedestrian crossings and new roundabouts at the 14th Street Bridge Trail and Four Mile Run Trail, would not impact the overall circulation and would be compatible with the original design intent and character of the Parkway.

Other small-scale features, including Trail bridges and Parkway culverts would be rehabilitated and replaced as needed. The replacement of existing guardrail or installation of guardrail in spot locations recommended

by FHWA would not be expected to affect scenic views and vistas within the cultural landscape. Such work **would be designed in adherence to the Secretary's Standards to use in-kind** replacement materials and retain the rustic and naturalistic aesthetic of the landscape. Other new amenities, including benches, bike racks, bike railings, water fountains, the new Gravelly Point restroom facility, removal of the vault toilets at Riverside Park, Capital Bikeshare Stations, and other small-scale amenities, would be sensitively placed and designed to be compatible with the aesthetic of the cultural landscape so as not to diminish its significance and integrity.

The proposed improvements also include rehabilitation of the Little Hunting Creek Bridge, Fort Hunt Overpass Bridge, Alexandria Avenue Overpass Bridge, and Hunting Creek Bridge based on future FHWA inspections. The NPS would ensure that improvements are sensitive to the design characteristics of the bridges and would adhere to the Secretary's Standards. **For example, efforts would be made to retain, repair,** or replace in-kind the character-defining features of the bridges, which includes the rusticated facing stone and brick-faced features. The NPS anticipates that bridge rehabilitation would not adversely impact the structures and would not diminish the significance and integrity of the cultural landscape.

**The existing landscape's integrity of vegetation** has been diminished from the loss of memorial groves and many of the original flowering and ornamental vegetation. Invasive plantings have also led to reduced integrity. Proposed trail widening, establishing clear zones, and possibly drainage improvements and stormwater management, would require selective tree removal and trimming that would be kept to the minimum necessary for safety and widening the Trail. To ensure that the integrity of the vegetation is not further diminished, the NPS would conduct tree surveys as part of the detailed design process that would be used to identify opportunities to avoid and minimize tree removal. Special measures would be taken to avoid the removal of legacy trees, including memorial trees that were planted during the original construction of the Parkway, and trees that remain since the original construction. The NPS would also avoid removing trees greater than 18 inches in diameter to the extent feasible. Although there would be small-scale alterations to vegetation, the significance and integrity of the cultural landscape would not be further diminished.

Finally, the cultural landscape contains two archeological sites potentially eligible for listing in the National Register, and there is approximately 9.5 miles of Parkway South Section and Trail that have the potential for the presence of archeological resources. **The NPS intends to avoid adverse impacts to significant archeological resources as much as is feasible, as unavoidable impacts to significant archeological resources** may result in an associated impact to the integrity of this aspect of the Mount Vernon Memorial Highway Cultural Landscape. The NPS is pursuing the negotiation and execution of a programmatic agreement in accordance with 36 CFR 800.6(c) with NCPC, the DC HPO, and VDHR. The draft programmatic agreement is included in Appendix D. The agreement defines the continued Section 106 consultation process for the identification and evaluation of resources, and the resolution of any adverse effects on National Register-eligible historic properties associated with the Parkway South Section and Trail Improvements Plan. The NPS would work with the DC HPO, VDHR, and the consulting parties, to identify strategies to avoid, minimize, and mitigate the adverse effects that may result to archeological resources after additional survey and subsurface investigations are conducted during design phases of Plan implementation.

Due to the minor alterations and additions **to the landscape's** circulation, small-scale features, structures, and vegetation, there may be changes to views and vistas throughout the cultural landscape. However, such changes would be minor and would be compatible with the existing landscape. The NPS would ensure that the proposed improvements would adhere **to the Secretary's Standards and would retain the existing**

characteristics of the resources that contribute to the significance of the Parkway so as not to diminish the significance and integrity of the Mount Vernon Memorial Highway Cultural Landscape.

### Fort Hunt Park

Proposed improvements within the Fort Hunt Park Cultural Landscape include the addition of trail warning signage and pavement markings on the Trail at pinch point under the Fort Hunt Road Overpass Bridge. The proposed improvements would also include the placement of a Capital Bikeshare Station at the far eastern edge of the property. This change would be reversible and would have a minor visual effect, not diminishing the integrity of the property. Additionally, a portion of the property may be used for temporary construction staging. However, the NPS would identify a location to stage vehicles, equipment, and construction materials at Fort Hunt Park that would be visually unobtrusive. Physical, visual, and construction impacts would not impact the cultural landscape's **circulation features, spatial organization, land use, topography, vegetation, buildings and structures, or views and vistas**. The proposed Parkway and Trail improvements would not diminish the significance and integrity of the Fort Hunt Park Cultural Landscape and would therefore not result in adverse impacts. Improvements to Fort Hunt Park are occurring under a separate NPS action as part of the Fort Hunt Park Site Development Plan EA (2015).

### Cumulative Impacts

Current and future projects reviewed for the cumulative impact analysis, including the Parkway North Section Rehabilitation, the improvements recommended in the TRI CLI/EA, the Memorial Circle Safety Improvements, the Long Bridge project, CC2DCA Intermodal Connector Project, the DCA Roadway Network Improvements and Associated Development, and the Potomac River Generating Station Power Plant Redevelopment would not diminish the significance and integrity of cultural landscapes. However, the Parkway North Section Rehabilitation, recommended improvements described in the TRI CLI / EA, and the Long Bridge project, have the potential to impact archeological resources that contribute to the significance of cultural landscapes. **The proposed Parkway South Section and Trail Improvements may also have potential impacts to archeological resources within the Mount Vernon Memorial Highway Cultural Landscape, impacting its integrity.** The NPS intends to avoid adverse impacts to significant archeological resources and would minimize and / or mitigate any unavoidable impacts. Overall, the proposed Parkway and Trail improvements have the potential to add a small adverse incremental impact to the adverse impacts of other projects and actions, resulting in what would remain a relatively minor adverse cumulative impact to archeological resources within the cultural landscape. There may be an adverse cumulative impact under the no action alternative if deterioration of the roadway, trail, and drainage infrastructure diminish the significance and integrity of the Mount Vernon Memorial Highway Cultural Landscape.

## CONSULTATION AND COORDINATION

The NPS provided an opportunity for the public to comment on the proposed action during the NEPA process. The NPS also conducted consultation and coordination activities with federal, District, and Virginia agencies, American Indian tribes, and other interested parties. This section provides a summary of the public involvement and agency consultation and coordination that occurred during project planning to inform the project and the EA.

### PUBLIC INVOLVEMENT

The NPS involved the public in project planning by conducting public scoping from December 6, 2022 to January 18, 2023. The NPS announced the public scoping period on November 22, 2022, by sending an electronic notice through the GovDelivery web-based email subscription management system used by the National Capital Area. The NPS sent the notice to 735 email addresses that included elected officials, agency and tribal representatives, stakeholders, and other potentially interested individuals. The notice included a link to a public scoping notification letter from the Superintendent that was also posted on the PEPC project webpage at [Park Planning GWMP South \(nps.gov\)](https://www.nps.gov/park-planning-gwmp-south), along with the Parkway Traffic and Safety Context Sensitive Solutions Assessment, Trail Corridor Study, and the National Register nomination documentation for the Parkway. **The NPS also distributed a press release and posted in the “News Releases” section of the official Parkway website: [News - George Washington Memorial Parkway \(US National Park Service\) \(nps.gov\)](https://www.nps.gov/news-george-washington-memorial-parkway).**

The NPS received a total of 700 separate correspondence submitted electronically through PEPC, by mail, or by email. The NPS used public, agency, and stakeholder feedback to develop this Plan, including making refinements to the proposed action and identifying environmental issues and concerns of park visitors and neighbors.

#### Virtual Public Scoping Meeting

The public scoping announcements sent by NPS included an invitation to attend a virtual public scoping meeting held from 7:00 p.m. to 8:30 p.m. on December 6, 2022, to provide an opportunity for interested members of the public to learn more about the Plan. The NPS held the meeting using GoToWebinar. The NPS provided the opportunity for participants to join via computer or mobile device, which included both video and audio capabilities, or participants could attend using a toll-free phone number, which provided audio-only capabilities. The presentation lasted approximately 35 minutes, allowing more than an hour for questions and answers. A total of 143 individuals attended the meeting, which the NPS recorded and posted to the PEPC project page following the meeting.

#### Stakeholder Meeting

The NPS also held a stakeholder meeting from 8:00 a.m. to 9:00 a.m. on December 2, 2022, in advance of the public scoping meeting. The NPS invited a focused group of 34 local elected officials, agency representatives, **partners, and friends’ groups**. **The purpose of this advance meeting was to provide an opportunity for the stakeholders to learn about the Plan and to ask questions, but also to gather their support and help NPS to promote the Plan and public scoping process through social media or other outreach platforms.** The stakeholders also helped NPS to refine the presentation ultimately used for the public scoping period.



## AGENCY CONSULTATION AND COORDINATION

### Section 106 of the National Historic Preservation Act

Pursuant to Section 106 of the National Historic Preservation Act and its implementing regulations (36 CFR Part 800), NPS initiated consultation with the DC HPO and VDHR in letters dated November 4, 2022. The letters described the proposed improvements, defined a draft APE, and identified known historic properties within the APE. VDHR acknowledged receipt of the initiation letter on December 7, 2022, and had several questions regarding the draft APE. The NPS provided responses to VDHR's comments in a letter dated January 13, 2023. The DC HPO responded in an email on December 9, 2022, acknowledging the initiation and showing interest in learning more about the project.

The NPS also sent consultation initiation letters concurrently to the Pamunkey Indian Tribe, Upper Mattaponi Indian Tribe, Rappahannock Tribe, Nansemond Indian Nation, Chickahominy Indian Tribe, Chickahominy Tribe Eastern Division, Monacan Indian Nation, Catawba Indian Nation, Delaware Nation, Absentee Shawnee Tribe of Indians of Oklahoma, and Shawnee Tribe. The NPS received a response from the Delaware Nation on November 21, 2022, accepting the invitation for consultation on the project. The Monacan Indian Nation responded in an email dated August 7, 2023, that they did not wish to participate in consultation because impacts are anticipated to be minimal. In an email sent on August 30, 2023, the Shawnee Tribe declined to participate in consultation because the project falls outside of their area of interest.

Section 106 consultation correspondence can be found in Appendix A.

After initiating consultation, the NPS assessed the potential effects that Plan implementation would have to cultural resources in an Assessment of Effects Report that was submitted to consulting parties in advance of a **Section 106 consulting parties' meeting** that was held virtually on August 9, 2023. The Assessment of Effects Report was made available for public comment at the NPS PEPC website until September 1, 2023.

Section 106 consultation is ongoing at the time of this EA. The NPS, NCPC, and VDHR are currently in the process of developing a programmatic agreement document that defines the continued consultation process for the identification and evaluation of resources, and the resolution of any adverse effects on historic properties, including archeological resources, associated with Plan implementation. The draft programmatic agreement is included in Appendix D. The DC HPO has declined to participate in the programmatic agreement.

### Section 7 of the Endangered Species Act

The NPS obtained an official list of terrestrial and freshwater species and critical habitat from the USFWS on June 7, 2023, that identified the federally listed endangered northern long-eared bat (*Myotis septentrionalis*) and the federally proposed endangered tricolored bat (*Perimyotis subflavus*) as potentially occurring within the Plan implementation area. The NPS ran through the northern long-eared bat determination key, which resulted in a *May Affect* determination. However, because several conservation measures would be implemented, including a time of year restriction on the removal of trees 3-inches dbh or greater, the NPS requested concurrence of a *May Affect, Not Likely To Adversely Affect* determination for the northern long-eared bat in a consultation package sent to USFWS on August 29, 2023. The conservation measures proposed by NPS would also be effective to minimize effects to the tricolored bat. The consultation package submitted to USFWS is provided in Appendix A. Section 7 consultation is ongoing as of this EA.

List of Agencies and Stakeholders

Table 11 below provides a list of many of the agencies, American Indian tribes, elected officials, and other stakeholders that NPS contacted for input or that provided feedback during public scoping. Table 11 does not provide a comprehensive list of the agencies and stakeholders included in the electronic notice sent by NPS through the GovDelivery email subscription management system used by the National Capital Area.

Table 11. List of Agencies, Tribes, and Other Stakeholders

Agencies, Tribes, and Other Stakeholders		
Absentee Shawnee Tribe of Indians of Oklahoma	Energy for Development	Office of Dan Storck, Mount Vernon Supervisor
Alexandria Families for Safe Streets	Fairfax Alliance for Better Bicycling	Oxon Hill Bicycle and Trail Club
American Public Gas Association	Fairfax County Department of Planning and Development	Pamunkey Indian Tribe
Arlington Bicycle Advisory Committee	Fairfax County Department of Transportation	People Before Cars Coalition
Arlington County Department of Environmental Services	Fairfax County Park Authority	Phoenix Bikes
Arlington County Department of Parks and Recreation	Fairfax County Trails, Sidewalks and Bikeway Committee	Porto Vecchio Condominium Unit Owners Association
Audubon Society of Northern Virginia	Friends of Dyke Marsh	Potomac Chapter of the Appalachian Mountain Club
Belle View Condominium	Friends of the Mount Vernon Trail	Rappahannock Tribe
Capital Trails Coalition	George Washington's Mount Vernon Ladies Association	Shawnee Tribe
Capitol Hill Village	LHC, LLC	St. Aidan's Episcopal Church
Catawba Indian Nation	Mastercard	Stratford Landing Citizens Association
Chesapeake Paddlers Association, Inc.	McLean High School	Suntos Technologies
Chickahominy Indian Tribe	Monacan Indian Nation	Sustainable Mobility for Arlington County
Chickahominy Tribe Eastern Division	Mount Vernon Civic Association, Transportation Chairperson	Tauxemont Community Association
City of Alexandria Department of Planning and Zoning	Mount Vernon Council of Citizens Association	The Dean Family Law Firm
City of Alexandria Transportation and Environmental Services	Mount Vernon Council of Citizens Association - Transportation Committee	University of the District of Columbia
Commission of Fine Arts	Nansemond Indian Nation	Upper Mattaponi Indian Tribe
Congressman Don Beyer	National Capital Planning Commission	Virginia Department of Conservation and Recreation
DC Cycling Concierge	New Alexandria Citizens Association	Virginia Department of Historic Resources
Delaware Nation	Northern Virginia Casual Bicycling Group	Virginia Department of Transportation
District Department of Transportation	Northern Virginia Regional Commission	Wakfield Tarleton Civic Association
District of Columbia Historic Preservation Office		Washington Area Bicyclist Association
East Coast Greenway Alliance		Wellington Civic Association

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## REFERENCES

Centers for Disease Control and Prevention (CDC) / Agency for Toxic Substances and Disease Registry (ATSDR)

- 2022 CDC/ATSDR Social Vulnerability Index (SVI). Available at: [CDC/ATSDR Social Vulnerability Index \(SVI\) | Place and Health | ATSDR](#).

City of Alexandria

- 2023 African American Heritage Trail – North Waterfront Route. Available at: [African American Heritage Trail - North Waterfront Route | City of Alexandria, VA \(alexandriava.gov\)](#).

Council on Environmental Quality (CEQ)

- 2022 Climate and Economic Justice Screening Tool (CEJST). Available at: [Explore the map - Climate & Economic Justice Screening Tool \(geoplatform.gov\)](#).

Donaldson, E.

- 2009 George Washington Memorial Parkway - North: Cultural Landscape Inventory, George Washington Memorial Parkway, National Park Service. Cultural Landscapes Inventory Report. 600170. NPS National Capital Regional Office. National Capital Regional Office/CLI Database.

Earley, J. and K. Fanning

- 2005 Lady Bird Johnson Park: Cultural Landscape Inventory, George Washington Memorial Parkway - Lady Bird Johnson Park, National Park Service. Cultural Landscapes Inventory Report. 600245. NPS National Capital Regional Office. National Capital Regional Office/CLI Database.

Earley, J. and D. Guenther

- 2016 Memorial Avenue Corridor: Cultural Landscape Inventory, George Washington Memorial Parkway, National Park Service. Cultural Landscapes Inventory Report. 600247. NPS National Capital Regional Office. National Capital Regional Office/CLI Database.

EDAW, Inc.

- 1992 Cultural Landscape Report for the Mount Vernon Memorial Highway – Volume One: History and Volume Two: Documentation. National Park Service. Washington. DC.

Fanning, K.

- 2016 Fort Hunt Park: Cultural Landscape Inventory, George Washington Memorial Parkway - Fort Hunt Park, National Park Service. Cultural Landscapes Inventory Report. 600177. NPS National Capital Regional Office. National Capital Regional Office/CLI Database.

Foster, R. and A. Kurta

- 1999 Roosting Ecology of the Northern Bat (*Myotis septentrionalis*) and Comparisons with the Endangered Indiana Bat (*Myotis sodalists*).

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Federal Highway Administration (FHWA)

- 2000 ROUNDABOUTS: An Informational Guide. Publication No. FHWA-RD-00-067.
- 2001 Designing Sidewalks and Trails for Access Part II of II: Best Practices Design Guide. Available at: [Sidewalk2 - Publications - Bicycle and Pedestrian Program - Environment - FHWA \(dot.gov\)](#).
- 2014 Road Diet Informational Guide. Available at: [Road Diet Informational Guide - Safety | Federal Highway Administration \(dot.gov\)](#).
- 2017 Corridor Access Management. Available at: [Corridor Access Management - Safety | Federal Highway Administration \(dot.gov\)](#).
- 2020 Crash Modification Factors Clearinghouse. Available at: [CMF Clearinghouse](#).
- 2021 George Washington Memorial Parkway: Traffic and Safety Context Sensitive Solutions Assessment.

Friends of Mount Vernon Trail

- 2023 Friends of Mount Vernon Trail. Available at: [Friends of the Mount Vernon Trail | Improving the Mount Vernon Trail for all users](#).

Johnson, Mirmiran & Thompson, Inc.

- 2018 Cultural Landscape Report and Environmental Assessment for Theodore Roosevelt Island, George Washington Memorial Parkway. Cultural Landscape Report. US Department of the Interior. Washington, DC.

Jones, A.R.

- 2022 Lyndon Baines Johnson Memorial Grove on the Potomac: Cultural Landscapes Inventory, George Washington Memorial Parkway. Cultural Landscapes Inventory Report. 600246. US Department of the Interior, National Park Service. National Capital Regional Office, Washington, DC / CRIS-CL Database.

Kelsch P. et al.

- 2021 Mount Vernon Memorial Highway- South of Alexandria: Cultural Landscape Inventory, George Washington Memorial Parkway, National Park Service. Cultural Landscapes Inventory reports. 975888. NPS National Capital Regional Office. National Capital Regional Office/CLI Database.

Lacki, M., and J. Schwierjohann

- 2001 Day-Roost Characteristics of Northern Bats in Mixed Mesophytic Forest

Leach, Sara Amy

- 1990 National Register of Historic Properties Multiple Property Documentation Form for Parkways of the National Capital Region, 1913 to 1965.

Mackintosh, Barry

- 1996 George Washington Memorial Parkway Administrative History. NPS Park History Program, Washington, DC.

---

## National Capital Region

- 2018 Geospatial data for the Vegetation Mapping Inventory Project of George Washington Memorial Parkway. Available at: [DataStore - Geospatial data for the Vegetation Mapping Inventory Project of George Washington Memorial Parkway \(nps.gov\)](#).

## National Park Service (NPS)

- 1980a Arlington Memorial Bridge. National Register of Historic Places – Nomination Form.
- 1980b Jones Point Lighthouse and District of Columbia South Cornerstone. National Register of Historic Places – Nomination Form.
- 1981 Mount Vernon Memorial Highway. National Register of Historic Places – Nomination Form.
- 1995a George Washington Memorial Parkway. National Register of Historic Places – Nomination Form.
- 1995b **The Secretary of the Interior’s Standards for the Treatment of Historic Properties.** Available at: [Technical Preservation Services \(US National Park Service\) \(nps.gov\)](#).
- 2005 George Washington Memorial Parkway Long Range Interpretive Plan. Prepared by the Department of Interpretive Planning, Harper Ferry Center and George Washington Memorial Parkway. Virginia/Maryland. November 2005.
- 2014 **Foundation Document George Washington Memorial Parkway. GWMP 850/126812. December 2014.**
- 2015 NEPA Handbook. Available at: [NEPA Handbook \(nps.gov\)](#).
- 2021 Jones Point Park. Available at: [Jones Point Park - George Washington Memorial Parkway \(US National Park Service\) \(nps.gov\)](#).
- 2022a National Park Service Visitor Use Statistics. Available at: [STATS - Park Reports \(nps.gov\)](#).
- 2022b African Americans and the Defenses of Washington. Available at: [African Americans and the Defenses of Washington - Civil War Defenses of Washington \(US National Park Service\) \(nps.gov\)](#).
- 2023a George Washington Memorial Parkway. Available at: [George Washington Memorial Parkway \(US National Park Service\) \(nps.gov\)](#).
- 2023b Mount Vernon Trail. Available at: [Mount Vernon Trail - George Washington Memorial Parkway \(US National Park Service\) \(nps.gov\)](#).
- 2023c Nature & Science. Available at: [Nature - George Washington Memorial Parkway \(US National Park Service\) \(nps.gov\)](#).
- 2023d National Underground Railroad Network to Freedom. Available at: [Network to Freedom \(US National Park Service\) \(nps.gov\)](#).

## New South Associates, Inc.

- 2023 Phase IA Archaeological Overview for the Proposed Rehabilitation of the George Washington Memorial Parkway (South Section) and Mount Vernon Trail. Draft dated May 9, 2023.



Pedestrian and Bicycle Information Center

- 2018 PBIC Crash Types Series. Multiple Threat Crash Webinar Presentation. Available at: [Webinar\\_PBIC\\_080918.pdf \(pedbikeinfo.org\)](#).

Peek, K. et al.

- 2017 George Washington Memorial Parkway & Theodore Roosevelt Island Coastal Hazards & Climate Change Asset Vulnerability Assessment. NPS 800/154053. National Park Service, Washington DC.

Steury, B.W.

- 2011 Additions to the Vascular Flora of the George Washington Memorial Parkway, Virginia, Maryland, and the District of Columbia. *Banisteria* 37 (1): 35-52.

Traucht, M. et al.

- 2022 Mount Vernon Memorial Highway – North of Alexandria: Cultural Landscapes Inventory, George Washington Memorial Parkway. Cultural Landscapes Inventory Report. 976126. US Department of the Interior, National Park Service. National Capital Regional Office, Washington, DC / CRIS-CL Database.

United States Environmental Protection Agency (USEPA)

- 2023 Environmental Justice Screening and Mapping Tool (EJ Screen). Available at: [EJScreen: Environmental Justice Screening and Mapping Tool | US EPA](#).

United States Fish and Wildlife Services (USFWS)

- 2023 Tricolored Bat (*Perimyotis subflavus*). Available at: [Tricolored Bat \(Perimyotis subflavus\) | US Fish & Wildlife Service \(fws.gov\)](#).

United States Department of Transportation Volpe Center (Volpe Center)

- 2020 Mount Vernon Trail Corridor Study. George Washington Memorial Parkway.
- 2023 George Washington Memorial Parkway – Southern Section Road Diet Traffic Operation Impact Analysis.

Walsh et al.

- 2016 Natural resource condition assessment for George Washington Memorial Parkway: National Capital Region. Natural Resource Report. NPS/GWMP/NRR—2016/1121. National Park Service. Fort Collins, Colorado.

# George Washington Memorial Parkway South Section and Mount Vernon Trail Improvements Plan

## Environmental Assessment

### Appendix A. Agency Correspondence

#### **DISCLAIMER**

#### **Section 508 Compliance and Appendices**

At present, the accessibility of appendix materials in compliance with Section 508 of the Rehabilitation Act is quite limited. If you use assistive technology and the format of these pages prevents you from obtaining necessary data, please contact the Office of the Superintendent at [gwmp\\_superintendent@nps.gov](mailto:gwmp_superintendent@nps.gov). Contact the administrator of this website at [pepc\\_helpdesk@nps.gov](mailto:pepc_helpdesk@nps.gov) for other technical assistance.



IN REPLY REFER TO:  
NCPC FILE No. 8424

December 16, 2022

Superintendent Cuvelier  
GWMP South and MVT Plan / EA  
700 George Washington Memorial Parkway  
McLean, Virginia 22101

Re: George Washington Memorial Parkway South Section and Mount Vernon Trail  
Improvement Plan / Environmental Assessment Scoping Comments

Dear Superintendent Cuvelier:

The staff of the National Capital Planning Commission (NCPC) appreciate the opportunity to provide scoping comments for the National Park Service (NPS) study to improve the southern portion of the George Washington Memorial Parkway (GWMP) and the Mount Vernon Trail (MVT). Future improvements, which have yet to be identified, would address deferred maintenance needs and safety issues along 15.2 miles of the Parkway extending from Arlington Memorial Bridge to Mount Vernon in Virginia. The project also includes a majority of the Mount Vernon Trail in Arlington, Virginia, but would not include Parkway and Trail sections within the City of Alexandria. The future improvements are ultimately intended to preserve the historic Parkway, improve the visitor experience, reduce annual park operations and maintenance costs, and improve visitor safety.

NCPC has review responsibilities over all projects located on federal land within the National Capital Region pursuant to the National Capital Planning Act. We note that a portion of the project area is located within the District of Columbia (Columbia Island). As such, NCPC will have approval authority and responsibilities pursuant to the National Environmental Policy Act (NEPA) and Section 106 of the National Environmental Policy Act (NEPA). Therefore, we request participation as a Cooperating Agency under NEPA and Consulting Party status under Section 106 so that our Commission can rely on the future Environmental Assessment (EA) and Programmatic Agreement during its project review process. For federal property located within Virginia, NCPC would have advisory review authority.

*Comprehensive Plan for the National Capital*

The project purpose is generally consistent with a number of policies set forth in the Transportation, Parks & Open Space, and Visitors & Commemoration Elements of the *Comprehensive Plan for the National Capital*, including those related to improving public access to federal facilities, supporting multi-modal connectivity, and benefiting the visitor experience. We also recognize the project's benefit to enhancing pedestrian, bicycle, and transit access to a

Superintendent Cuvelier  
Page Two

number of nearby federal properties including Arlington National Cemetery, the Pentagon Reservation, Theodore Roosevelt Island, Dangerfield Island, and Mount Vernon.

#### *Environmental Assessment Impact Topics*

Regarding the EA, we recommend the same impact topics found in the related *2018 George Washington Memorial Parkway North Section Rehabilitation Environmental Assessment* for consistency. This includes topics such as transportation, cultural landscapes, and visual and aesthetic resources, among others. In addition, we urge the NPS to collect and consider the following information through the study to help facilitate future plan review actions by NCPC:

- Total impervious surface area changes;
- Stormwater runoff volumes;
- 100 and 500-year floodplain impacts; and
- Vegetation, tree canopy area, and number of on-site trees.

#### *Design Considerations*

Based on our Comprehensive Plan guidance, we offer the following early design recommendations for consideration as NPS identifies potential future planning and design solutions, and starts to develop more detailed plans and alternatives:

- Avoid potential tree impacts where possible. Replant trees and other plant materials to improve habitat.
- Use permeable surface treatments and bio-retention areas to minimize stormwater runoff.
- Minimize light pollution and use lighting only where necessary for safety. Pay careful attention to light direction and color, retrofit existing lighting when possible, and use energy efficient fixtures.
- Use simple signage that is consistent with the existing signage palette used along the Mount Vernon Trail and GWMP.

#### *Coordination*

There are several on-going projects and studies along the corridor. These include the Long Bridge widening project and CC2DCA Multimodal Connection Study. The future Long Bridge project includes a new pedestrian/bicycle bridge over the Potomac River (between East Potomac Park and Long Bridge Park), which would provide one or two new direct connections to the Mount Vernon Trail. The CC2DCA would provide a connection between Crystal City/National Landing and Ronald Reagan Washington National Airport (DCA). We also note the Metropolitan Washington Airports Authority (MWAA) is considering several projects at DCA that may impact the GWMP and MVT. The GW Parkway South / Mount Vernon Trail Improvement Plan EA should consider how these projects may relate to any proposed improvements.

Superintendent Cuvelier  
Page Three

*Memorials & Museums Master Plan*

Finally, we note the NCPC *Memorials and Museums Master Plan* (2M Plan) identifies several potential memorial sites within the study area, which should be considered when developing rehabilitative/safety measures so as not to diminish their long-term potential as commemorative sites. In particular, Site 1 includes the area near the intersection of Memorial Avenue and the GWMP. Site 28 is situated to the south of DCA as an open space area adjacent to the GWMP. Please refer to the 2M Plan (pages 34 and 94), which provides additional information about each location. Although no memorials are currently contemplated for either site at this time, we recommend that future plans for the Parkway and Trail do not preclude opportunities for potential commemorative elements or public art.

*Project Review Process*

NPS should anticipate two separate project submissions (preliminary and final) to the Commission when plans are at an adequate level of detail. In addition, prior to our preliminary review, during the NEPA study process, we may also suggest an initial concept review to allow our Commission to comment on the different components and/or comment on potential EA action alternatives. We will consult with NPS staff to determine the best approach. Please consult our agency website at [www.ncpc.gov/review/guidelines](http://www.ncpc.gov/review/guidelines) for more information about our submission guidelines and review process.

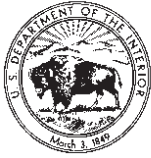
We appreciate the opportunity to provide these staff comments and look forward to participating in the EA process and future project submissions. If you have any questions, please contact Michael Weil at [michael.weil@ncpc.gov](mailto:michael.weil@ncpc.gov).

Sincerely,

*Diane Sullivan*

Diane Sullivan, Director  
Urban Design and Plan Review Division

cc: Tammy Stidham, National Park Service



## United States Department of the Interior

NATIONAL PARK SERVICE  
George Washington Memorial Parkway  
McLean, Virginia 22101

March 6, 2023

Ms. Diane Sullivan, Director  
Urban Design and Plan Review Division  
National Capital Planning Commission  
401 9th Street, NW, Suite 500N  
Washington, DC 20004

**REF:** George Washington Memorial Parkway South Section and Mount Vernon Trail  
Improvements Plan / Environmental Assessment


Dear Ms. Sullivan,

The National Park Service (NPS) has received your letter, dated December 16, 2022, which you sent during the public scoping period for the George Washington Memorial Parkway South Section and Mount Vernon Trail Improvements Plan / Environmental Assessment (EA).

This letter is to inform you that we accept your request to participate as a Cooperating Agency in the National Environmental Policy Act (NEPA) process, and as a Consulting Party under Section 106 of the National Historic Preservation Act (NHPA), so the Commission can rely on the EA and Section 106 Programmatic Agreement during its project review process. We will include the Commission in the EA document review process and in all Section 106-related consultations and meetings.

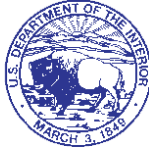
We look forward to your involvement and know that this partnership will ensure successful project planning and implementation. If you have any questions, please send an email to [gwmp\\_superintendent@nps.gov](mailto:gwmp_superintendent@nps.gov).

Sincerely,

Charles  Cuvelier  
Date: 2023.03.07 13:42:45 -05'00'

Charles Cuvelier  
Superintendent





## United States Department of the Interior

George Washington Memorial Parkway  
NATIONAL PARK SERVICE  
National Capital Region  
700 George Washington Memorial Parkway  
McLean, VA 22101

IN REPLY REFER TO:

November 4, 2022

Julie Langan  
State Historic Preservation Officer  
Attn: Roger Kirchen and Jonathan Connolly  
Virginia Department of Historic Resources  
2801 Kensington Avenue  
Richmond, Virginia 23221  
*Sent by email to [julie.langan@dhr.virginia.gov](mailto:julie.langan@dhr.virginia.gov), [roger.kirchen@dhr.virginia.gov](mailto:roger.kirchen@dhr.virginia.gov),  
[Jonathan.connolly@dhr.virginia.gov](mailto:Jonathan.connolly@dhr.virginia.gov)*

Re: Initiation of Section 106 Consultation, George Washington Memorial Parkway South Section and Mount Vernon Trail Improvement Plan / Environmental Assessment

Dear Ms. Langan:

The National Park Service (NPS) is preparing a plan and corresponding Environmental Assessment (EA) to address deferred maintenance needs and safety along the southern portion of the George Washington Memorial Parkway (GW Parkway) and the entirety of the Mount Vernon Trail (MVT). The NPS wishes to formally initiate consultation with the Virginia Department of Historic Resources (DHR), serving as the Virginia State Historic Preservation Office (SHPO), in compliance with Section 106 of the National Historic Preservation Act (NHPA) (54 U.S.C. § 306108) and its implementing regulations (36 CFR § 800).

### Description of the Undertaking

The plan would address deferred maintenance and improve safety on the south section of the GW Parkway—between the City of Alexandria and Mount Vernon in Virginia—and the majority of the MVT, extending from Theodore Roosevelt Island and the intersection with the Custis Trail in Arlington, Virginia, to Mount Vernon (the portion of the MVT and GW Parkway under the jurisdiction of the City of Alexandria would not be part of this planning exercise). The project would develop context sensitive solutions that improve these resources while maintaining the GW Parkway's scenic and historic character. Safety enhancements may include potential geometric changes to both the road and trail, such as trail and trail bridge widening; trail intersection treatments; permanent implementation of a road diet on the GW Parkway; and the installation of signals, crosswalks, and other roadway intersection treatments.

The GW Parkway was established by Congress on May 29, 1930. It is a scenic roadway that runs along the Potomac River through Virginia, the District of Columbia, and Maryland, protecting the landscape and natural and cultural resources along the shoreline of the river while offering magnificent scenic vistas from Mount Vernon to Great Falls. It is part of the comprehensive system of parks, parkways, and

recreational areas surrounding the nation's capital and honors the nation's first president. The GWMP was listed in the National Register of Historic Places (NRHP) in 1995.

The southern portion of the GW Parkway, originally known as Mount Vernon Memorial Highway (MVMH), was under construction from 1929 to 1932, becoming part of the GW Parkway with its authorization in 1930. The MVMH extends 15.2 miles along the Potomac River from Arlington Memorial Bridge in Washington, DC to George Washington's historic home at Mount Vernon in Virginia. The MVMH was listed in the NRHP in 1981. For the purposes of this undertaking, the southern portion refers to the 8.5-mile stretch extending south from the north bank of Hunting Creek to the terminus at Mount Vernon.

The plan is needed to help preserve the historic parkway for future generations, improve the visitor experience, reduce annual park operations and maintenance costs, and improve visitor safety. The 2020 Safety Assessment prepared for the southern portion of the GW Parkway analyzed data from 389 crashes documented since 2005 (2005-2015; 2018-2019). Additionally, the pavement at the southern portion consists of reinforced concrete, which has been rated as being in overall "fair" condition. However, there are segments that are in poor condition, featuring deteriorated joints and undermined areas where holes of one foot or deeper are present.

There is also a need to address conditions along the MVT – an 18-mile paved multi-use trail that is one of the most heavily used multi-use trails in the country. It is a popular recreation resource and critical regional transportation link that hosts over one million pedestrians and bicyclists annually. The trail is relatively narrow by modern standards, and is characterized by meandering curves, timber bridges, and dense vegetation in some areas that lead to safety concerns. Such concerns, coupled with growing usage of the trail contributes to crowding, user conflicts, and crashes. Aside from providing site specific safety improvements, the plan seeks to address the deterioration and inadequacy of the pavement surfaces, shoulders, bridges, trail tread (condition and width), trail alignment, drainage, signage, and trailhead features (i.e., benches, drinking fountains, bike racks, etc.). The NPS originally constructed the MVT in the 1970s and 1980s, and although it is not listed as a historic resource, it is located within the GW Parkway Historic District boundaries and was identified as a contributing circulation feature due to its association with no longer extant foot trails and bridle paths in the MVMH North Cultural Landscapes Inventory (CLI). The VA SHPO concurred with the findings of the CLI, which serves as a consensus determination of eligibility on September 20, 2022. Therefore, the MVT is being considered NRHP-eligible for purposes of this undertaking.

The plan for safety improvements and addressing deferred maintenance would be informed by the recently completed GW Parkway Traffic and Safety Context Sensitive Solutions Assessment, the MVT Corridor Study, the project scoping assessment (PSA) for the MVT, as well as the Cultural Landscape Reports (CLR) and the Cultural Landscape Inventories (CLI) as baseline documents in evaluating alternatives.

Considerations of climate change, coastal hazards, and stormwater management will also influence the proposed alternatives. Two tributary streams (Hunting Creek, Little Hunting Creek) and a sizable marsh area are located at the southern portion of the Parkway. The Parkway and MVT bisect various segments of the marsh, and the streams flow under the Parkway and trail to the main river channel. A Coastal Hazards & Climate Change Asset Vulnerability Assessment was completed for the GW Parkway lands in 2017. In these areas, the Parkway, trail, and trail bridges are recognized as vulnerable resources due to floods, storm surge, and sea-level rise along the Potomac River. Stormwater management strategies and planning for resilient infrastructure are essential design considerations.

#### Section 106 Consultation and NEPA Coordination

In accordance with the Section 106 implementing regulations issued by the Advisory Council on Historic Preservation (36 CFR part 800), NPS will coordinate Section 106 consultation and ensure the meaningful involvement of all consulting parties while working to identify an Area of Potential Effect (APE) and historic properties within the APE. Later, continued consultation will work to seek agreement on the determination of effect to historic properties and whether any potential adverse effects to historic properties might be avoided, minimized, or mitigated.

The NPS will prepare an EA to document the analysis of potential impacts of the proposed plan in accordance with the National Environmental Policy Act (NEPA). The NPS plans to coordinate the Section 106 and NEPA processes per the implementing regulations (36 CFR § 800.8) of the NHPA. The NPS will also develop an Assessment of Effect for this project as a separate, but parallel, process to the EA.

#### Area of Potential Effect and Historic Properties

NPS has developed a graphic illustration of the draft APE that is subject to modification through the consultation process (see Attachment A). The draft APE for direct and indirect effects includes areas immediately adjacent to the MVT and the southern portion of the GW parkway as well as areas that may be used for construction staging or may experience a visual change from the undertaking. The draft APE consists of the area within the southernmost boundary of the GW Parkway (from Mount Vernon to the City of Alexandria) and a narrower portion of GW Parkway boundary, north of the City of Alexandria. The draft APE includes the western portion of the Theodore Roosevelt Island to consider any potential visual effects that may occur to that section of the MVT.

The boundaries of the draft APE overlap with several boundaries of historic properties, including the north section of the GW Parkway (listed as the George Washington Memorial Parkway) and the south section of the GW Parkway (listed as the MVMH). Other historic properties within the draft APE are the Theodore Roosevelt Island National Memorial, Arlington Memorial Bridge, Washington National Airport Terminal, Fort Hunt, and Mount Vernon. The draft APE also includes areas that have the potential to uncover archaeological resources.

#### Consulting Party Outreach

In accordance with 36 CFR Part 800.2(c), NPS identified parties that may be interested in the proposed plan for the southern portion of the GW Parkway and the MVT and its effect on historic properties. The following organizations will be invited to participate as Section 106 consulting parties:

- Virginia Department of Historic Resources (Virginia State Historic Preservation Office)
- DC State Historic Preservation Office
- National Capital Planning Commission
- Commission of Fine Arts
- Virginia Department of Transportation
- Fairfax County Department of Transportation
- Fairfax County Park Authority
- City of Alexandria Department of Planning and Zoning
- City of Alexandria Transportation and Environmental Services
- Arlington County Department of Environmental Services
- Arlington County Parks and Recreation
- Office of Dan Storck, Mount Vernon Supervisor
- George Washington's Mount Vernon (Mount Vernon Ladies Association)
- Friends of Dyke Marsh
- Friends of the Mount Vernon Trail
- Pamunkey Indian Tribe
- Upper Mattaponi Indian Tribe

- Rappahannock Tribe
- Nansemond Indian Nation
- Chickahominy Indian Tribe
- Chickahominy Indian Tribe Eastern Division
- Monacan Indian Nation
- Catawba Indian Nation
- Delaware Nation
- Absentee Shawnee Tribe of Indians of Oklahoma
- Shawnee Tribe

We look forward to beginning the Section 106 consultation process for this project. If you have any questions or preliminary feedback related to the project, the draft APE, and invited consulting parties please contact Matt Virta, Cultural Resources Program Manager for the GW Parkway, at [matthew\\_virta@nps.gov](mailto:matthew_virta@nps.gov).

Sincerely,

**Charles** Date:  
2022.11.15  
12:54:05 -05'00'  
**Cuvelier**

Charles Cuvelier  
Superintendent

Attachments: Attachment A – Draft Area of Potential Effect



## COMMONWEALTH of VIRGINIA

### Department of Historic Resources

Travis A. Voyles  
Acting Secretary of Natural and  
Historic Resources

2801 Kensington Avenue, Richmond, Virginia 23221

Julie V. Langan  
Director  
Tel: (804) 482-6446  
Fax: (804) 367-2391  
www.dhr.virginia.gov

December 7, 2022

Charles Cuvelier, Superintendent  
National Park Service - George Washington Memorial Parkway  
700 George Washington Memorial Parkway  
Turkey Run Park  
McLean, VA 22101

RE: *George Washington Memorial Parkway South Section and Mount Vernon Trail  
Improvement Plan / EA*  
City of Alexandria, Arlington and Fairfax County, Virginia  
DHR File No. 2022-5184

Dear Superintendent Cuvelier:

The Virginia Department of Historic Resources (DHR) has received your letter dated November 4, 2022, received on November 15, 2022, initiating the Section 106 consultation process for the above referenced project. This project entails addressing deferred maintenance needs and safety along the southern portion of the George Washington Memorial Parkway (GW Parkway) and the entirety of the Mount Vernon Trail (MVT).

DHR understands that the project consists of addressing deferred maintenance and improving safety on the south section of the GW Parkway—between the City of Alexandria and Mount Vernon in Virginia—and the majority of the MVT, extending from Theodore Roosevelt Island and the intersection with the Custis Trail in Arlington, Virginia, to Mount Vernon (the portion of the MVT and GW Parkway under the jurisdiction of the City of Alexandria would not be part of this planning exercise). The project would develop context sensitive solutions that improve these resources while maintaining the GW Parkway's scenic and historic character. Safety enhancements may include potential geometric changes to both the road and trail, such as trail and trail bridge widening; trail intersection treatments; permanent implementation of a road diet on the GW Parkway; and the installation of signals, crosswalks, and other roadway intersection treatments.

DHR has reviewed the maps provided with the consultation letter and has the following questions and comments:

- What method was used to create the draft area of potential effects (APE)?

Western Region Office  
962 Kime Lane  
Salem, VA 24153  
Tel: (540) 387-5443  
Fax: (540) 387-5446

Northern Region Office  
5357 Main Street  
PO Box 519  
Stephens City, VA 22655  
Tel: (540) 868-7029  
Fax: (540) 868-7033

Eastern Region Office  
2801 Kensington Avenue  
Richmond, VA 23221  
Tel: (804) 367-2323  
Fax: (804) 367-2391

- Was a linear buffer created, or was a view shed analysis conducted? It appears that some sections of the APE account for potential visual effects while other areas may not.
- Please provide VCRIS map(s) of the project area with the APE delineated.

If you have any questions regarding these questions and comments, please contact me at 804-482-8089 or via email, [jonathan.connolly@dhr.virginia.gov](mailto:jonathan.connolly@dhr.virginia.gov).

Sincerely,



Jonathan D. Connolly, Project Review Archaeologist  
Review and Compliance Division

Western Region Office  
962 Kime Lane  
Salem, VA 24153  
Tel: (540) 387-5443  
Fax: (540) 387-5446

Northern Region Office  
5357 Main Street  
PO Box 519  
Stephens City, VA 22655  
Tel: (540) 868-7029  
Fax: (540) 868-7033

Eastern Region Office  
2801 Kensington Avenue  
Richmond, VA 23221  
Tel: (804) 367-2323  
Fax: (804) 367-2391





## United States Department of the Interior

George Washington Memorial Parkway  
NATIONAL PARK SERVICE  
700 George Washington Memorial  
Parkway  
McLean, VA 22101

IN REPLY REFER TO:

January 13, 2023

Jonathan D. Connolly  
Project Review Archaeologist  
Review Compliance Division  
Department of Historic Resources  
2801 Kensington Avenue  
Richmond, VA 23221  
jonathan.connolly@dhr.virginia.gov

RE: George Washington Memorial Parkway South Section and Mount Vernon Trail  
Improvement Plan / EA - DHR File No. 2022-5184

Dear Mr. Connolly:

Thank you for your December 7, 2022, letter regarding comments on the Southern George Washington Memorial Parkway and Mount Vernon Trail Improvement Plan/Environmental Assessment (EA) which included requests for additional information about the project. The requested information is provided below and attached:

**1. What method was used to create the draft area of potential effects (APE)? Was a linear buffer created, or was a view shed analysis conducted? It appears that some sections of the APE account for potential visual effects while other areas may not.**

An official viewshed analysis was not completed. However, the APE was based on site visits and consideration of potential visual effects. North of Alexandria, a minimum buffer of approximately 90 ft (with the Mount Vernon Trail at the center) was employed. In areas north of National Airport, where the trail cuts in further from the Potomac River, the river is used as the eastern boundary (except at Gravelly Point where the relatively flat topography conceals the visibility of the trail, and it was determined visual effects would be limited to the immediate area surrounding the trail). At Theodore Roosevelt Island, the APE was expanded to encompass the western portion of the island.

South of Alexandria, the APE is restricted over Hunting Creek by the bridge. Otherwise, the APE extends a minimum of approximately 80 feet east of the trail, and the APE's western edge is generally the extent of the Mount Vernon Memorial Highway (MVMH) boundary. The APE largely considers that all road alterations would occur within the

footprint of the road itself and would not result in any visual effects outside the MVMH boundary. Where the APE varies from the MVMH boundary, this was a due to consideration of construction staging areas at Fort Hunt. For much of the southern portion of the trail, the natural topography (sloping towards the river) provides a visual buffer between development to the west and the MVMH and between the MVMH and the Mount Vernon Trail. In some areas south of Alexandria, the Mount Vernon Trail is outside the official MVMH boundary and so the APE is extended in those areas.

**2. Please provide VCRIS map(s) of the project area with the APE delineated.**

Please see attached.

We appreciate your attention to this project and look forward to your response. If you have any questions or preliminary feedback related to the project, the draft APE, and invited consulting parties please contact Megan Bailey, Acting Cultural Resources Program Manager for George Washington Memorial Parkway, at [Megan\\_Bailey@nps.gov](mailto:Megan_Bailey@nps.gov).

Sincerely,

Charles Cuvelier  
Date: 2023.01.11  
13:20:28 -05'00'

Charles Cuvelier  
Superintendent



## United States Department of the Interior

George Washington Memorial Parkway  
NATIONAL PARK SERVICE  
National Capital Region  
700 George Washington Memorial Parkway  
McLean, VA 22101

IN REPLY REFER TO:

November 4, 2022

David Maloney  
State Historic Preservation Officer  
Attn: Andrew Lewis and Dr. Ruth Troccoli  
1100 4<sup>th</sup> Street SW, Suite E650  
Washington, DC 20024  
*Sent by email to [david.maloney@dc.gov](mailto:david.maloney@dc.gov), [andrew.lewis@dc.gov](mailto:andrew.lewis@dc.gov), [ruth.troccoli@dc.gov](mailto:ruth.troccoli@dc.gov)*

Re: Initiation of Section 106 Consultation, George Washington Memorial Parkway South Section and Mount Vernon Trail Improvement Plan / Environmental Assessment

Dear Mr. Maloney:

The National Park Service (NPS) is preparing a plan and corresponding Environmental Assessment (EA) to address deferred maintenance needs and safety along the southern portion of the George Washington Memorial Parkway (GW Parkway) and the entirety of the Mount Vernon Trail (MVT). The NPS wishes to formally initiate consultation with the District of Columbia State Historic Preservation Office (DC SHPO), in compliance with Section 106 of the National Historic Preservation Act (NHPA) (54 U.S.C. § 306108) and its implementing regulations (36 CFR § 800).

### Description of the Undertaking

The plan would address deferred maintenance and improve safety on the south section of the GW Parkway—between the City of Alexandria and Mount Vernon in Virginia—and the majority of the MVT, extending from Theodore Roosevelt Island and the intersection with the Custis Trail in Arlington, Virginia, to Mount Vernon (the portion of the MVT and GW Parkway under the jurisdiction of the City of Alexandria would not be part of this planning exercise). The project would develop context sensitive solutions that improve these resources while maintaining the GW Parkway's scenic and historic character. Safety enhancements may include potential geometric changes to both the road and trail, such as trail and trail bridge widening; trail intersection treatments; permanent implementation of a road diet on the GW Parkway; and the installation of signals, crosswalks, and other roadway intersection treatments.

The GW Parkway was established by Congress on May 29, 1930. It is a scenic roadway that runs along the Potomac River through Virginia, the District of Columbia, and Maryland, protecting the landscape and natural and cultural resources along the shoreline of the river while offering magnificent scenic vistas from Mount Vernon to Great Falls. It is part of the comprehensive system of parks, parkways, and recreational areas surrounding the nation's capital and honors the nation's first president. The GWMP was listed in the National Register of Historic Places (NRHP) in 1995.

The southern portion of the GW Parkway, originally known as Mount Vernon Memorial Highway (MVMH), was under construction from 1929 to 1932, becoming part of the GW Parkway with its authorization in 1930. The MVMH extends 15.2 miles along the Potomac River from Arlington Memorial Bridge in Washington, DC to George Washington's historic home at Mount Vernon in Virginia. The MVMH was listed in the NRHP in 1981. For the purposes of this undertaking, the southern portion refers to the 8.5-mile stretch extending south from the north bank of Hunting Creek to the terminus at Mount Vernon.

The plan is needed to help preserve the historic parkway for future generations, improve the visitor experience, reduce annual park operations and maintenance costs, and improve visitor safety. The 2020 Safety Assessment prepared for the southern portion of the GW Parkway analyzed data from 389 crashes documented since 2005 (2005-2015; 2018-2019). Additionally, the pavement at the southern portion consists of reinforced concrete, which has been rated as being in overall "fair" condition. However, there are segments that are in poor condition, featuring deteriorated joints and undermined areas where holes of one foot or deeper are present.

There is also a need to address conditions along the MVT – an 18-mile paved multi-use trail that is one of the most heavily used multi-use trails in the country. It is a popular recreation resource and critical regional transportation link that hosts over one million pedestrians and bicyclists annually. The trail is relatively narrow by modern standards, and is characterized by meandering curves, timber bridges, and dense vegetation in some areas that lead to safety concerns. Such concerns, coupled with growing usage of the trail contributes to crowding, user conflicts, and crashes. Aside from providing site specific safety improvements, the plan seeks to address the deterioration and inadequacy of the pavement surfaces, shoulders, bridges, trail tread (condition and width), trail alignment, drainage, signage, and trailhead features (i.e., benches, drinking fountains, bike racks, etc.). The NPS originally constructed the MVT in the 1970s and 1980s, and although it is not listed as a historic resource, it is located within the GW Parkway Historic District boundaries and was identified as a contributing circulation feature due to its association with no longer extant foot trails and bridle paths in the MVMH North Cultural Landscapes Inventory (CLI). The VA SHPO concurred with the findings of the CLI, which serves as a consensus determination of eligibility on September 20, 2022. Therefore, the MVT is being considered NRHP-eligible for purposes of this undertaking.

The plan for safety improvements and addressing deferred maintenance would be informed by the recently completed GW Parkway Traffic and Safety Context Sensitive Solutions Assessment, the MVT Corridor Study, the project scoping assessment (PSA) for the MVT, as well as the Cultural Landscape Reports (CLR) and the Cultural Landscape Inventories (CLI) as baseline documents in evaluating alternatives.

Considerations of climate change, coastal hazards, and stormwater management will also influence the proposed alternatives. Two tributary streams (Hunting Creek, Little Hunting Creek) and a sizable marsh area are located at the southern portion of the Parkway. The Parkway and MVT bisect various segments of the marsh, and the streams flow under the Parkway and trail to the main river channel. A Coastal Hazards & Climate Change Asset Vulnerability Assessment was completed for the GW Parkway lands in 2017. In these areas, the Parkway, trail, and trail bridges are recognized as vulnerable resources due to floods, storm surge, and sea-level rise along the Potomac River. Stormwater management strategies and planning for resilient infrastructure are essential design considerations.

#### Section 106 Consultation and NEPA Coordination

In accordance with the Section 106 implementing regulations issued by the Advisory Council on Historic Preservation (36 CFR part 800), NPS will coordinate Section 106 consultation and ensure the meaningful involvement of all consulting parties while working to identify an Area of Potential Effect (APE) and

historic properties within the APE. Later, continued consultation will work to seek agreement on the determination of effect to historic properties and whether any potential adverse effects to historic properties might be avoided, minimized, or mitigated.

The NPS will prepare an EA to document the analysis of potential impacts of the proposed plan in accordance with the National Environmental Policy Act (NEPA). The NPS plans to coordinate the Section 106 and NEPA processes per the implementing regulations (36 CFR § 800.8) of the NHPA. The NPS will also develop an Assessment of Effect for this project as a separate, but parallel, process to the EA.

#### Area of Potential Effect and Historic Properties

NPS has developed a graphic illustration of the draft APE that is subject to modification through the consultation process (see Attachment A). The draft APE for direct and indirect effects includes areas immediately adjacent to the MVT and the southern portion of the GW parkway as well as areas that may be used for construction staging or may experience a visual change from the undertaking. The draft APE consists of the area within the southernmost boundary of the GW Parkway (from Mount Vernon to the City of Alexandria) and a narrower portion of GW Parkway boundary, north of the City of Alexandria. The draft APE includes the western portion of Theodore Roosevelt Island to consider any potential visual effects that may occur to that section of the MVT.

The boundaries of the draft APE overlap with several boundaries of historic properties, including the north section of the GW Parkway (listed as the George Washington Memorial Parkway) and the south section of the GW Parkway (listed as the MVMH). Other historic properties within the draft APE are the Theodore Roosevelt Island National Memorial, Arlington Memorial Bridge, Washington National Airport Terminal, Fort Hunt, and Mount Vernon. The draft APE also includes areas that have the potential to uncover archaeological resources.

#### Consulting Party Outreach

In accordance with 36 CFR Part 800.2(c), NPS identified parties that may be interested in the proposed plan for the southern portion of the GW Parkway and the MVT and its effect on historic properties. The following organizations will be invited to participate as Section 106 consulting parties:

- Virginia Department of Historic Resources  
(Virginia State Historic Preservation  
Office)
- DC State Historic Preservation Office
- National Capital Planning Commission
- Commission of Fine Arts
- Virginia Department of Transportation
- Fairfax County Department of  
Transportation
- Fairfax County Park Authority
- City of Alexandria Department of  
Planning and Zoning
- City of Alexandria Transportation and  
Environmental Services
- Arlington County Department of  
Environmental Services
- Arlington County Parks and Recreation
- Office of Dan Storck, Mount Vernon  
Supervisor
- George Washington's Mount Vernon  
(Mount Vernon Ladies Association)
- Friends of Dyke Marsh
- Friends of the Mount Vernon Trail
- Pamunkey Indian Tribe
- Upper Mattaponi Indian Tribe
- Rappahannock Tribe
- Nansemond Indian Nation
- Chickahominy Indian Tribe
- Chickahominy Indian Tribe Eastern  
Division
- Monacan Indian Nation
- Catawba Indian Nation
- Delaware Nation

- Absentee Shawnee Tribe of Indians of Oklahoma

- Shawnee Tribe

We look forward to beginning the Section 106 consultation process for this project. If you have any questions or preliminary feedback related to the project, the draft APE, and invited consulting parties please contact Matt Virta, Cultural Resources Program Manager for the GW Parkway, at [matthew\\_virta@nps.gov](mailto:matthew_virta@nps.gov).

Sincerely,

Charles Cuvelier  
Date: 2022.11.15  
12:58:16  
-05'00'  
Charles Cuvelier  
Superintendent

Attachments: Attachment A – Draft Area of Potential Effect



**Schrader, Brett**

---

**From:** Bailey, Megan M <megan\_bailey@nps.gov>  
**Sent:** Friday, August 18, 2023 5:05 PM  
**To:** Schrader, Brett  
**Subject:** Fw: [EXTERNAL] RE: Compliance - Section 106 Initiation Letters - South Section and MVT Improvements EA

See below

--  
Megan Bailey, PhD  
Cultural Resources Program Manager  
George Washington Memorial Parkway  
700 George Washington Memorial Parkway  
Turkey Run Park  
McLean, VA 22101  
703.289.2509 (office)  
202.438.6641 (cell)  
[megan\\_bailey@nps.gov](mailto:megan_bailey@nps.gov)

---

**From:** Lewis, Andrew (OP) <andrew.lewis@dc.gov>  
**Sent:** Wednesday, August 9, 2023 2:34 PM  
**To:** GWMP Superintendent, NPS <GWMP\_Superintendent@nps.gov>; Troccoli, Ruth (OP) <Ruth.Troccoli@dc.gov>  
**Cc:** Mocko, Robert <Robert\_Mocko@nps.gov>; Joseph, Maureen <Maureen\_Joseph@nps.gov>; Virta, Matthew <Matthew\_Virta@nps.gov>; Bailey, Megan M <megan\_bailey@nps.gov>  
**Subject:** [EXTERNAL] RE: Compliance - Section 106 Initiation Letters - South Section and MVT Improvements EA

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

All:

Thank you for providing an Assessment of Effects (AOE) Report for the above-referenced undertaking and for hosting today's consulting parties' meeting. As I indicated in the meeting, the AOE states that no comments were received from our office when Section 106 was initiated but, as evidenced by the email chain below, we did respond on December 9<sup>th</sup>, 2022 to indicate that we would provide more detailed comments once we learned more about the proposed scope of work.

Now that we have reviewed the AOE and participated in the meeting, we understand the general scope of work well enough to concur with the proposed determination of "no adverse effect" *as it relates to historic built environment resources*, but our determination is conditioned upon a review of specific plans for work to be carried out within the District of Columbia, especially that which is proposed near/under the Arlington Memorial Bridge and any other structure (e.g. culverts, bridges, etc.) that may be historically significant.

Please note that we will not necessarily need to review large volumes of highly technical drawings. The information we need is limited to that which will identify where the trail will be widened and by how much; where roadway alterations will be made and in what manner; how alterations to the Arlington Memorial Bridge and any other historically significant structures will be avoided and the like.

We understand that the proposed work is likely to be a design-build project and that FHWA's Eastern Federal Lands Division may be overseeing the development of the plans along with the NPS.

With regard to archaeology, we understand that the NPS has determined the project has potential for adverse effects on below grade resources and is proposing a Programmatic Agreement (PA) to address how Section 106 consultation will be carried out to address those potential effects. Ruth Troccoli, our City Archaeologist, is copied on this email and will provide a more detailed response as soon as possible but, as I also indicated in the meeting, a review of specific plans may suffice for our archaeological review as well. If so, we will not be a party to the PA.

If you should have any questions or comments regarding the historic built environment, please contact me. Questions or comments about archeology should be directed to Ruth. Otherwise, thank you for consulting with the DC State Historic Preservation Office regarding this matter. We look forward to consulting further as outlined in this message to complete the Section 106 review of this undertaking.

For future reference, our tracking number for this project is 23-0207.

Best regards,



C. Andrew Lewis, Senior Historic Preservation Specialist  
DC State Historic Preservation Office, DC Office of Planning  
1100 4<sup>th</sup> Street, SW, Suite E650, Washington, DC 20024  
202-442-8841  
[andrew.lewis@dc.gov](mailto:andrew.lewis@dc.gov)  
<http://planning.dc.gov/historicpreservation>

---

**From:** Lewis, Andrew (OP)

**Sent:** Friday, December 9, 2022 12:41 PM

**To:** GWMP Superintendent, NPS <GWMP\_Superintendent@nps.gov>; Troccoli, Ruth (OP) <Ruth.Troccoli@dc.gov>

**Cc:** Mocko, Robert <Robert\_Mocko@nps.gov>; Joseph, Maureen <Maureen\_Joseph@nps.gov>; Virta, Matthew <Matthew\_Virta@nps.gov>; Bailey, Megan M <megan\_bailey@nps.gov>

**Subject:** RE: Compliance - Section 106 Initiation Letters - South Section and MVT Improvements EA

Thank you for initiating Section 106 consultation with the DC State Historic Preservation Officer regarding the above-referenced undertaking. We look forward to learning more about the project and consulting with the NPS and consulting parties to evaluate the effects of the project on historic properties within the District of Columbia. We will provide detailed comments about the draft Area of Potential Effect and related topics once more specific information is provided for our review. In the meantime, we have assigned the following tracking number to the project: 23-0207.

Regards,



C. Andrew Lewis, Senior Historic Preservation Specialist  
DC State Historic Preservation Office, DC Office of Planning  
1100 4<sup>th</sup> Street, SW, Suite E650, Washington, DC 20024  
202-442-8841  
[andrew.lewis@dc.gov](mailto:andrew.lewis@dc.gov)  
<http://planning.dc.gov/historicpreservation>

---

**From:** Morales, Brendaliz <[brendaliz\\_morales@nps.gov](mailto:brendaliz_morales@nps.gov)> **On Behalf Of** GWMP Superintendent, NPS  
**Sent:** Tuesday, November 15, 2022 3:16 PM  
**To:** Maloney, David (OP) <[david.maloney@dc.gov](mailto:david.maloney@dc.gov)>; Lewis, Andrew (OP) <[andrew.lewis@dc.gov](mailto:andrew.lewis@dc.gov)>; Troccoli, Ruth (OP) <[Ruth.Troccoli@dc.gov](mailto:Ruth.Troccoli@dc.gov)>  
**Cc:** Mocko, Robert <[Robert\\_Mocko@nps.gov](mailto:Robert_Mocko@nps.gov)>; Joseph, Maureen <[Maureen\\_Joseph@nps.gov](mailto:Maureen_Joseph@nps.gov)>; Virta, Matthew <[Matthew\\_Virta@nps.gov](mailto:Matthew_Virta@nps.gov)>; Bailey, Megan M <[megan\\_bailey@nps.gov](mailto:megan_bailey@nps.gov)>  
**Subject:** Compliance - Section 106 Initiation Letters - South Section and MVT Improvements EA

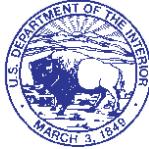
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Good afternoon,

Please see attached.

Superintendent  
George Washington Memorial Parkway

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**Attention:** Ce courriel provient de l'extérieur de Stantec. Veuillez prendre des précautions supplémentaires.  
**Atención:** Este correo electrónico proviene de fuera de Stantec. Por favor, tome precauciones adicionales.



## United States Department of the Interior

George Washington Memorial Parkway  
NATIONAL PARK SERVICE  
National Capital Region  
700 George Washington Memorial Parkway  
McLean, VA 22101

IN REPLY REFER TO:

November 4, 2022

John Johnson, Governor  
Absentee Shawnee Tribe of Indians of Oklahoma  
Attn: Devon Frazier  
2025 South Gordon Cooper Drive  
Shawnee, Oklahoma 74801  
*Sent by email to [jjohnson@astribe.com](mailto:jjohnson@astribe.com), [106NAGPRA@astribe.com](mailto:106NAGPRA@astribe.com)*

Re: Initiation of Section 106 Consultation, George Washington Memorial Parkway South Section and Mount Vernon Trail Improvement Plan / Environmental Assessment

Dear Governor Johnson:

The National Park Service (NPS) is preparing a plan and corresponding Environmental Assessment (EA) to address deferred maintenance needs and safety along the southern portion of the George Washington Memorial Parkway (GW Parkway) and the entirety of the Mount Vernon Trail (MVT). The NPS understands the Absentee Shawnee Tribe of Indians of Oklahoma to have interest in the preservation of Native American cultural resources of significance in this region and is writing to formally initiate consultation in compliance with Section 106 of the National Historic Preservation Act (NHPA) (54 U.S.C. § 306108) and its implementing regulations (36 CFR § 800).

### Description of the Undertaking

The plan would address deferred maintenance and improve safety on the south section of the GW Parkway—between the City of Alexandria and Mount Vernon in Virginia—and the majority of the MVT, extending from Theodore Roosevelt Island and the intersection with the Custis Trail in Arlington, Virginia, to Mount Vernon (the portion of the MVT and GW Parkway under the jurisdiction of the City of Alexandria would not be part of this planning exercise). The project would develop context sensitive solutions that improve these resources while maintaining the GW Parkway's scenic and historic character. Safety enhancements may include potential geometric changes to both the road and trail, such as trail and trail bridge widening; trail intersection treatments; permanent implementation of a road diet on the GW Parkway; and the installation of signals, crosswalks, and other roadway intersection treatments.

The GW Parkway was established by Congress on May 29, 1930. It is a scenic roadway that runs along the Potomac River through Virginia, the District of Columbia, and Maryland, protecting the landscape and natural and cultural resources along the shoreline of the river while offering magnificent scenic vistas from Mount Vernon to Great Falls. It is part of the comprehensive system of parks, parkways, and recreational areas surrounding the nation's capital and honors the nation's first president. The GW Parkway was listed in the National Register of Historic Places (NRHP) in 1995.

The southern portion of the GW Parkway, originally known as Mount Vernon Memorial Highway (MVMH), was under construction from 1929 to 1932, becoming part of the GW Parkway with its authorization in 1930. The MVMH extends 15.2 miles along the Potomac River from Arlington Memorial Bridge in Washington, DC to George Washington's historic home at Mount Vernon in Virginia. The MVMH was listed in the NRHP in 1981. For the purposes of this undertaking, the southern portion refers to the 8.5-mile stretch extending south from the north bank of Hunting Creek to the terminus at Mount Vernon.

The plan is needed to help preserve the historic parkway for future generations, improve the visitor experience, reduce annual park operations and maintenance costs, and improve visitor safety. The 2020 Safety Assessment prepared for the southern portion of the GW Parkway analyzed data from 389 crashes documented since 2005 (2005-2015; 2018-2019). Additionally, the pavement at the southern portion consists of reinforced concrete, which has been rated as being in overall "fair" condition. However, there are segments that are in poor condition, featuring deteriorated joints and undermined areas where holes of one foot or deeper are present.

There is also a need to address conditions along the MVT – an 18-mile paved multi-use trail that is one of the most heavily used multi-use trails in the country. It is a popular recreation resource and critical regional transportation link that hosts over one million pedestrians and bicyclists annually. The trail is relatively narrow by modern standards, and is characterized by meandering curves, timber bridges, and dense vegetation in some areas that lead to safety concerns. Such concerns, coupled with growing usage of the trail contributes to crowding, user conflicts, and crashes. Aside from providing site specific safety improvements, the plan seeks to address the deterioration and inadequacy of the pavement surfaces, shoulders, bridges, trail tread (condition and width), trail alignment, drainage, signage, and trailhead features (i.e., benches, drinking fountains, bike racks, etc.). The NPS originally constructed the MVT in the 1970s and 1980s, and although it is not listed as a historic resource, it is located within the GW Parkway Historic District boundaries and was identified as a contributing circulation feature due to its association with no longer extant foot trails and bridle paths in the MVMH North Cultural Landscapes Inventory (CLI). The VA SHPO concurred with the findings of the CLI, which serves as a consensus determination of eligibility on September 20, 2022. Therefore, the MVT is being considered NRHP-eligible for purposes of this undertaking.

The plan for safety improvements and addressing deferred maintenance would be informed by the recently completed GW Parkway Traffic and Safety Context Sensitive Solutions Assessment, the MVT Corridor Study, the project scoping assessment (PSA) for the MVT, as well as the Cultural Landscape Reports (CLR) and the Cultural Landscape Inventories (CLI) as baseline documents in evaluating alternatives.

Considerations of climate change, coastal hazards, and stormwater management will also influence the proposed alternatives. Two tributary streams (Hunting Creek, Little Hunting Creek) and a sizable marsh area are located at the southern portion of the Parkway. The Parkway and MVT bisect various segments of the marsh, and the streams flow under the Parkway and trail to the main river channel. A Coastal Hazards & Climate Change Asset Vulnerability Assessment was completed for the GW Parkway lands in 2017. In these areas, the Parkway, trail, and trail bridges are recognized as vulnerable resources due to floods, storm surge, and sea-level rise along the Potomac River. Stormwater management strategies and planning for resilient infrastructure are essential design considerations.

#### Section 106 Consultation and NEPA Coordination

In accordance with the Section 106 implementing regulations issued by the Advisory Council on Historic Preservation (36 CFR part 800), NPS will coordinate Section 106 consultation and ensure the meaningful involvement of all consulting parties while working to identify an Area of Potential Effect (APE) and

historic properties within the APE. Later, continued consultation will work to seek agreement on the determination of effect to historic properties and whether any potential adverse effects to historic properties might be avoided, minimized, or mitigated.

The NPS will prepare an EA to document the analysis of potential impacts of the proposed plan in accordance with the National Environmental Policy Act (NEPA). The NPS plans to coordinate the Section 106 and NEPA processes per the implementing regulations (36 CFR § 800.8) of the NHPA. The NPS will also develop an Assessment of Effect for this project as a separate, but parallel, process to the EA.

#### Area of Potential Effect and Historic Properties

NPS has developed a graphic illustration of the draft APE that is subject to modification through the consultation process. The draft APE for direct and indirect effects includes areas immediately adjacent to the MVT and the southern portion of the GW parkway as well as areas that may be used for construction staging or may experience a visual change from the undertaking. The draft APE consists of the area within the southernmost boundary of the GW Parkway (from Mount Vernon to the City of Alexandria) and a narrower portion of GW Parkway boundary, north of the City of Alexandria. The draft APE includes the western portion of Theodore Roosevelt Island to consider any potential visual effects that may occur to that section of the MVT.

The boundaries of the draft APE overlap with several boundaries of historic properties, including the north section of the GW Parkway (listed as the George Washington Memorial Parkway) and the south section of the GW Parkway (listed as the MVMH). Other historic properties within the draft APE are the Theodore Roosevelt Island National Memorial, Arlington Memorial Bridge, Washington National Airport Terminal, Fort Hunt, and Mount Vernon. The draft APE also includes areas that have the potential to uncover archaeological resources.

#### Consulting Party Outreach

In accordance with 36 CFR Part 800.2(c), NPS identified parties that may be interested in the proposed plan for the southern portion of the GW Parkway and the MVT and its effect on historic properties. The following organizations will be invited to participate as Section 106 consulting parties:

- Virginia Department of Historic Resources (Virginia State Historic Preservation Office)
- DC State Historic Preservation Office
- National Capital Planning Commission
- Commission of Fine Arts
- Virginia Department of Transportation
- Fairfax County Department of Transportation
- Fairfax County Park Authority
- City of Alexandria Department of Planning and Zoning
- City of Alexandria Transportation and Environmental Services
- Arlington County Department of Environmental Services
- Arlington County Parks and Recreation
- Office of Dan Storck, Mount Vernon Supervisor
- George Washington's Mount Vernon (Mount Vernon Ladies Association)
- Friends of Dyke Marsh
- Friends of the Mount Vernon Trail
- Pamunkey Indian Tribe
- Upper Mattaponi Indian Tribe
- Rappahannock Tribe
- Nansemond Indian Nation
- Chickahominy Indian Tribe
- Chickahominy Indian Tribe Eastern Division
- Monacan Indian Nation
- Catawba Indian Nation
- Delaware Nation

- Absentee Shawnee Tribe of Indians of Oklahoma

- Shawnee Tribe

We look forward to beginning the Section 106 consultation process for this project. If you have any questions or preliminary feedback related to the project and invited consulting parties please contact Matt Virta, Cultural Resources Program Manager for the GW Parkway, at [matthew\\_virta@nps.gov](mailto:matthew_virta@nps.gov).

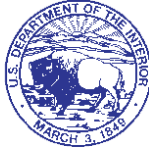
Sincerely,

**Charles** Date:  
2022.11.15  
**Cuvelier** 13:00:19 -05'00'

Charles Cuvelier  
Superintendent

Attachments: Attachment A – Draft Area of Potential Effect





## United States Department of the Interior

George Washington Memorial Parkway  
NATIONAL PARK SERVICE  
National Capital Region  
700 George Washington Memorial Parkway  
McLean, VA 22101

IN REPLY REFER TO:

November 4, 2022

William Harris, Chief  
Catawba Indian Nation  
Attn: Dr. Wenonah G. Haire  
996 Avenue of the Nations  
Rock Hill, South Carolina 29730  
*Also sent by email to [bill.harris@catawbaindian.net](mailto:bill.harris@catawbaindian.net), [wenonah.haire@catawba.com](mailto:wenonah.haire@catawba.com)*

Re: Initiation of Section 106 Consultation, George Washington Memorial Parkway South Section and Mount Vernon Trail Improvement Plan / Environmental Assessment

Dear Chief Harris:

The National Park Service (NPS) is preparing a plan and corresponding Environmental Assessment (EA) to address deferred maintenance needs and safety along the southern portion of the George Washington Memorial Parkway (GW Parkway) and the entirety of the Mount Vernon Trail (MVT). The NPS understands the Catawba Indian Nation to have interest in the preservation of Native American cultural resources of significance in this region and is writing to formally initiate consultation in compliance with Section 106 of the National Historic Preservation Act (NHPA) (54 U.S.C. § 306108) and its implementing regulations (36 CFR § 800).

### Description of the Undertaking

The plan would address deferred maintenance and improve safety on the south section of the GW Parkway—between the City of Alexandria and Mount Vernon in Virginia—and the majority of the MVT, extending from Theodore Roosevelt Island and the intersection with the Custis Trail in Arlington, Virginia, to Mount Vernon (the portion of the MVT and GW Parkway under the jurisdiction of the City of Alexandria would not be part of this planning exercise). The project would develop context sensitive solutions that improve these resources while maintaining the GW Parkway's scenic and historic character. Safety enhancements may include potential geometric changes to both the road and trail, such as trail and trail bridge widening; trail intersection treatments; permanent implementation of a road diet on the GW Parkway; and the installation of signals, crosswalks, and other roadway intersection treatments.

The GW Parkway was established by Congress on May 29, 1930. It is a scenic roadway that runs along the Potomac River through Virginia, the District of Columbia, and Maryland, protecting the landscape and natural and cultural resources along the shoreline of the river while offering magnificent scenic vistas from Mount Vernon to Great Falls. It is part of the comprehensive system of parks, parkways, and recreational areas surrounding the nation's capital and honors the nation's first president. The GW Parkway was listed in the National Register of Historic Places (NRHP) in 1995.

The southern portion of the GW Parkway, originally known as Mount Vernon Memorial Highway (MVMH), was under construction from 1929 to 1932, becoming part of the GW Parkway with its authorization in 1930. The MVMH extends 15.2 miles along the Potomac River from Arlington Memorial Bridge in Washington, DC to George Washington's historic home at Mount Vernon in Virginia. The MVMH was listed in the NRHP in 1981. For the purposes of this undertaking, the southern portion refers to the 8.5-mile stretch extending south from the north bank of Hunting Creek to the terminus at Mount Vernon.

The plan is needed to help preserve the historic parkway for future generations, improve the visitor experience, reduce annual park operations and maintenance costs, and improve visitor safety. The 2020 Safety Assessment prepared for the southern portion of the GW Parkway analyzed data from 389 crashes documented since 2005 (2005-2015; 2018-2019). Additionally, the pavement at the southern portion consists of reinforced concrete, which has been rated as being in overall "fair" condition. However, there are segments that are in poor condition, featuring deteriorated joints and undermined areas where holes of one foot or deeper are present.

There is also a need to address conditions along the MVT – an 18-mile paved multi-use trail that is one of the most heavily used multi-use trails in the country. It is a popular recreation resource and critical regional transportation link that hosts over one million pedestrians and bicyclists annually. The trail is relatively narrow by modern standards, and is characterized by meandering curves, timber bridges, and dense vegetation in some areas that lead to safety concerns. Such concerns, coupled with growing usage of the trail contributes to crowding, user conflicts, and crashes. Aside from providing site specific safety improvements, the plan seeks to address the deterioration and inadequacy of the pavement surfaces, shoulders, bridges, trail tread (condition and width), trail alignment, drainage, signage, and trailhead features (i.e., benches, drinking fountains, bike racks, etc.). The NPS originally constructed the MVT in the 1970s and 1980s, and although it is not listed as a historic resource, it is located within the GW Parkway Historic District boundaries and was identified as a contributing circulation feature due to its association with no longer extant foot trails and bridle paths in the MVMH North Cultural Landscapes Inventory (CLI). The VA SHPO concurred with the findings of the CLI, which serves as a consensus determination of eligibility on September 20, 2022. Therefore, the MVT is being considered NRHP-eligible for purposes of this undertaking.

The plan for safety improvements and addressing deferred maintenance would be informed by the recently completed GW Parkway Traffic and Safety Context Sensitive Solutions Assessment, the MVT Corridor Study, the project scoping assessment (PSA) for the MVT, as well as the Cultural Landscape Reports (CLR) and the Cultural Landscape Inventories (CLI) as baseline documents in evaluating alternatives.

Considerations of climate change, coastal hazards, and stormwater management will also influence the proposed alternatives. Two tributary streams (Hunting Creek, Little Hunting Creek) and a sizable marsh area are located at the southern portion of the Parkway. The Parkway and MVT bisect various segments of the marsh, and the streams flow under the Parkway and trail to the main river channel. A Coastal Hazards & Climate Change Asset Vulnerability Assessment was completed for the GW Parkway lands in 2017. In these areas, the Parkway, trail, and trail bridges are recognized as vulnerable resources due to floods, storm surge, and sea-level rise along the Potomac River. Stormwater management strategies and planning for resilient infrastructure are essential design considerations.

#### Section 106 Consultation and NEPA Coordination

In accordance with the Section 106 implementing regulations issued by the Advisory Council on Historic Preservation (36 CFR part 800), NPS will coordinate Section 106 consultation and ensure the meaningful involvement of all consulting parties while working to identify an Area of Potential Effect (APE) and

historic properties within the APE. Later, continued consultation will work to seek agreement on the determination of effect to historic properties and whether any potential adverse effects to historic properties might be avoided, minimized, or mitigated.

The NPS will prepare an EA to document the analysis of potential impacts of the proposed plan in accordance with the National Environmental Policy Act (NEPA). The NPS plans to coordinate the Section 106 and NEPA processes per the implementing regulations (36 CFR § 800.8) of the NHPA. The NPS will also develop an Assessment of Effect for this project as a separate, but parallel, process to the EA.

#### Area of Potential Effect and Historic Properties

NPS has developed a graphic illustration of the draft APE that is subject to modification through the consultation process. The draft APE for direct and indirect effects includes areas immediately adjacent to the MVT and the southern portion of the GW parkway as well as areas that may be used for construction staging or may experience a visual change from the undertaking. The draft APE consists of the area within the southernmost boundary of the GW Parkway (from Mount Vernon to the City of Alexandria) and a narrower portion of GW Parkway boundary, north of the City of Alexandria. The draft APE includes the western portion of Theodore Roosevelt Island to consider any potential visual effects that may occur to that section of the MVT.

The boundaries of the draft APE overlap with several boundaries of historic properties, including the north section of the GW Parkway (listed as the George Washington Memorial Parkway) and the south section of the GW Parkway (listed as the MVMH). Other historic properties within the draft APE are the Theodore Roosevelt Island National Memorial, Arlington Memorial Bridge, Washington National Airport Terminal, Fort Hunt, and Mount Vernon. The draft APE also includes areas that have the potential to uncover archaeological resources.

#### Consulting Party Outreach

In accordance with 36 CFR Part 800.2(c), NPS identified parties that may be interested in the proposed plan for the southern portion of the GW Parkway and the MVT and its effect on historic properties. The following organizations will be invited to participate as Section 106 consulting parties:

- Virginia Department of Historic Resources (Virginia State Historic Preservation Office)
- DC State Historic Preservation Office
- National Capital Planning Commission
- Commission of Fine Arts
- Virginia Department of Transportation
- Fairfax County Department of Transportation
- Fairfax County Park Authority
- City of Alexandria Department of Planning and Zoning
- City of Alexandria Transportation and Environmental Services
- Arlington County Department of Environmental Services
- Arlington County Parks and Recreation
- Office of Dan Storck, Mount Vernon Supervisor
- George Washington's Mount Vernon (Mount Vernon Ladies Association)
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We look forward to beginning the Section 106 consultation process for this project. If you have any questions or preliminary feedback related to the project and invited consulting parties please contact Matt Virta, Cultural Resources Program Manager for the GW Parkway, at [matthew\\_virta@nps.gov](mailto:matthew_virta@nps.gov).

Sincerely,

**Charles** Date: 2022.11.15  
**Cuvelier** 12:59:45 -05'00'

Charles Cuvelier  
Superintendent

Attachments: Attachment A – Draft Area of Potential Effect



## United States Department of the Interior

George Washington Memorial Parkway  
NATIONAL PARK SERVICE  
National Capital Region  
700 George Washington Memorial Parkway  
McLean, VA 22101

IN REPLY REFER TO:

November 4, 2022

Stephen Adkins, Chief  
Chickahominy Indian Tribe  
Attn: Dana Adkins  
7240 Adkins Road  
Charles City, Virginia 23030  
*Sent by email to [Stephenradkins@aol.com](mailto:Stephenradkins@aol.com), [chiefstephenadkins@gmail.com](mailto:chiefstephenadkins@gmail.com),  
[dana.adkins@chickahominytribe.org](mailto:dana.adkins@chickahominytribe.org)*

Re: Initiation of Section 106 Consultation, George Washington Memorial Parkway South Section and Mount Vernon Trail Improvement Plan / Environmental Assessment

Dear Chief Adkins:

The National Park Service (NPS) is preparing a plan and corresponding Environmental Assessment (EA) to address deferred maintenance needs and safety along the southern portion of the George Washington Memorial Parkway (GW Parkway) and the entirety of the Mount Vernon Trail (MVT). The NPS understands the Chickahominy Indian Tribe to have interest in the preservation of Native American cultural resources of significance in this region and is writing to formally initiate consultation in compliance with Section 106 of the National Historic Preservation Act (NHPA) (54 U.S.C. § 306108) and its implementing regulations (36 CFR § 800).

### Description of the Undertaking

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The southern portion of the GW Parkway, originally known as Mount Vernon Memorial Highway (MVMH), was under construction from 1929 to 1932, becoming part of the GW Parkway with its authorization in 1930. The MVMH extends 15.2 miles along the Potomac River from Arlington Memorial Bridge in Washington, DC to George Washington’s historic home at Mount Vernon in Virginia. The MVMH was listed in the NRHP in 1981. For the purposes of this undertaking, the southern portion refers to the 8.5-mile stretch extending south from the north bank of Hunting Creek to the terminus at Mount Vernon.

The plan is needed to help preserve the historic parkway for future generations, improve the visitor experience, reduce annual park operations and maintenance costs, and improve visitor safety. The 2020 Safety Assessment prepared for the southern portion of the GW Parkway analyzed data from 389 crashes documented since 2005 (2005-2015; 2018-2019). Additionally, the pavement at the southern portion consists of reinforced concrete, which has been rated as being in overall “fair” condition. However, there are segments that are in poor condition, featuring deteriorated joints and undermined areas where holes of one foot or deeper are present.

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#### Consulting Party Outreach

In accordance with 36 CFR Part 800.2(c), NPS identified parties that may be interested in the proposed plan for the southern portion of the GW Parkway and the MVT and its effect on historic properties. The following organizations will be invited to participate as Section 106 consulting parties:

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- DC State Historic Preservation Office
- National Capital Planning Commission
- Commission of Fine Arts
- Virginia Department of Transportation
- Fairfax County Department of Transportation
- Fairfax County Park Authority
- City of Alexandria Department of Planning and Zoning
- City of Alexandria Transportation and Environmental Services
- Arlington County Department of Environmental Services
- Arlington County Parks and Recreation
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- Shawnee Tribe

We look forward to beginning the Section 106 consultation process for this project. If you have any questions or preliminary feedback related to the project and invited consulting parties please contact Matt Virta, Cultural Resources Program Manager for the GW Parkway, at [matthew\\_virta@nps.gov](mailto:matthew_virta@nps.gov).

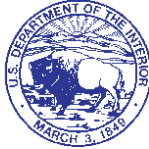
Sincerely,

Charles Cuvelier

Date:  
2022.11.15  
12:59:21  
-05'00'

Charles Cuvelier  
Superintendent

Attachments: Attachment A – Draft Area of Potential Effect



## United States Department of the Interior

George Washington Memorial Parkway  
NATIONAL PARK SERVICE  
National Capital Region  
700 George Washington Memorial Parkway  
McLean, VA 22101

IN REPLY REFER TO:

November 4, 2022

Gerald Stewart, Chief  
Chickahominy Tribe Eastern Division  
1191 Indian Hill Lane  
Providence Forge, Virginia 23140  
*Sent by email to [wasandson@cox.net](mailto:wasandson@cox.net)*

Re: Initiation of Section 106 Consultation, George Washington Memorial Parkway South Section and Mount Vernon Trail Improvement Plan / Environmental Assessment

Dear Chief Stewart:

The National Park Service (NPS) is preparing a plan and corresponding Environmental Assessment (EA) to address deferred maintenance needs and safety along the southern portion of the George Washington Memorial Parkway (GW Parkway) and the entirety of the Mount Vernon Trail (MVT). The NPS understands the Chickahominy Tribe Eastern Division to have interest in the preservation of Native American cultural resources of significance in this region and is writing to formally initiate consultation in compliance with Section 106 of the National Historic Preservation Act (NHPA) (54 U.S.C. § 306108) and its implementing regulations (36 CFR § 800).

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- Shawnee Tribe

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Sincerely,

**Charles** Date:  
2022.11.15  
**Cuvelier** 12:58:41 -05'00'

Charles Cuvelier  
Superintendent

Attachments: Attachment A – Draft Area of Potential Effect



## United States Department of the Interior

George Washington Memorial Parkway  
NATIONAL PARK SERVICE  
National Capital Region  
700 George Washington Memorial Parkway  
McLean, VA 22101

IN REPLY REFER TO:

November 4, 2022

Deborah Dotson, President  
Delaware Nation  
Attn: Carissa Speck  
P.O. Box 825  
Anadarko, Oklahoma 73005

Sent by email to [ddotson@delawarenation-nsn.gov](mailto:ddotson@delawarenation-nsn.gov), [cspeck@delawarenation-nsn.gov](mailto:cspeck@delawarenation-nsn.gov)

Re: Initiation of Section 106 Consultation, George Washington Memorial Parkway South Section and Mount Vernon Trail Improvement Plan / Environmental Assessment

Dear President Dotson:

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#### Description of the Undertaking

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The plan is needed to help preserve the historic parkway for future generations, improve the visitor experience, reduce annual park operations and maintenance costs, and improve visitor safety. The 2020 Safety Assessment prepared for the southern portion of the GW Parkway analyzed data from 389 crashes documented since 2005 (2005-2015; 2018-2019). Additionally, the pavement at the southern portion consists of reinforced concrete, which has been rated as being in overall "fair" condition. However, there are segments that are in poor condition, featuring deteriorated joints and undermined areas where holes of one foot or deeper are present.

There is also a need to address conditions along the MVT – an 18-mile paved multi-use trail that is one of the most heavily used multi-use trails in the country. It is a popular recreation resource and critical regional transportation link that hosts over one million pedestrians and bicyclists annually. The trail is relatively narrow by modern standards, and is characterized by meandering curves, timber bridges, and dense vegetation in some areas that lead to safety concerns. Such concerns, coupled with growing usage of the trail contributes to crowding, user conflicts, and crashes. Aside from providing site specific safety improvements, the plan seeks to address the deterioration and inadequacy of the pavement surfaces, shoulders, bridges, trail tread (condition and width), trail alignment, drainage, signage, and trailhead features (i.e., benches, drinking fountains, bike racks, etc.). The NPS originally constructed the MVT in the 1970s and 1980s, and although it is not listed as a historic resource, it is located within the GW Parkway Historic District boundaries and was identified as a contributing circulation feature due to its association with no longer extant foot trails and bridle paths in the MVMH North Cultural Landscapes Inventory (CLI). The VA SHPO concurred with the findings of the CLI, which serves as a consensus determination of eligibility on September 20, 2022. Therefore, the MVT is being considered NRHP-eligible for purposes of this undertaking.

The plan for safety improvements and addressing deferred maintenance would be informed by the recently completed GW Parkway Traffic and Safety Context Sensitive Solutions Assessment, the MVT Corridor Study, the project scoping assessment (PSA) for the MVT, as well as the Cultural Landscape Reports (CLR) and the Cultural Landscape Inventories (CLI) as baseline documents in evaluating alternatives.

Considerations of climate change, coastal hazards, and stormwater management will also influence the proposed alternatives. Two tributary streams (Hunting Creek, Little Hunting Creek) and a sizable marsh area are located at the southern portion of the Parkway. The Parkway and MVT bisect various segments of the marsh, and the streams flow under the Parkway and trail to the main river channel. A Coastal Hazards & Climate Change Asset Vulnerability Assessment was completed for the GW Parkway lands in 2017. In these areas, the Parkway, trail, and trail bridges are recognized as vulnerable resources due to floods, storm surge, and sea-level rise along the Potomac River. Stormwater management strategies and planning for resilient infrastructure are essential design considerations.

#### Section 106 Consultation and NEPA Coordination

In accordance with the Section 106 implementing regulations issued by the Advisory Council on Historic Preservation (36 CFR part 800), NPS will coordinate Section 106 consultation and ensure the meaningful involvement of all consulting parties while working to identify an Area of Potential Effect (APE) and



historic properties within the APE. Later, continued consultation will work to seek agreement on the determination of effect to historic properties and whether any potential adverse effects to historic properties might be avoided, minimized, or mitigated.

The NPS will prepare an EA to document the analysis of potential impacts of the proposed plan in accordance with the National Environmental Policy Act (NEPA). The NPS plans to coordinate the Section 106 and NEPA processes per the implementing regulations (36 CFR § 800.8) of the NHPA. The NPS will also develop an Assessment of Effect for this project as a separate, but parallel, process to the EA.

#### Area of Potential Effect and Historic Properties

NPS has developed a graphic illustration of the draft APE that is subject to modification through the consultation process. The draft APE for direct and indirect effects includes areas immediately adjacent to the MVT and the southern portion of the GW parkway as well as areas that may be used for construction staging or may experience a visual change from the undertaking. The draft APE consists of the area within the southernmost boundary of the GW Parkway (from Mount Vernon to the City of Alexandria) and a narrower portion of GW Parkway boundary, north of the City of Alexandria. The draft APE includes the western portion of Theodore Roosevelt Island to consider any potential visual effects that may occur to that section of the MVT.

The boundaries of the draft APE overlap with several boundaries of historic properties, including the north section of the GW Parkway (listed as the George Washington Memorial Parkway) and the south section of the GW Parkway (listed as the MVMH). Other historic properties within the draft APE are the Theodore Roosevelt Island National Memorial, Arlington Memorial Bridge, Washington National Airport Terminal, Fort Hunt, and Mount Vernon. The draft APE also includes areas that have the potential to uncover archaeological resources.

#### Consulting Party Outreach

In accordance with 36 CFR Part 800.2(c), NPS identified parties that may be interested in the proposed plan for the southern portion of the GW Parkway and the MVT and its effect on historic properties. The following organizations will be invited to participate as Section 106 consulting parties:

- Virginia Department of Historic Resources (Virginia State Historic Preservation Office)
- DC State Historic Preservation Office
- National Capital Planning Commission
- Commission of Fine Arts
- Virginia Department of Transportation
- Fairfax County Department of Transportation
- Fairfax County Park Authority
- City of Alexandria Department of Planning and Zoning
- City of Alexandria Transportation and Environmental Services
- Arlington County Department of Environmental Services
- Arlington County Parks and Recreation
- Office of Dan Storck, Mount Vernon Supervisor
- George Washington's Mount Vernon (Mount Vernon Ladies Association)
- Friends of Dyke Marsh
- Friends of the Mount Vernon Trail
- Pamunkey Indian Tribe
- Upper Mattaponi Indian Tribe
- Rappahannock Tribe
- Nansemond Indian Nation
- Chickahominy Indian Tribe
- Chickahominy Indian Tribe Eastern Division
- Monacan Indian Nation
- Catawba Indian Nation
- Delaware Nation

- Absentee Shawnee Tribe of Indians of Oklahoma

- Shawnee Tribe

We look forward to beginning the Section 106 consultation process for this project. If you have any questions or preliminary feedback related to the project and invited consulting parties please contact Matt Virta, Cultural Resources Program Manager for the GW Parkway, at [matthew\\_virta@nps.gov](mailto:matthew_virta@nps.gov).

Sincerely,

Charles Cuvelier  
Date: 2022.11.15  
12:57:34 -05'00'

Charles Cuvelier  
Superintendent

Attachments: Attachment A – Draft Area of Potential Effect



**Delaware Nation**  
**Tribal Historic Preservation Department**

31064 State Highway 281  
Anadarko, OK 73005  
Phone (405)247-2448

November 21, 2022

To Whom It May Concern:

The Delaware Nation Historic Preservation Department received correspondence regarding the following referenced project(s):

**Project:**

NPS George Washington Memorial Parkway South Section and Mount Vernon Trail Improvement Plan / Environmental Assessment VA

In accordance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. 470f), and implementing regulation 36 CFR 800, "Protection of Historic Properties," **Delaware Nation accepts your invitation for consultation on this project.**

Our office is committed to protecting tribal heritage, culture, and religion with particular concern for archaeological sites potentially containing burials and associated funerary objects. In order to meet the federal Section 106 requirements for us to thoroughly review and respond to your project within 30 days, our office must receive the following:

- Name of project
- Geographic coordinates of project
- County and State of project
- Description of ground disturbing work (especially depth of ground disturbance, and any notes on prior disturbance within the APE)
- Listing of any Historic Properties, primarily any known archaeological sites, within half a mile of the project
- Any supporting shapefiles, Google Earth files, or maps of the project APE (especially any noting proximity to existing archaeological sites)
- Responses from SHPO or other consulting federally recognized tribes (when received)
- Any existing Cultural/Archaeological Resource Survey Reports within APE and half mile of APE, and/or indicate if there are any plans for forthcoming surveys
  - (*please note*: we are not necessarily requesting a survey at this stage, we just want to know if there are already existing past survey reports and/or plans for new forthcoming surveys which can inform our review.)
- Principal Investigator Name for surveys (if applicable)

At the end of this letter, I have added our Section 106 Consultation Procedures and Cultural Resource Survey Report Standards for your convenience.

Please note that Delaware Nation, the Delaware Tribe of Indians, and the Stockbridge Munsee Community are the only Federally Recognized Delaware/Lenape entities in the United States and consultation for Lenape homelands must be made with only the designated staff of these three nations (and/or other federally recognized tribal nations who may have overlapping areas of interest). We appreciate your cooperation in contacting the Delaware Nation Historic Preservation Office to conduct proper Section 106 consultation. Should you have any questions, feel free to contact our offices at 405-247-2448 ext. 1403.

*Katelyn Lucas*

Katelyn Lucas  
Historic Preservation Assistant  
Delaware Nation  
405-544-8115



*Delaware Nation*  
**Tribal Historic Preservation Department**  
31064 State Highway 281  
Anadarko, OK 73005  
Phone (405)247-2448

[klucas@delawarenation-nsn.gov](mailto:klucas@delawarenation-nsn.gov)





***Delaware Nation***

**Tribal Historic Preservation Department**

31064 State Highway 281  
Anadarko, OK 73005  
Phone (405)247-2448

**Section 106 Consultation Procedures**

The Delaware Nation Historic Preservation Office has developed the following consultation procedures for all Section 106 projects identified as federal undertakings.

Please submit:

1. A 1-page cover letter with the following information:
  - a. Project Number (include on all correspondence)
  - b. Project Name, City, County, and State
  - c. Project Type
    - i. Explanation of ground disturbance
  - d. Geographic Coordinates in WGS84 Latitude and Longitude
  - e. Contact information including individual's name, address, phone, fax, and email
  - f. Principal Investigator for survey report including address, phone, fax, and email
2. Professional cultural/archaeological survey report including curriculum vitae for all archaeologists who conduct the field surveys and produce the cultural survey reports.
3. Aerial and/or color USGS topographic maps locating project area within a) state, b) county, and c) local area
4. Aerial, color USGS topographic, planimetric maps specifically locating
  - a. 0.5 or 1.0 mile APE study area
  - b. Location of archaeological and historic sites in the APE and in close proximity to the APE
5. Project site plan maps depicting labeled shovel test locations.



***Delaware Nation***

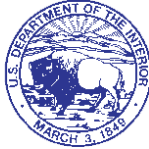
**Tribal Historic Preservation Department**

31064 State Highway 281  
Anadarko, OK 73005  
Phone (405)247-2448

**Cultural Resource Survey Report Standards**

Below are the requirements for a cultural resource survey report that will enable the Delaware Office of Historic Preservation to efficiently and effectively assess the proposed project. Please include in all reports:

1. Abstract
  - a. Brief summary of the project, survey results, and recommendations
2. Introduction
  - a. Introduce project and project design
3. Environmental Setting
  - a. Specific location, legal description, composition of project site
  - b. General location, geomorphology, landform, soils, vegetation, hydrology
4. Cultural History
  - a. Brief overview of cultural occupation represented in locale
5. File Search and Previous Research
  - a. Results of file search in state database for previously recorded archaeological sites and review of previous archaeological investigations
  - b. The file search should be for both below ground archaeological sites and above ground historic sites as some states have two repositories for this information (i.e. Tennessee)
6. Field Methods and Analytical Techniques
  - a. How field survey and analysis were conducted
7. Results of Archaeological Field Investigations
  - a. Review of finding and identification of National Register of Historic Places
8. Recommendations
  - a. Summarization of archaeological sites identified, NRHP determinations, and project recommendations
9. References Cited



## United States Department of the Interior

George Washington Memorial Parkway  
NATIONAL PARK SERVICE  
National Capital Region  
700 George Washington Memorial Parkway  
McLean, VA 22101

IN REPLY REFER TO:

November 4, 2022

Kenneth Branham, Chief  
Monacan Indian Nation  
Attn: Rufus Elliot  
P.O. Box 960  
Amherst, Virginia 24521

*Sent by email to [tribaloffice@monacannation.com](mailto:tribaloffice@monacannation.com), [tribaladmin@monacannation.com](mailto:tribaladmin@monacannation.com)*

Re: Initiation of Section 106 Consultation, George Washington Memorial Parkway South Section and Mount Vernon Trail Improvement Plan / Environmental Assessment

Dear Chief Branham:

The National Park Service (NPS) is preparing a plan and corresponding Environmental Assessment (EA) to address deferred maintenance needs and safety along the southern portion of the George Washington Memorial Parkway (GW Parkway) and the entirety of the Mount Vernon Trail (MVT). The NPS understands the Monacan Indian Nation to have interest in the preservation of Native American cultural resources of significance in this region and is writing to formally initiate consultation in compliance with Section 106 of the National Historic Preservation Act (NHPA) (54 U.S.C. § 306108) and its implementing regulations (36 CFR § 800).

### Description of the Undertaking

The plan would address deferred maintenance and improve safety on the south section of the GW Parkway—between the City of Alexandria and Mount Vernon in Virginia—and the majority of the MVT, extending from Theodore Roosevelt Island and the intersection with the Custis Trail in Arlington, Virginia, to Mount Vernon (the portion of the MVT and GW Parkway under the jurisdiction of the City of Alexandria would not be part of this planning exercise). The project would develop context sensitive solutions that improve these resources while maintaining the GW Parkway's scenic and historic character. Safety enhancements may include potential geometric changes to both the road and trail, such as trail and trail bridge widening; trail intersection treatments; permanent implementation of a road diet on the GW Parkway; and the installation of signals, crosswalks, and other roadway intersection treatments.

The GW Parkway was established by Congress on May 29, 1930. It is a scenic roadway that runs along the Potomac River through Virginia, the District of Columbia, and Maryland, protecting the landscape and natural and cultural resources along the shoreline of the river while offering magnificent scenic vistas from Mount Vernon to Great Falls. It is part of the comprehensive system of parks, parkways, and recreational areas surrounding the nation's capital and honors the nation's first president. The GW Parkway was listed in the National Register of Historic Places (NRHP) in 1995.



The southern portion of the GW Parkway, originally known as Mount Vernon Memorial Highway (MVMH), was under construction from 1929 to 1932, becoming part of the GW Parkway with its authorization in 1930. The MVMH extends 15.2 miles along the Potomac River from Arlington Memorial Bridge in Washington, DC to George Washington's historic home at Mount Vernon in Virginia. The MVMH was listed in the NRHP in 1981. For the purposes of this undertaking, the southern portion refers to the 8.5-mile stretch extending south from the north bank of Hunting Creek to the terminus at Mount Vernon.

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Considerations of climate change, coastal hazards, and stormwater management will also influence the proposed alternatives. Two tributary streams (Hunting Creek, Little Hunting Creek) and a sizable marsh area are located at the southern portion of the Parkway. The Parkway and MVT bisect various segments of the marsh, and the streams flow under the Parkway and trail to the main river channel. A Coastal Hazards & Climate Change Asset Vulnerability Assessment was completed for the GW Parkway lands in 2017. In these areas, the Parkway, trail, and trail bridges are recognized as vulnerable resources due to floods, storm surge, and sea-level rise along the Potomac River. Stormwater management strategies and planning for resilient infrastructure are essential design considerations.

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- DC State Historic Preservation Office
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- Commission of Fine Arts
- Virginia Department of Transportation
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- Fairfax County Park Authority
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- City of Alexandria Transportation and Environmental Services
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- Arlington County Parks and Recreation
- Office of Dan Storck, Mount Vernon Supervisor
- George Washington's Mount Vernon (Mount Vernon Ladies Association)
- Friends of Dyke Marsh
- Friends of the Mount Vernon Trail
- Pamunkey Indian Tribe
- Upper Mattaponi Indian Tribe
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- Nansemond Indian Nation
- Chickahominy Indian Tribe
- Chickahominy Indian Tribe Eastern Division
- Monacan Indian Nation
- Catawba Indian Nation
- Delaware Nation

- Absentee Shawnee Tribe of Indians of Oklahoma
- Shawnee Tribe

We look forward to beginning the Section 106 consultation process for this project. If you have any questions or preliminary feedback related to the project and invited consulting parties please contact Matt Virta, Cultural Resources Program Manager for the GW Parkway, at [matthew\\_virta@nps.gov](mailto:matthew_virta@nps.gov).

Sincerely,

Charles Cuvelier  
Date: 2022.11.15 12:57:12 -05'00'

Charles Cuvelier  
Superintendent

Attachments: Attachment A – Draft Area of Potential Effect

**Fw: [EXTERNAL] Re: FW: GWMP South Section & Mount Vernon Trail Improvement Plan Section 106 Consultation**

Morales, Brendaliz <brendaliz\_morales@nps.gov>

Mon 8/7/2023 1:27 PM

To: Joseph, Maureen <Maureen\_Joseph@nps.gov>; Bailey, Megan M <megan\_bailey@nps.gov>

Please see below.

---

**From:** Kaleigh Pollak <kaleigh.monacan@gmail.com>

**Sent:** Monday, August 7, 2023 9:03 AM

**To:** Morales, Brendaliz <brendaliz\_morales@nps.gov>

**Subject:** [EXTERNAL] Re: FW: GWMP South Section & Mount Vernon Trail Improvement Plan Section 106 Consultation

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Good Morning,

Thank you for contacting us about the proposed project. The Monacan Indian Nation is a federally recognized sovereign tribe, headquartered on Bear Mountain in Amherst County. Citizens of the Nation are descended from Virginia and North Carolina Eastern Siouan cultural and linguistic groups, and our ancestral territory includes Virginia west of the fall line of the rivers, sections of southeastern West Virginia, and portions of northern North Carolina. At this time, the active Monacan consultation areas include:

**Virginia:** Albemarle, Alleghany, Amherst, Appomattox, Augusta, Bath, Bedford, Bland, Buchanan, Buckingham, Campbell, Carroll, Charlotte, Clarke, Craig, Culpepper, Cumberland, Dickenson, Floyd, Fluvanna, Franklin, Frederick, Giles, Goochland, Grayson, Greene, Halifax, Henry, Highland, Lee, Loudoun, Louisa, Madison, Mecklenburg, Montgomery, Nelson, Orange, Page, Patrick, Pittsylvania, Powhatan, Prince Edward, Pulaski, Rappahannock, Roanoke, Rockbridge, Rockingham, Russell, Scott, Shenandoah, Smyth, Tazewell, Warren, Washington, Wise, and Wythe Counties, and all contiguous cities.

**West Virginia:** Greenbrier, Mercer, Monroe, Pendleton, Pocahontas, and Summers Counties.

**North Carolina:** Alamance, Caswell, Granville, Orange, Person, Rockingham, Vance, and Warren Counties.

At this time, the Nation does not wish to actively participate in this consultation project, because:

This project is outside our ancestral territory

X	The project's impacts are anticipated to be minimal
	The project is more closely related to _____, which should be contacted to participate in consultation
	The tribal office does not currently have the capacity to participate in this project
	Other:

However, the Nation requests to be contacted if:

- Sites associated with native history may be impacted by this project;
- Adverse effects associated with this project are identified;
- Human remains are encountered during this project;
- Unanticipated native cultural remains are encountered during this project;
- Other tribes consulting on this project cease consultation; or
- The project size or scope becomes larger or more potentially destructive than currently described.

Please do not make any assumptions about future consultation interests based on this decision, as priorities and information may change. We request that you send any future consultation communications in electronic form to [Consultation@MonacanNation.com](mailto:Consultation@MonacanNation.com). We appreciate your outreach to the Monacan Indian Nation and look forward to working with you in the future.

Kaleigh Pollak

On Wed, Jul 26, 2023 at 11:30 AM Tribal Office <[TribalOffice@monacannation.com](mailto:TribalOffice@monacannation.com)> wrote:

Thank you,

*Amie Parra*

**Administrative Assistant**

Monacan Indian Nation

O: (434) 363-4864

D: (434) 300-5054

111 Highview Drive

Madison Heights, VA 24572



## NOTICE OF CONFIDENTIALITY

This e-mail message and its attachments (if any) are intended solely for the use of the addressee hereof. In addition, this message and the attachments (if any) may contain information that is confidential, privileged and exempt from disclosure under applicable law. Unless you are the addressee (or authorized to receive for the addressee), you are prohibited from reading, disclosing, reproducing, distributing, disseminating or otherwise using this transmission. Delivery of this message to any person other than the intended recipient is not intended to waive any right or privilege. If you have received this message in error, please promptly notify the sender by reply e-mail and immediately delete this message from your system. Thank you.

**From:** Morales, Brendaliz <[brendaliz\\_morales@nps.gov](mailto:brendaliz_morales@nps.gov)> **On Behalf Of** GWMP Superintendent, NPS

**Sent:** Wednesday, July 26, 2023 10:29 AM

**To:** [julie.langan@dhr.virginia.gov](mailto:julie.langan@dhr.virginia.gov); [roger.kirchen@dhr.virginia.gov](mailto:roger.kirchen@dhr.virginia.gov); Connolly, Jonathan (DHR) <[jonathan.connolly@dhr.virginia.gov](mailto:jonathan.connolly@dhr.virginia.gov)>; [david.maloney@dc.gov](mailto:david.maloney@dc.gov); Lewis, Andrew (OP) <[andrew.lewis@dc.gov](mailto:andrew.lewis@dc.gov)>; Trocolli, Ruth (OP) <[ruth.trocolli@dc.gov](mailto:ruth.trocolli@dc.gov)>; [diane.sullivan@ncpc.gov](mailto:diane.sullivan@ncpc.gov); [matthew.flis@ncpc.gov](mailto:matthew.flis@ncpc.gov); [tluebke@cfa.gov](mailto:tluebke@cfa.gov); [stephen.brich@vdot.virginia.gov](mailto:stephen.brich@vdot.virginia.gov); [sharon.kershbaum@dc.gov](mailto:sharon.kershbaum@dc.gov); [DOTInfo@fairfaxcounty.gov](mailto:DOTInfo@fairfaxcounty.gov); [parkmail@fairfaxcounty.gov](mailto:parkmail@fairfaxcounty.gov); [karl.moritz@alexandriava.gov](mailto:karl.moritz@alexandriava.gov); [yon.lambert@alexandriava.gov](mailto:yon.lambert@alexandriava.gov); [des@arlingtonva.us](mailto:des@arlingtonva.us); [dpr@arlingtonva.us](mailto:dpr@arlingtonva.us); [mt.vernondistrictbos@fairfaxcounty.gov](mailto:mt.vernondistrictbos@fairfaxcounty.gov); [boardsecretary@mountvernon.org](mailto:boardsecretary@mountvernon.org); [info@fodm.org](mailto:info@fodm.org); [mtvernontrail@gmail.com](mailto:mtvernontrail@gmail.com); [vira.sisolak01@gmail.com](mailto:vira.sisolak01@gmail.com); Dressel, Denice <[denice.dressel@fairfaxcounty.gov](mailto:denice.dressel@fairfaxcounty.gov)>; Mvcca <[co.chair1@mvcca.org](mailto:co.chair1@mvcca.org)>; Simon, Noah <[noah.simon@mail.house.gov](mailto:noah.simon@mail.house.gov)>; [splein@eqjinoxinvestmentsllc.com](mailto:splein@eqjinoxinvestmentsllc.com); Robert Gray <[robert.gray@pamunkey.org](mailto:robert.gray@pamunkey.org)>; Pamunkey Tribe <[pamunkeytribe@pamunkey.org](mailto:pamunkeytribe@pamunkey.org)>; [info@umitribe.org](mailto:info@umitribe.org); [wfrankadams@verizon.net](mailto:wfrankadams@verizon.net); Upper Mattaponi <[admin@umitribe.org](mailto:admin@umitribe.org)>; [chiefannerich@aol.com](mailto:chiefannerich@aol.com); [rappahannocktrib@aol.com](mailto:rappahannocktrib@aol.com); Chief Nansemond <[Chief@nansemond.org](mailto:Chief@nansemond.org)>; [ellen@culturalheritagepartners.com](mailto:ellen@culturalheritagepartners.com); [chiefstephenadkins@gmail.com](mailto:chiefstephenadkins@gmail.com); [Stephenradkins@aol.com](mailto:Stephenradkins@aol.com); [dana.adkins@chickahominytribe.org](mailto:dana.adkins@chickahominytribe.org); [wasandson@cox.net](mailto:wasandson@cox.net); Tribal Office <[TribalOffice@monacannation.com](mailto:TribalOffice@monacannation.com)>; Monacan Nation <[Mnation538@aol.com](mailto:Mnation538@aol.com)>; Adrian Compton <[TribalAdmin@monacannation.com](mailto:TribalAdmin@monacannation.com)>; Bill Harris <[bill.harris@catawbaianindian.net](mailto:bill.harris@catawbaianindian.net)>; Wenonah Haire <[wenonah.haire@catawba.com](mailto:wenonah.haire@catawba.com)>; Klucas <[klucas@delawarenation-nsn.gov](mailto:klucas@delawarenation-nsn.gov)>; ddotson <[ddotson@delawarenation-nsn.gov](mailto:ddotson@delawarenation-nsn.gov)>; [106NAGPRA@astribe.com](mailto:106NAGPRA@astribe.com); [jjohnson@astribe.com](mailto:jjohnson@astribe.com); [tonya@shawnee-tribe.com](mailto:tonya@shawnee-tribe.com); Benjamin Barnes <[chief@shawnee-tribe.com](mailto:chief@shawnee-tribe.com)>

**Cc:** Joseph, Maureen <[Maureen\\_Joseph@nps.gov](mailto:Maureen_Joseph@nps.gov)>; Bailey, Megan M <[megan\\_bailey@nps.gov](mailto:megan_bailey@nps.gov)>; Gorder, Joel S <[Joel\\_Gorder@nps.gov](mailto:Joel_Gorder@nps.gov)>; Theuer, Jason <[Jason\\_Theuer@nps.gov](mailto:Jason_Theuer@nps.gov)>; Schrader, Brett <[brett.schrader@stantec.com](mailto:brett.schrader@stantec.com)>; Bouchard, Suzanne N <[suzanne\\_bouchard@nps.gov](mailto:suzanne_bouchard@nps.gov)>; Mocko, Robert <[Robert\\_Mocko@nps.gov](mailto:Robert_Mocko@nps.gov)>; Katie Hummelt <[khummelt@bbbarch.com](mailto:khummelt@bbbarch.com)>; Lucy Moore <[lmoore@bbbarch.com](mailto:lmoore@bbbarch.com)>; Stidham, Tammy <[Tammy\\_Stidham@nps.gov](mailto:Tammy_Stidham@nps.gov)>; Tamburro, Sam <[Sam\\_Tamburro@nps.gov](mailto:Sam_Tamburro@nps.gov)>; McGilvray, Julie D <[Julie\\_McGilvray@nps.gov](mailto:Julie_McGilvray@nps.gov)>; Smith, Christine M <[Christine\\_Smith@nps.gov](mailto:Christine_Smith@nps.gov)>; Bruins, Christine A <[Christine\\_Bruins@nps.gov](mailto:Christine_Bruins@nps.gov)>

**Subject:** GWMP South Section & Mount Vernon Trail Improvement Plan Section 106 Consultation

Dear Consulting Parties,

As you are aware, the National Park Service (NPS) is developing a George Washington Memorial Parkway South Section and Mount Vernon Trail Improvements Plan to guide future actions to improve the roadway and trail while maintaining the scenic and historic character of the George Washington Memorial Parkway. In November 2022, NPS initiated the consultation process pursuant to Section 106 of the National Historic Preservation Act. Consulting parties received a description of the undertaking, a draft Area of Potential Effects (APE), and a list of historic properties within the APE.

Since initiating consultation, NPS has further defined the undertaking and assessed potential effects to cultural resources, which are discussed in an Assessment of Effects (AOE) Report. The purpose of this correspondence is to notify consulting parties that the AOE Report is complete and available to view and download [here](#). Please review the report and submit comments within 30 days of receipt of this letter.

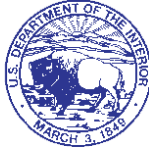
A consulting parties meeting has been scheduled during the 30-day review period to discuss the Improvement Plan and the AOE report. You should have received an invitation to attend this virtual meeting, which will take place on Wednesday, August 9, 1:00-2:30pm. Please contact NPS if you have not received an invitation.

If you have any questions or comments regarding this project, please contact me at [gwp\\_superintendent@nps.gov](mailto:gwp_superintendent@nps.gov) and cc Cultural Resources Program Manager Megan Bailey ([megan\\_bailey@nps.gov](mailto:megan_bailey@nps.gov)). We appreciate your continued involvement in the GWMP South Section & Mount Vernon Trail Improvement Plan.

Sincerely,

Superintendent  
George Washington Memorial Parkway





## United States Department of the Interior

George Washington Memorial Parkway  
NATIONAL PARK SERVICE  
National Capital Region  
700 George Washington Memorial Parkway  
McLean, VA 22101

IN REPLY REFER TO:

November 4, 2022

Earl Bass, Chief  
Nansemond Indian Tribe  
Attn: Megan Bass  
1001 Pembroke Lane  
Suffolk, Virginia 23434

*Sent by email to [chief@nansemond.org](mailto:chief@nansemond.org), [administrator@nansemond.org](mailto:administrator@nansemond.org)*

Re: Initiation of Section 106 Consultation, George Washington Memorial Parkway South Section and Mount Vernon Trail Improvement Plan / Environmental Assessment

Dear Chief Bass:

The National Park Service (NPS) is preparing a plan and corresponding Environmental Assessment (EA) to address deferred maintenance needs and safety along the southern portion of the George Washington Memorial Parkway (GW Parkway) and the entirety of the Mount Vernon Trail (MVT). The NPS understands the Nansemond Indian Tribe to have interest in the preservation of Native American cultural resources of significance in this region and is writing to formally initiate consultation in compliance with Section 106 of the National Historic Preservation Act (NHPA) (54 U.S.C. § 306108) and its implementing regulations (36 CFR § 800).

### Description of the Undertaking

The plan would address deferred maintenance and improve safety on the south section of the GW Parkway—between the City of Alexandria and Mount Vernon in Virginia—and the majority of the MVT, extending from Theodore Roosevelt Island and the intersection with the Custis Trail in Arlington, Virginia, to Mount Vernon (the portion of the MVT and GW Parkway under the jurisdiction of the City of Alexandria would not be part of this planning exercise). The project would develop context sensitive solutions that improve these resources while maintaining the GW Parkway's scenic and historic character. Safety enhancements may include potential geometric changes to both the road and trail, such as trail and trail bridge widening; trail intersection treatments; permanent implementation of a road diet on the GW Parkway; and the installation of signals, crosswalks, and other roadway intersection treatments.

The GW Parkway was established by Congress on May 29, 1930. It is a scenic roadway that runs along the Potomac River through Virginia, the District of Columbia, and Maryland, protecting the landscape and natural and cultural resources along the shoreline of the river while offering magnificent scenic vistas from Mount Vernon to Great Falls. It is part of the comprehensive system of parks, parkways, and recreational areas surrounding the nation's capital and honors the nation's first president. The GW Parkway was listed in the National Register of Historic Places (NRHP) in 1995.

The southern portion of the GW Parkway, originally known as Mount Vernon Memorial Highway (MVMH), was under construction from 1929 to 1932, becoming part of the GW Parkway with its authorization in 1930. The MVMH extends 15.2 miles along the Potomac River from Arlington Memorial Bridge in Washington, DC to George Washington's historic home at Mount Vernon in Virginia. The MVMH was listed in the NRHP in 1981. For the purposes of this undertaking, the southern portion refers to the 8.5-mile stretch extending south from the north bank of Hunting Creek to the terminus at Mount Vernon.

The plan is needed to help preserve the historic parkway for future generations, improve the visitor experience, reduce annual park operations and maintenance costs, and improve visitor safety. The 2020 Safety Assessment prepared for the southern portion of the GW Parkway analyzed data from 389 crashes documented since 2005 (2005-2015; 2018-2019). Additionally, the pavement at the southern portion consists of reinforced concrete, which has been rated as being in overall "fair" condition. However, there are segments that are in poor condition, featuring deteriorated joints and undermined areas where holes of one foot or deeper are present.

There is also a need to address conditions along the MVT – an 18-mile paved multi-use trail that is one of the most heavily used multi-use trails in the country. It is a popular recreation resource and critical regional transportation link that hosts over one million pedestrians and bicyclists annually. The trail is relatively narrow by modern standards, and is characterized by meandering curves, timber bridges, and dense vegetation in some areas that lead to safety concerns. Such concerns, coupled with growing usage of the trail contributes to crowding, user conflicts, and crashes. Aside from providing site specific safety improvements, the plan seeks to address the deterioration and inadequacy of the pavement surfaces, shoulders, bridges, trail tread (condition and width), trail alignment, drainage, signage, and trailhead features (i.e., benches, drinking fountains, bike racks, etc.). The NPS originally constructed the MVT in the 1970s and 1980s, and although it is not listed as a historic resource, it is located within the GW Parkway Historic District boundaries and was identified as a contributing circulation feature due to its association with no longer extant foot trails and bridle paths in the MVMH North Cultural Landscapes Inventory (CLI). The VA SHPO concurred with the findings of the CLI, which serves as a consensus determination of eligibility on September 20, 2022. Therefore, the MVT is being considered NRHP-eligible for purposes of this undertaking.

The plan for safety improvements and addressing deferred maintenance would be informed by the recently completed GW Parkway Traffic and Safety Context Sensitive Solutions Assessment, the MVT Corridor Study, the project scoping assessment (PSA) for the MVT, as well as the Cultural Landscape Reports (CLR) and the Cultural Landscape Inventories (CLI) as baseline documents in evaluating alternatives.

Considerations of climate change, coastal hazards, and stormwater management will also influence the proposed alternatives. Two tributary streams (Hunting Creek, Little Hunting Creek) and a sizable marsh area are located at the southern portion of the Parkway. The Parkway and MVT bisect various segments of the marsh, and the streams flow under the Parkway and trail to the main river channel. A Coastal Hazards & Climate Change Asset Vulnerability Assessment was completed for the GW Parkway lands in 2017. In these areas, the Parkway, trail, and trail bridges are recognized as vulnerable resources due to floods, storm surge, and sea-level rise along the Potomac River. Stormwater management strategies and planning for resilient infrastructure are essential design considerations.

#### Section 106 Consultation and NEPA Coordination

In accordance with the Section 106 implementing regulations issued by the Advisory Council on Historic Preservation (36 CFR part 800), NPS will coordinate Section 106 consultation and ensure the meaningful involvement of all consulting parties while working to identify an Area of Potential Effect (APE) and

historic properties within the APE. Later, continued consultation will work to seek agreement on the determination of effect to historic properties and whether any potential adverse effects to historic properties might be avoided, minimized, or mitigated.

The NPS will prepare an EA to document the analysis of potential impacts of the proposed plan in accordance with the National Environmental Policy Act (NEPA). The NPS plans to coordinate the Section 106 and NEPA processes per the implementing regulations (36 CFR § 800.8) of the NHPA. The NPS will also develop an Assessment of Effect for this project as a separate, but parallel, process to the EA.

#### Area of Potential Effect and Historic Properties

NPS has developed a graphic illustration of the draft APE that is subject to modification through the consultation process. The draft APE for direct and indirect effects includes areas immediately adjacent to the MVT and the southern portion of the GW parkway as well as areas that may be used for construction staging or may experience a visual change from the undertaking. The draft APE consists of the area within the southernmost boundary of the GW Parkway (from Mount Vernon to the City of Alexandria) and a narrower portion of GW Parkway boundary, north of the City of Alexandria. The draft APE includes the western portion of Theodore Roosevelt Island to consider any potential visual effects that may occur to that section of the MVT.

The boundaries of the draft APE overlap with several boundaries of historic properties, including the north section of the GW Parkway (listed as the George Washington Memorial Parkway) and the south section of the GW Parkway (listed as the MVMH). Other historic properties within the draft APE are the Theodore Roosevelt Island National Memorial, Arlington Memorial Bridge, Washington National Airport Terminal, Fort Hunt, and Mount Vernon. The draft APE also includes areas that have the potential to uncover archaeological resources.

#### Consulting Party Outreach

In accordance with 36 CFR Part 800.2(c), NPS identified parties that may be interested in the proposed plan for the southern portion of the GW Parkway and the MVT and its effect on historic properties. The following organizations will be invited to participate as Section 106 consulting parties:

- Virginia Department of Historic Resources (Virginia State Historic Preservation Office)
- DC State Historic Preservation Office
- National Capital Planning Commission
- Commission of Fine Arts
- Virginia Department of Transportation
- Fairfax County Department of Transportation
- Fairfax County Park Authority
- City of Alexandria Department of Planning and Zoning
- City of Alexandria Transportation and Environmental Services
- Arlington County Department of Environmental Services
- Arlington County Parks and Recreation
- Office of Dan Storck, Mount Vernon Supervisor
- George Washington's Mount Vernon (Mount Vernon Ladies Association)
- Friends of Dyke Marsh
- Friends of the Mount Vernon Trail
- Pamunkey Indian Tribe
- Upper Mattaponi Indian Tribe
- Rappahannock Tribe
- Nansemond Indian Nation
- Chickahominy Indian Tribe
- Chickahominy Indian Tribe Eastern Division
- Monacan Indian Nation
- Catawba Indian Nation
- Delaware Nation

- Absentee Shawnee Tribe of Indians of Oklahoma
- Shawnee Tribe

We look forward to beginning the Section 106 consultation process for this project. If you have any questions or preliminary feedback related to the project and invited consulting parties please contact Matt Virta, Cultural Resources Program Manager for the GW Parkway, at [matthew\\_virta@nps.gov](mailto:matthew_virta@nps.gov).

Sincerely,

**Charles** Date:  
2022.11.15  
**Cuvelier** 12:56:46  
-05'00"

Charles Cuvelier  
Superintendent

Attachments: Attachment A – Draft Area of Potential Effect



## United States Department of the Interior

George Washington Memorial Parkway  
NATIONAL PARK SERVICE  
National Capital Region  
700 George Washington Memorial Parkway  
McLean, VA 22101

IN REPLY REFER TO:

November 4, 2022

Robert Gray, Chief  
Pamunkey Indian Tribe  
1054 Pocahontas Trail  
King William, Virginia 23086  
*Sent by email to [robert.gray@pamunkey.org](mailto:robert.gray@pamunkey.org)*

Re: Initiation of Section 106 Consultation, George Washington Memorial Parkway South Section and Mount Vernon Trail Improvement Plan / Environmental Assessment

Dear Chief Gray:

The National Park Service (NPS) is preparing a plan and corresponding Environmental Assessment (EA) to address deferred maintenance needs and safety along the southern portion of the George Washington Memorial Parkway (GW Parkway) and the entirety of the Mount Vernon Trail (MVT). The NPS understands the Pamunkey Indian Tribe to have interest in the preservation of Native American cultural resources of significance in this region and is writing to formally initiate consultation in compliance with Section 106 of the National Historic Preservation Act (NHPA) (54 U.S.C. § 306108) and its implementing regulations (36 CFR § 800).

### Description of the Undertaking

The plan would address deferred maintenance and improve safety on the south section of the GW Parkway—between the City of Alexandria and Mount Vernon in Virginia—and the majority of the MVT, extending from Theodore Roosevelt Island and the intersection with the Custis Trail in Arlington, Virginia, to Mount Vernon (the portion of the MVT and GW Parkway under the jurisdiction of the City of Alexandria would not be part of this planning exercise). The project would develop context sensitive solutions that improve these resources while maintaining the GW Parkway's scenic and historic character. Safety enhancements may include potential geometric changes to both the road and trail, such as trail and trail bridge widening; trail intersection treatments; permanent implementation of a road diet on the GW Parkway; and the installation of signals, crosswalks, and other roadway intersection treatments.

The GW Parkway was established by Congress on May 29, 1930. It is a scenic roadway that runs along the Potomac River through Virginia, the District of Columbia, and Maryland, protecting the landscape and natural and cultural resources along the shoreline of the river while offering magnificent scenic vistas from Mount Vernon to Great Falls. It is part of the comprehensive system of parks, parkways, and recreational areas surrounding the nation's capital and honors the nation's first president. The GW Parkway was listed in the National Register of Historic Places (NRHP) in 1995.

The southern portion of the GW Parkway, originally known as Mount Vernon Memorial Highway (MVMH), was under construction from 1929 to 1932, becoming part of the GW Parkway with its authorization in 1930. The MVMH extends 15.2 miles along the Potomac River from Arlington Memorial Bridge in Washington, DC to George Washington's historic home at Mount Vernon in Virginia. The MVMH was listed in the NRHP in 1981. For the purposes of this undertaking, the southern portion refers to the 8.5-mile stretch extending south from the north bank of Hunting Creek to the terminus at Mount Vernon.

The plan is needed to help preserve the historic parkway for future generations, improve the visitor experience, reduce annual park operations and maintenance costs, and improve visitor safety. The 2020 Safety Assessment prepared for the southern portion of the GW Parkway analyzed data from 389 crashes documented since 2005 (2005-2015; 2018-2019). Additionally, the pavement at the southern portion consists of reinforced concrete, which has been rated as being in overall "fair" condition. However, there are segments that are in poor condition, featuring deteriorated joints and undermined areas where holes of one foot or deeper are present.

There is also a need to address conditions along the MVT – an 18-mile paved multi-use trail that is one of the most heavily used multi-use trails in the country. It is a popular recreation resource and critical regional transportation link that hosts over one million pedestrians and bicyclists annually. The trail is relatively narrow by modern standards, and is characterized by meandering curves, timber bridges, and dense vegetation in some areas that lead to safety concerns. Such concerns, coupled with growing usage of the trail contributes to crowding, user conflicts, and crashes. Aside from providing site specific safety improvements, the plan seeks to address the deterioration and inadequacy of the pavement surfaces, shoulders, bridges, trail tread (condition and width), trail alignment, drainage, signage, and trailhead features (i.e., benches, drinking fountains, bike racks, etc.). The NPS originally constructed the MVT in the 1970s and 1980s, and although it is not listed as a historic resource, it is located within the GW Parkway Historic District boundaries and was identified as a contributing circulation feature due to its association with no longer extant foot trails and bridle paths in the MVMH North Cultural Landscapes Inventory (CLI). The VA SHPO concurred with the findings of the CLI, which serves as a consensus determination of eligibility on September 20, 2022. Therefore, the MVT is being considered NRHP-eligible for purposes of this undertaking.

The plan for safety improvements and addressing deferred maintenance would be informed by the recently completed GW Parkway Traffic and Safety Context Sensitive Solutions Assessment, the MVT Corridor Study, the project scoping assessment (PSA) for the MVT, as well as the Cultural Landscape Reports (CLR) and the Cultural Landscape Inventories (CLI) as baseline documents in evaluating alternatives.

Considerations of climate change, coastal hazards, and stormwater management will also influence the proposed alternatives. Two tributary streams (Hunting Creek, Little Hunting Creek) and a sizable marsh area are located at the southern portion of the Parkway. The Parkway and MVT bisect various segments of the marsh, and the streams flow under the Parkway and trail to the main river channel. A Coastal Hazards & Climate Change Asset Vulnerability Assessment was completed for the GW Parkway lands in 2017. In these areas, the Parkway, trail, and trail bridges are recognized as vulnerable resources due to floods, storm surge, and sea-level rise along the Potomac River. Stormwater management strategies and planning for resilient infrastructure are essential design considerations.

#### Section 106 Consultation and NEPA Coordination

In accordance with the Section 106 implementing regulations issued by the Advisory Council on Historic Preservation (36 CFR part 800), NPS will coordinate Section 106 consultation and ensure the meaningful involvement of all consulting parties while working to identify an Area of Potential Effect (APE) and

historic properties within the APE. Later, continued consultation will work to seek agreement on the determination of effect to historic properties and whether any potential adverse effects to historic properties might be avoided, minimized, or mitigated.

The NPS will prepare an EA to document the analysis of potential impacts of the proposed plan in accordance with the National Environmental Policy Act (NEPA). The NPS plans to coordinate the Section 106 and NEPA processes per the implementing regulations (36 CFR § 800.8) of the NHPA. The NPS will also develop an Assessment of Effect for this project as a separate, but parallel, process to the EA.

#### Area of Potential Effect and Historic Properties

NPS has developed a graphic illustration of the draft APE that is subject to modification through the consultation process. The draft APE for direct and indirect effects includes areas immediately adjacent to the MVT and the southern portion of the GW parkway as well as areas that may be used for construction staging or may experience a visual change from the undertaking. The draft APE consists of the area within the southernmost boundary of the GW Parkway (from Mount Vernon to the City of Alexandria) and a narrower portion of GW Parkway boundary, north of the City of Alexandria. The draft APE includes the western portion of Theodore Roosevelt Island to consider any potential visual effects that may occur to that section of the MVT.

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#### Consulting Party Outreach

In accordance with 36 CFR Part 800.2(c), NPS identified parties that may be interested in the proposed plan for the southern portion of the GW Parkway and the MVT and its effect on historic properties. The following organizations will be invited to participate as Section 106 consulting parties:

- Virginia Department of Historic Resources (Virginia State Historic Preservation Office)
- DC State Historic Preservation Office
- National Capital Planning Commission
- Commission of Fine Arts
- Virginia Department of Transportation
- Fairfax County Department of Transportation
- Fairfax County Park Authority
- City of Alexandria Department of Planning and Zoning
- City of Alexandria Transportation and Environmental Services
- Arlington County Department of Environmental Services
- Arlington County Parks and Recreation
- Office of Dan Storck, Mount Vernon Supervisor
- George Washington's Mount Vernon (Mount Vernon Ladies Association)
- Friends of Dyke Marsh
- Friends of the Mount Vernon Trail
- Pamunkey Indian Tribe
- Upper Mattaponi Indian Tribe
- Rappahannock Tribe
- Nansemond Indian Nation
- Chickahominy Indian Tribe
- Chickahominy Indian Tribe Eastern Division
- Monacan Indian Nation
- Catawba Indian Nation
- Delaware Nation



- Absentee Shawnee Tribe of Indians of Oklahoma
- Shawnee Tribe

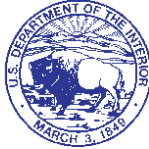
We look forward to beginning the Section 106 consultation process for this project. If you have any questions or preliminary feedback related to the project and invited consulting parties please contact Matt Virta, Cultural Resources Program Manager for the GW Parkway, at [matthew\\_virta@nps.gov](mailto:matthew_virta@nps.gov).

Sincerely,

**Charles** Date:  
2022.11.15  
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Charles Cuvelier  
Superintendent

Attachments: Attachment A – Draft Area of Potential Effect



## United States Department of the Interior

George Washington Memorial Parkway  
NATIONAL PARK SERVICE  
National Capital Region  
700 George Washington Memorial Parkway  
McLean, VA 22101

IN REPLY REFER TO:

November 4, 2022

Anne Richardson, Chief  
Rappahannock Tribe  
5036 Indian Neck Road  
Indian Neck, Virginia 23148  
*Sent by email to [chiefannerich@aol.com](mailto:chiefannerich@aol.com)*

Re: Initiation of Section 106 Consultation, George Washington Memorial Parkway South Section and Mount Vernon Trail Improvement Plan / Environmental Assessment

Dear Chief Richardson:

The National Park Service (NPS) is preparing a plan and corresponding Environmental Assessment (EA) to address deferred maintenance needs and safety along the southern portion of the George Washington Memorial Parkway (GW Parkway) and the entirety of the Mount Vernon Trail (MVT). The NPS understands the Rappahannock Tribe to have interest in the preservation of Native American cultural resources of significance in this region and is writing to formally initiate consultation in compliance with Section 106 of the National Historic Preservation Act (NHPA) (54 U.S.C. § 306108) and its implementing regulations (36 CFR § 800).

### Description of the Undertaking

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The southern portion of the GW Parkway, originally known as Mount Vernon Memorial Highway (MVMH), was under construction from 1929 to 1932, becoming part of the GW Parkway with its authorization in 1930. The MVMH extends 15.2 miles along the Potomac River from Arlington Memorial Bridge in Washington, DC to George Washington's historic home at Mount Vernon in Virginia. The MVMH was listed in the NRHP in 1981. For the purposes of this undertaking, the southern portion refers to the 8.5-mile stretch extending south from the north bank of Hunting Creek to the terminus at Mount Vernon.

The plan is needed to help preserve the historic parkway for future generations, improve the visitor experience, reduce annual park operations and maintenance costs, and improve visitor safety. The 2020 Safety Assessment prepared for the southern portion of the GW Parkway analyzed data from 389 crashes documented since 2005 (2005-2015; 2018-2019). Additionally, the pavement at the southern portion consists of reinforced concrete, which has been rated as being in overall "fair" condition. However, there are segments that are in poor condition, featuring deteriorated joints and undermined areas where holes of one foot or deeper are present.

There is also a need to address conditions along the MVT – an 18-mile paved multi-use trail that is one of the most heavily used multi-use trails in the country. It is a popular recreation resource and critical regional transportation link that hosts over one million pedestrians and bicyclists annually. The trail is relatively narrow by modern standards, and is characterized by meandering curves, timber bridges, and dense vegetation in some areas that lead to safety concerns. Such concerns, coupled with growing usage of the trail contributes to crowding, user conflicts, and crashes. Aside from providing site specific safety improvements, the plan seeks to address the deterioration and inadequacy of the pavement surfaces, shoulders, bridges, trail tread (condition and width), trail alignment, drainage, signage, and trailhead features (i.e., benches, drinking fountains, bike racks, etc.). The NPS originally constructed the MVT in the 1970s and 1980s, and although it is not listed as a historic resource, it is located within the GW Parkway Historic District boundaries and was identified as a contributing circulation feature due to its association with no longer extant foot trails and bridle paths in the MVMH North Cultural Landscapes Inventory (CLI). The VA SHPO concurred with the findings of the CLI, which serves as a consensus determination of eligibility on September 20, 2022. Therefore, the MVT is being considered NRHP-eligible for purposes of this undertaking.

The plan for safety improvements and addressing deferred maintenance would be informed by the recently completed GW Parkway Traffic and Safety Context Sensitive Solutions Assessment, the MVT Corridor Study, the project scoping assessment (PSA) for the MVT, as well as the Cultural Landscape Reports (CLR) and the Cultural Landscape Inventories (CLI) as baseline documents in evaluating alternatives.

Considerations of climate change, coastal hazards, and stormwater management will also influence the proposed alternatives. Two tributary streams (Hunting Creek, Little Hunting Creek) and a sizable marsh area are located at the southern portion of the Parkway. The Parkway and MVT bisect various segments of the marsh, and the streams flow under the Parkway and trail to the main river channel. A Coastal Hazards & Climate Change Asset Vulnerability Assessment was completed for the GW Parkway lands in 2017. In these areas, the Parkway, trail, and trail bridges are recognized as vulnerable resources due to floods, storm surge, and sea-level rise along the Potomac River. Stormwater management strategies and planning for resilient infrastructure are essential design considerations.

#### Section 106 Consultation and NEPA Coordination

In accordance with the Section 106 implementing regulations issued by the Advisory Council on Historic Preservation (36 CFR part 800), NPS will coordinate Section 106 consultation and ensure the meaningful involvement of all consulting parties while working to identify an Area of Potential Effect (APE) and

historic properties within the APE. Later, continued consultation will work to seek agreement on the determination of effect to historic properties and whether any potential adverse effects to historic properties might be avoided, minimized, or mitigated.

The NPS will prepare an EA to document the analysis of potential impacts of the proposed plan in accordance with the National Environmental Policy Act (NEPA). The NPS plans to coordinate the Section 106 and NEPA processes per the implementing regulations (36 CFR § 800.8) of the NHPA. The NPS will also develop an Assessment of Effect for this project as a separate, but parallel, process to the EA.

#### Area of Potential Effect and Historic Properties

NPS has developed a graphic illustration of the draft APE that is subject to modification through the consultation process. The draft APE for direct and indirect effects includes areas immediately adjacent to the MVT and the southern portion of the GW parkway as well as areas that may be used for construction staging or may experience a visual change from the undertaking. The draft APE consists of the area within the southernmost boundary of the GW Parkway (from Mount Vernon to the City of Alexandria) and a narrower portion of GW Parkway boundary, north of the City of Alexandria. The draft APE includes the western portion of Theodore Roosevelt Island to consider any potential visual effects that may occur to that section of the MVT.

The boundaries of the draft APE overlap with several boundaries of historic properties, including the north section of the GW Parkway (listed as the George Washington Memorial Parkway) and the south section of the GW Parkway (listed as the MVMH). Other historic properties within the draft APE are the Theodore Roosevelt Island National Memorial, Arlington Memorial Bridge, Washington National Airport Terminal, Fort Hunt, and Mount Vernon. The draft APE also includes areas that have the potential to uncover archaeological resources.

#### Consulting Party Outreach

In accordance with 36 CFR Part 800.2(c), NPS identified parties that may be interested in the proposed plan for the southern portion of the GW Parkway and the MVT and its effect on historic properties. The following organizations will be invited to participate as Section 106 consulting parties:

- Virginia Department of Historic Resources (Virginia State Historic Preservation Office)
- DC State Historic Preservation Office
- National Capital Planning Commission
- Commission of Fine Arts
- Virginia Department of Transportation
- Fairfax County Department of Transportation
- Fairfax County Park Authority
- City of Alexandria Department of Planning and Zoning
- City of Alexandria Transportation and Environmental Services
- Arlington County Department of Environmental Services
- Arlington County Parks and Recreation
- Office of Dan Storck, Mount Vernon Supervisor
- George Washington's Mount Vernon (Mount Vernon Ladies Association)
- Friends of Dyke Marsh
- Friends of the Mount Vernon Trail
- Pamunkey Indian Tribe
- Upper Mattaponi Indian Tribe
- Rappahannock Tribe
- Nansemond Indian Nation
- Chickahominy Indian Tribe
- Chickahominy Indian Tribe Eastern Division
- Monacan Indian Nation
- Catawba Indian Nation
- Delaware Nation

- Absentee Shawnee Tribe of Indians of Oklahoma

- Shawnee Tribe

We look forward to beginning the Section 106 consultation process for this project. If you have any questions or preliminary feedback related to the project and invited consulting parties please contact Matt Virta, Cultural Resources Program Manager for the GW Parkway, at [matthew\\_virta@nps.gov](mailto:matthew_virta@nps.gov).

Sincerely,

Charles Cuvelier Date:  
2022.11.15  
12:55:21 -05'00'

Charles Cuvelier  
Superintendent

Attachments: Attachment A – Draft Area of Potential Effect



## United States Department of the Interior

George Washington Memorial Parkway  
NATIONAL PARK SERVICE  
National Capital Region  
700 George Washington Memorial Parkway  
McLean, VA 22101

IN REPLY REFER TO:

November 4, 2022

Benjamin Barnes, Chief  
Shawnee Tribe  
Attn: Tonya Tipton  
29 South Highway 69 A  
Miami, Oklahoma 74354

Sent by email to [chief@shawnee-tribe.com](mailto:chief@shawnee-tribe.com), [tonya@shawnee-tribe.com](mailto:tonya@shawnee-tribe.com)

Re: Initiation of Section 106 Consultation, George Washington Memorial Parkway South Section and Mount Vernon Trail Improvement Plan / Environmental Assessment

Dear Chief Barnes:

The National Park Service (NPS) is preparing a plan and corresponding Environmental Assessment (EA) to address deferred maintenance needs and safety along the southern portion of the George Washington Memorial Parkway (GW Parkway) and the entirety of the Mount Vernon Trail (MVT). The NPS understands the Shawnee Tribe to have interest in the preservation of Native American cultural resources of significance in this region and is writing to formally initiate consultation in compliance with Section 106 of the National Historic Preservation Act (NHPA) (54 U.S.C. § 306108) and its implementing regulations (36 CFR § 800).

### Description of the Undertaking

The plan would address deferred maintenance and improve safety on the south section of the GW Parkway—between the City of Alexandria and Mount Vernon in Virginia—and the majority of the MVT, extending from Theodore Roosevelt Island and the intersection with the Custis Trail in Arlington, Virginia, to Mount Vernon (the portion of the MVT and GW Parkway under the jurisdiction of the City of Alexandria would not be part of this planning exercise). The project would develop context sensitive solutions that improve these resources while maintaining the GW Parkway's scenic and historic character. Safety enhancements may include potential geometric changes to both the road and trail, such as trail and trail bridge widening; trail intersection treatments; permanent implementation of a road diet on the GW Parkway; and the installation of signals, crosswalks, and other roadway intersection treatments.

The GW Parkway was established by Congress on May 29, 1930. It is a scenic roadway that runs along the Potomac River through Virginia, the District of Columbia, and Maryland, protecting the landscape and natural and cultural resources along the shoreline of the river while offering magnificent scenic vistas from Mount Vernon to Great Falls. It is part of the comprehensive system of parks, parkways, and recreational areas surrounding the nation's capital and honors the nation's first president. The GW Parkway was listed in the National Register of Historic Places (NRHP) in 1995.

The southern portion of the GW Parkway, originally known as Mount Vernon Memorial Highway (MVMH), was under construction from 1929 to 1932, becoming part of the GW Parkway with its authorization in 1930. The MVMH extends 15.2 miles along the Potomac River from Arlington Memorial Bridge in Washington, DC to George Washington's historic home at Mount Vernon in Virginia. The MVMH was listed in the NRHP in 1981. For the purposes of this undertaking, the southern portion refers to the 8.5-mile stretch extending south from the north bank of Hunting Creek to the terminus at Mount Vernon.

The plan is needed to help preserve the historic parkway for future generations, improve the visitor experience, reduce annual park operations and maintenance costs, and improve visitor safety. The 2020 Safety Assessment prepared for the southern portion of the GW Parkway analyzed data from 389 crashes documented since 2005 (2005-2015; 2018-2019). Additionally, the pavement at the southern portion consists of reinforced concrete, which has been rated as being in overall "fair" condition. However, there are segments that are in poor condition, featuring deteriorated joints and undermined areas where holes of one foot or deeper are present.

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historic properties within the APE. Later, continued consultation will work to seek agreement on the determination of effect to historic properties and whether any potential adverse effects to historic properties might be avoided, minimized, or mitigated.

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In accordance with 36 CFR Part 800.2(c), NPS identified parties that may be interested in the proposed plan for the southern portion of the GW Parkway and the MVT and its effect on historic properties. The following organizations will be invited to participate as Section 106 consulting parties:

- Virginia Department of Historic Resources (Virginia State Historic Preservation Office)
- DC State Historic Preservation Office
- National Capital Planning Commission
- Commission of Fine Arts
- Virginia Department of Transportation
- Fairfax County Department of Transportation
- Fairfax County Park Authority
- City of Alexandria Department of Planning and Zoning
- City of Alexandria Transportation and Environmental Services
- Arlington County Department of Environmental Services
- Arlington County Parks and Recreation
- Office of Dan Storck, Mount Vernon Supervisor
- George Washington's Mount Vernon (Mount Vernon Ladies Association)
- Friends of Dyke Marsh
- Friends of the Mount Vernon Trail
- Pamunkey Indian Tribe
- Upper Mattaponi Indian Tribe
- Rappahannock Tribe
- Nansemond Indian Nation
- Chickahominy Indian Tribe
- Chickahominy Indian Tribe Eastern Division
- Monacan Indian Nation
- Catawba Indian Nation
- Delaware Nation

- Absentee Shawnee Tribe of Indians of Oklahoma

- Shawnee Tribe

We look forward to beginning the Section 106 consultation process for this project. If you have any questions or preliminary feedback related to the project and invited consulting parties please contact Matt Virta, Cultural Resources Program Manager for the GW Parkway, at [matthew\\_virta@nps.gov](mailto:matthew_virta@nps.gov).

Sincerely,

Charles Cuvelier

Date:  
2022.11.15  
12:54:47  
-05'00'

Charles Cuvelier  
Superintendent

Attachments: Attachment A – Draft Area of Potential Effect

**Schrader, Brett**

---

**From:** Joseph, Maureen <Maureen\_Joseph@nps.gov>  
**Sent:** Thursday, August 31, 2023 8:05 AM  
**To:** Bailey, Megan M; Gorder, Joel S; Theuer, Jason  
**Cc:** Schrader, Brett; Katie Hummelt  
**Subject:** Fw: [EXTERNAL] Section 106 Consultation - GWMP South Section & Mount Vernon Trail Improvement Plan

See note from Shawnee Tribe.

Maureen Joseph, ASLA (she/her)  
Resource Management Division Manager  
National Park Service - George Washington Memorial Parkway [Link](#)  
700 George Washington Memorial Parkway  
Turkey Run Park  
McLean, VA 22101

703.289.2512 (office)  
202.734.0932 (cell)  
[maureen\\_joseph@nps.gov](mailto:maureen_joseph@nps.gov)

*I'm a proud graduate of the GOAL Leadership Academy. Ask me about the program!*

---

**From:** Morales, Brendaliz <brendaliz\_morales@nps.gov>  
**Sent:** Thursday, August 31, 2023 7:42 AM  
**To:** Joseph, Maureen <Maureen\_Joseph@nps.gov>  
**Subject:** Fw: [EXTERNAL] Section 106 Consultation - GWMP South Section & Mount Vernon Trail Improvement Plan

Please see below.

---

**From:** Laserfiche Notification <donotreply@laserfiche.com>  
**Sent:** Wednesday, August 30, 2023 4:10 PM  
**To:** Morales, Brendaliz <brendaliz\_morales@nps.gov>  
**Subject:** [EXTERNAL] Section 106 Consultation - GWMP South Section & Mount Vernon Trail Improvement Plan

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

This email is in response to GWMP South Section & Mount Vernon Trail Improvement Plan. The project is out of the Shawnee Tribe's area of interest. If you have any questions, you may contact me via email at [Section106@shawnee-tribe.com](mailto:Section106@shawnee-tribe.com).

Thank you for giving us the opportunity to comment on this project.  
Sincerely,



**Erin Paden**

TRIBAL HISTORIC PRESERVATION  
SPECIALIST

Office: (918) 542-2441, x140

Email: [epaden@shawnee-tribe.com](mailto:epaden@shawnee-tribe.com)

29 S Hwy 69A

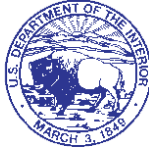
Miami, OK 74354

[shawnee-tribe.com](http://shawnee-tribe.com)

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**Atención:** Este correo electrónico proviene de fuera de Stantec. Por favor, tome precauciones adicionales.



## United States Department of the Interior

George Washington Memorial Parkway  
NATIONAL PARK SERVICE  
National Capital Region  
700 George Washington Memorial Parkway  
McLean, VA 22101

IN REPLY REFER TO:

November 4, 2022

Frank Adams, Chief  
Upper Mattaponi Indian Tribe  
Attn: Reggie Tupponce  
13476 King William Road  
King William, Virginia 23086

*Sent by email to [wfrankadams@verizon.net](mailto:wfrankadams@verizon.net), [admin@umitribe.org](mailto:admin@umitribe.org)*

Re: Initiation of Section 106 Consultation, George Washington Memorial Parkway South Section and Mount Vernon Trail Improvement Plan / Environmental Assessment

Dear Chief Adams:

The National Park Service (NPS) is preparing a plan and corresponding Environmental Assessment (EA) to address deferred maintenance needs and safety along the southern portion of the George Washington Memorial Parkway (GW Parkway) and the entirety of the Mount Vernon Trail (MVT). The NPS understands the Upper Mattaponi Indian Tribe to have interest in the preservation of Native American cultural resources of significance in this region and is writing to formally initiate consultation in compliance with Section 106 of the National Historic Preservation Act (NHPA) (54 U.S.C. § 306108) and its implementing regulations (36 CFR § 800).

### Description of the Undertaking

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- National Capital Planning Commission
- Commission of Fine Arts
- Virginia Department of Transportation
- Fairfax County Department of Transportation
- Fairfax County Park Authority
- City of Alexandria Department of Planning and Zoning
- City of Alexandria Transportation and Environmental Services
- Arlington County Department of Environmental Services
- Arlington County Parks and Recreation
- Office of Dan Storck, Mount Vernon Supervisor
- George Washington's Mount Vernon (Mount Vernon Ladies Association)
- Friends of Dyke Marsh
- Friends of the Mount Vernon Trail
- Pamunkey Indian Tribe
- Upper Mattaponi Indian Tribe
- Rappahannock Tribe
- Nansemond Indian Nation
- Chickahominy Indian Tribe
- Chickahominy Indian Tribe Eastern Division
- Monacan Indian Nation
- Catawba Indian Nation
- Delaware Nation



- Absentee Shawnee Tribe of Indians of Oklahoma
- Shawnee Tribe

We look forward to beginning the Section 106 consultation process for this project. If you have any questions or preliminary feedback related to the project and invited consulting parties please contact Matt Virta, Cultural Resources Program Manager for the GW Parkway, at [matthew\\_virta@nps.gov](mailto:matthew_virta@nps.gov).

Sincerely,

Charles Cuvelier  
Date: 2022.11.15 12:52:34-05'00'

Charles Cuvelier  
Superintendent

Attachments: Attachment A – Draft Area of Potential Effect



## United States Department of the Interior

George Washington Memorial Parkway  
NATIONAL PARK SERVICE  
700 George Washington Memorial Parkway  
McLean, VA 22101

August 22, 2023

### US Fish and Wildlife Service

Virginia Ecological Services Field Office  
6669 Short Lane  
Gloucester, VA 23061-4410  
[virginiafieldoffice@fws.gov](mailto:virginiafieldoffice@fws.gov)

Chesapeake Bay Ecological Field Office  
177 Admiral Cochrane Drive  
Annapolis, MD 21401-7307  
[cbfoprojectreview@fws.gov](mailto:cbfoprojectreview@fws.gov)

**Re:** Project Code: 2023-0090585  
Informal Section 7 Consultation for the Northern Long-Eared Bat (*Myotis septentrionalis*)  
George Washington Memorial Parkway South Section and Mount Vernon Trail Improvement Plan, Washington, DC, and Virginia

To whom it may concern –

The National Park Service (NPS) is developing a George Washington Memorial Parkway (the Parkway, park) South Section and Mount Vernon (MV) Trail Improvements Plan (Plan) to guide future actions that, when implemented, will improve the roadway and trail while maintaining the scenic and historic character of the Parkway. The figures attached to this letter present the general limits of the proposed improvements that include areas of the Parkway in Virginia, and portions of the MV Trail in Virginia and Washington, DC.

The Parkway has initiated informal Section 7 consultation in accordance with the Endangered Species Act (ESA) of 1973, as amended in 1982, for the federally endangered northern long-eared bat (*Myotis septentrionalis*, NLEB). The Parkway is also considering project impacts to the proposed endangered tricolored bat (*Perimyotis subflavus*) because it will be listed before Plan implementation is complete. The Parkway will reinitiate consultation after listing.

The NLEB are found throughout the Parkway in forest and other park areas in the vicinity of the project location (identified in Information for Planning and Consultation (IPaC) system as the “project action area”). A preliminary limit of disturbance for Plan implementation was used to generate the official species list in the IPaC system. To date, the US Fish and Wildlife Service (USFWS) has not designated critical habitat for these species in the Parkway.

We have made the determination that the proposed activity *may affect, but is not likely to adversely affect*, species listed as endangered under the ESA of 1973, as amended 1982. Our supporting analysis is provided below.

### PROJECT DESCRIPTION AND ACTION AREA

The proposed Plan implementation would rehabilitate and make safety improvements to the South Section of the GW Parkway from the Hunting Creek Bridge just south of the City of Alexandria, Virginia, to Mount Vernon Estate in Fairfax County, Virginia (see attached figures). The GW Parkway South Section is approximately 8.5 miles and is one of the most heavily used roadways in the NPS. This Plan involves comprehensive rehabilitation to restore the historic 1932 roadway

and drainage system for the first time, including complete replacement of the deteriorated road surface (concrete slabs), repairs or replacement of drainage structures, and rehabilitation of four bridges. In addition, the Plan includes implementation of a permanent road diet, accessible bicycle/pedestrian crosswalks, and other roadway and intersection improvements. A road diet is a roadway modification that can reduce speeds without changing the number of vehicles on the roadway, making it a safety improvement that is sensitive to the historic character of the GW Parkway.

The Plan also includes rehabilitation and safety improvements to the MV Trail across all NPS administered sections from Mount Vernon Estate in Fairfax County, Virginia, through Columbia Island, Washington DC, to the Theodore Roosevelt Island Parking Lot in Arlington County (see attached figures). The MV Trail is one of the most heavily used multi-use trails in the country. It is a very popular recreation resource and critical regional transportation link that hosts over one million pedestrians and bicyclists annually. The Plan involves rehabilitation of the trail; geometric changes, such as trail widening and minor realignments; trail bridge replacement or rehabilitation; trail intersection treatments; drainage improvements; vegetation management; and other trail amenities to improve safety and the visitor experience, and to extend the service life of the trail and minimize future maintenance requirements.

#### **LISTED SPECIES IN THE PROJECT ACTION AREA**

The NPS obtained an official species list from the IPaC system on 7 June 2023. According to IPaC, the federally listed endangered NLEB and proposed endangered tricolored bat are potentially in the project action area. The list also identified a candidate insect species, the monarch butterfly (*Danaus plexippus*), as potentially within the project action area.

We are using the Interim Guidelines and Range-wide Determination Key to consider impacts to the NLEB. The conservation measures proposed for the NLEB are anticipated to also protect the tricolored bat. However, the Parkway will reinitiate consultation after the tricolored bat listing is effective.

#### **Endangered Northern Long-Eared Bat**

NLEBs are nocturnal foragers and catch insects in flight or glean them from surfaces in conjunction with passive acoustic cues (IPaC definitions). The Parkway's forests contain potential roosts – live trees and / or snags  $\geq 3$  inches diameter at breast height (dbh) that have exfoliating bark, cracks, crevices, and / or cavities. Researchers have determined that NLEB is primarily an interior forest species (Lausen 2009). It roosts and forages within the forest understory during the summer season (USFWS 2015). Surveys from 2016 to 2018 for NLEB indicated that the species is found in the Parkway (Deeley et al. 2021). Further bat surveys are planned for 2025-2027 (D. Pavek personal communication 2023).

The South Parkway lies completely within the Coastal Plain of Virginia. We know that NLEB use the park throughout the active period from 1 April through 14 November for the Piedmont and year-round for the Coastal Plain. The maternity season is from 15 May to 31 July in the Piedmont and from 15 April to 31 July for the Coastal Plain in Virginia. There are no known hibernacula in the park.

#### **Anticipated Threats and Stressors to NLEB – Existing Environmental Baseline**

The Parkway entered project data into the IPaC system's NLEB determination key on 7 June 2023, a requirement given that (1) USFWS identified the species as present in the project action area, and (2) surveys have determined the presence of northern long-eared bat.

In answering the key's questions, NPS considered all effects of the proposed project in the project action area. This included all consequences to listed species (there is no critical habitat) that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. As defined by the Code of Federal Regulations, Title 50, Chapter IV, Subchapter A, Part 402, Subpart A, § 402.17, a consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur.

Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. As documented in the resulting Consistency Letter, issued on 28 June 2023 by the USFWS, the

determination of *May Affect* for the northern long-eared bat was reached. Therefore, consultation is required pursuant to Section 7(a)(2) of the ESA of 1973 (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.).

#### DEVELOPMENT OF CONSERVATION MEASURES TO PROTECT THE NLEB

The Parkway has developed conservation measures for this project that correspond to concerns identified in the determination key primarily through observing all time-of-year restrictions on tree removals. The NPS would implement the following conservation measures:

- The NPS would implement a time of year restriction on the removal of trees 3-inches dbh and greater, as well as repairs to bridges suitable for roosting, from **1 April to 14 November**.
- The NPS intends to minimize removal of trees to the extent possible. Opportunities to avoid and minimize tree removal would be evaluated as part of the detailed design process.
- The NPS would conduct summer surveys using protocols detailed in the USFWS's Range-Wide Indiana Bat and Northern Long-Eared Bat Survey Guidelines (March 2023).
- The NPS will check species status every 90 days in IPaC and will reinitiate consultation as needed to determine what conservation measures should be implemented to minimize potential effects.

In addition, the NPS is providing funding for Dr. Ford, Unit Leader, US Geological Survey (USGS) Cooperative Ecosystems Studies Unit, Virginia Polytechnic Institute and State University to survey all National Capital Region parks for bats, including the Parkway, from 2025 through 2027. As part of these planned studies, the researchers will:

1. Operate acoustics to fully characterize bat (all species) seasonal ecology, and begin to provide park-level, long-term trends in relative abundance, changes in community composition, and habitat associations;
2. Conduct targeted mist-net survey effort to capture and radio-tag NLEB to document day-roost type, forest stand composition and characteristics;
3. Collect tissue for genetic and stable-isotope to refine population structure assessments and connectedness to the presumed mid-Atlantic coastal population; and
4. Continue to incorporate the Parkway data points in USFWS and USGS Survey ESA monitoring protocol development and recommendations and North American Bat Monitoring (NABat) Program monitoring.

These proposed studies will help better understand the phenology of NLEB and other bat species present in the park, not just in relation to the impacts from this project, but from other natural and anthropogenic events as well. Acoustic devices provide park-specific habitat use association data. Also, mist-net capture and radio-tracking sessions in early to mid-spring arrival, mid-May through 31 July maternity season, and fall migration will provide high resolution day-roost data and insights on movement/migration patterns. In addition, tissue collection for genetics and stable-isotope analysis will provide a better understanding of the landscape role of the park to mid-Atlantic NLEB populations.

#### EFFECTS DETERMINATION

The determination key for the NLEB resulted in a *May Affect* determination likely due to the projects proximity to known occurrences. Implementation of this proposed project would involve both negative and positive impacts to roosting and foraging forested habitat for NLEB. The impacts could cause short-term reductions in habitat quality, result in behavior changes, and possible harm to NLEB.

By implementing and completing the longer-term, in-depth research in 2025-2027, the NPS will better understand the potential threats and stressors to NLEB created by the proposed project. This will help develop future conservation measures to address, reduce, and / or remove these potential threats and stressors and to other potential projects and activities within this and nearby areas of the park.

The conservation measures will reduce impacts from this project to an insignificant or discountable level, resulting in a *May Affect, but Not Likely to Adversely Affect* determination.

#### Cumulative Effects

There are no state or private actions occurring or planned for the action area.

## CONCLUSIONS

Based on the impact analysis and implementing the proposed conservation measures, including tree removal time-of-year restrictions, to minimize impacts, and monitoring and science studies, the NPS has determined that the proposed action *may affect, but is not likely to adversely affect*, the NLEB. We certify that we have used the best data available to complete this analysis. We request your concurrence with this determination.

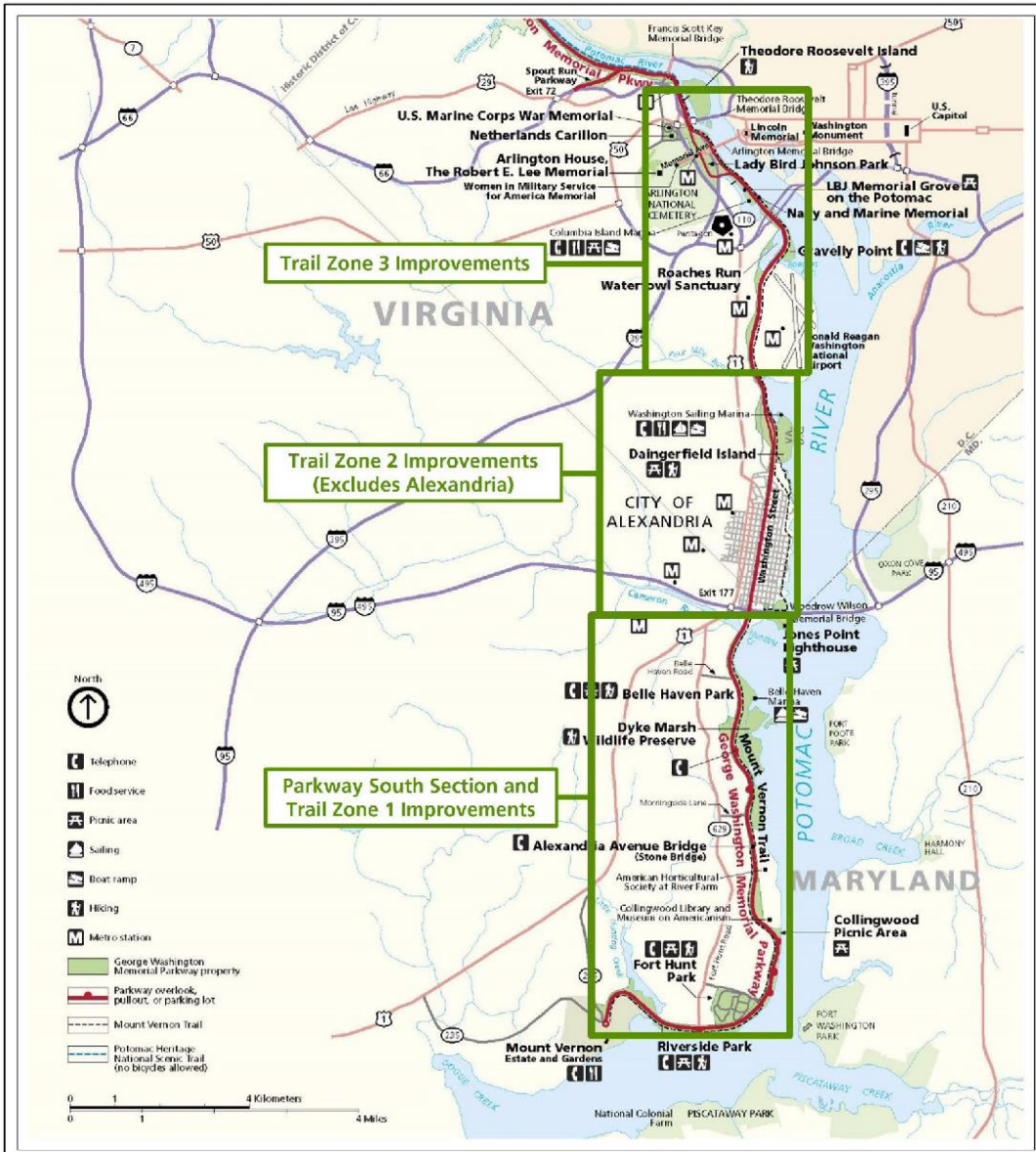
We look forward to your concurrence with this determination, or any comments or questions you have regarding the project. Please send any correspondence to GWMP Superintendent@nps.gov.

Sincerely,

**Charles**  
**Cuvelier**

Digitally signed by  
Charles Cuvelier  
Date: 2023.08.22  
13:29:34 -0400

Charles Cuvelier  
Superintendent

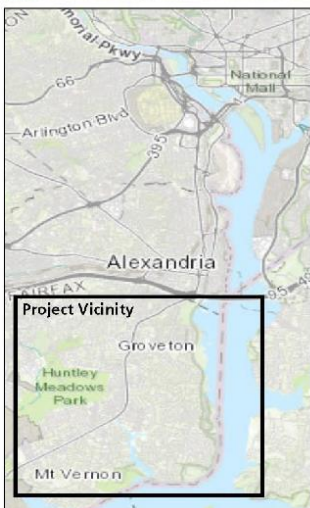


**GEORGE WASHINGTON MEMORIAL PARKWAY  
SOUTH SECTION AND MOUNT VERNON TRAIL  
IMPROVEMENT PLAN / ENVIRONMENTAL ASSESSMENT**

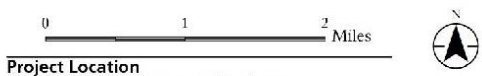


**PROJECT LOCATION MAP**





- Legend**
- - - Mount Vernon Trail
  - - - Excluded Trail Section
  - George Washington Memorial Parkway
  - Park Boundary
  - Traffic and Safety Assessment Intersections



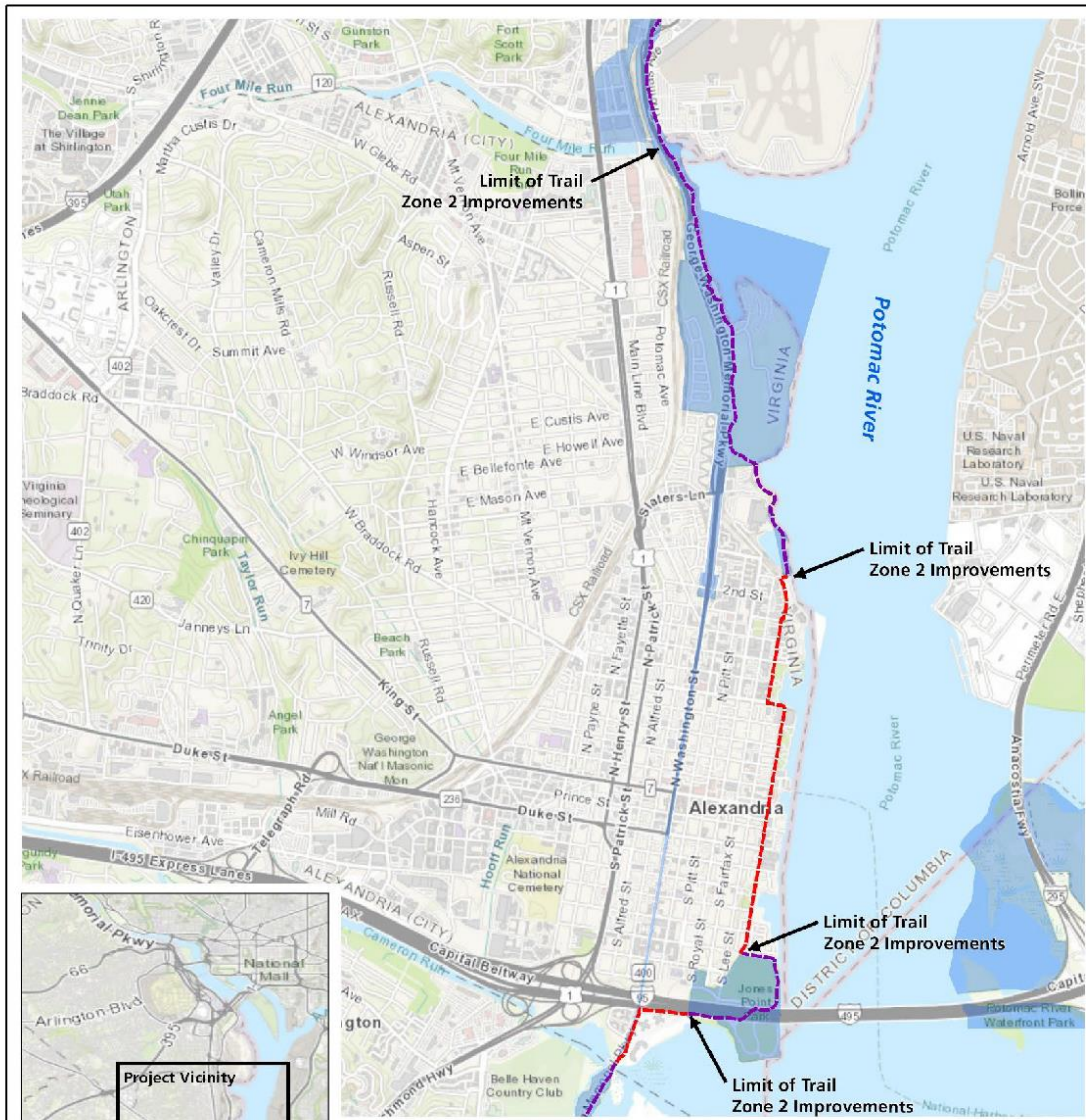
**Project Location**  
George Washington Memorial Parkway  
Washington, DC and Virginia

**Project**  
South Section and Mount Vernon Trail Improvements  
Plan and Environmental Assessment

Limits of Zone 1 Improvements







**Legend**

- - - Mount Vernon Trail
- - - Excluded Trail Section
- Park Boundary

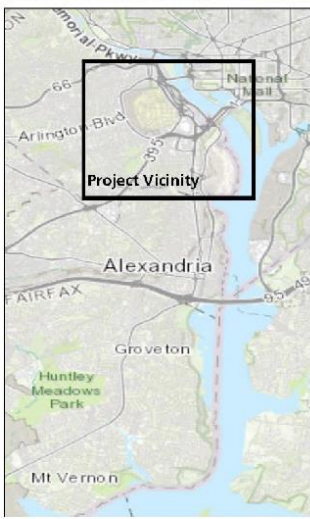


**Project Location**  
George Washington Memorial Parkway  
Washington, DC and Virginia

**Project**  
South Section and Mount Vernon Trail Improvements  
Plan and Environmental Assessment

Limits of Zone 2 Improvements





**Legend**

- - - Mount Vernon Trail
- - - Mount Vernon Trail - District Section
- Park Boundary



**Project Location**  
George Washington Memorial Parkway  
Washington, DC and Virginia

**Project**  
South Section and Mount Vernon Trail Improvements  
Plan and Environmental Assessment

Limits of Zone 3 Improvements







## United States Department of the Interior

FISH AND WILDLIFE SERVICE  
Virginia Ecological Services Field Office  
6669 Short Lane  
Gloucester, VA 23061-4410  
Phone: (804) 693-6694 Fax: (804) 693-9032



In Reply Refer To:  
Project Code: 2023-0090585  
Project Name: George Washington Memorial Parkway

June 07, 2023

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

#### To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*). Any activity proposed on National Wildlife Refuge lands must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

**Migratory Birds:** In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see <https://www.fws.gov/birds/policies-and-regulations.php>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see <https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/birds/policies-and-regulations/executive-orders/eo-13186.php>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Project Code in the header of this

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letter with any request for consultation or correspondence about your project that you submit to our office.

**Note:** IPaC has provided all available attachments because this project is in multiple field office jurisdictions.

**Attachment(s):**

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Migratory Birds
- Wetlands

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## **OFFICIAL SPECIES LIST**

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

**Virginia Ecological Services Field Office**  
6669 Short Lane  
Gloucester, VA 23061-4410  
(804) 693-6694

This project's location is within the jurisdiction of multiple offices. However, only one species list document will be provided for all offices. The species and critical habitats in this document reflect the aggregation of those that fall in each of the affiliated office's jurisdiction. Other offices affiliated with the project:

**Chesapeake Bay Ecological Services Field Office**  
177 Admiral Cochrane Drive  
Annapolis, MD 21401-7307  
(410) 573-4599

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## PROJECT SUMMARY

**Project Code:** 2023-0090585

**Project Name:** George Washington Memorial Parkway

**Project Type:** Road/Hwy - Maintenance/Modification

**Project Description:** This project will rehabilitate the George Washington Memorial Parkway south of Alexandria, which is one of the most heavily used roadways in the National Park Service.

**Project Location:**

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@38.710116150000005,-77.0586271137031,14z>



**Counties:** District of Columbia and Virginia

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## ENDANGERED SPECIES ACT SPECIES

There is a total of 3 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

## MAMMALS

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9045">https://ecos.fws.gov/ecp/species/9045</a>	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/10515">https://ecos.fws.gov/ecp/species/10515</a>	Proposed Endangered

## INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9743">https://ecos.fws.gov/ecp/species/9743</a>	Candidate

## CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

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## **USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES**

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

**THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.**

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## MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act<sup>1</sup> and the Bald and Golden Eagle Protection Act<sup>2</sup>.

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

**The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern \(BCC\)](#) list or warrant special attention in your project location.** To learn more about the levels of concern for birds on your list and how this list is generated, see the [FAQ](#) [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the **PROBABILITY OF PRESENCE SUMMARY** at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
<b>American Oystercatcher <i>Haematopus palliatus</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/8935">https://ecos.fws.gov/ecp/species/8935</a>	Breeds Apr 15 to Aug 31
<b>Bald Eagle <i>Haliaeetus leucocephalus</i></b> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Oct 15 to Aug 31

NAME	BREEDING SEASON
<b>Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9399">https://ecos.fws.gov/ecp/species/9399</a>	Breeds May 15 to Oct 10
<b>Blue-winged Warbler <i>Vermivora pinus</i></b> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds May 1 to Jun 30
<b>Bobolink <i>Dolichonyx oryzivorus</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Jul 31
<b>Canada Warbler <i>Cardellina canadensis</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Aug 10
<b>Cerulean Warbler <i>Dendroica cerulea</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/2974">https://ecos.fws.gov/ecp/species/2974</a>	Breeds Apr 29 to Jul 20
<b>Chimney Swift <i>Chaetura pelagica</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25
<b>Eastern Whip-poor-will <i>Antrostomus vociferus</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Aug 20
<b>Golden Eagle <i>Aquila chrysaetos</i></b> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. <a href="https://ecos.fws.gov/ecp/species/1680">https://ecos.fws.gov/ecp/species/1680</a>	Breeds elsewhere
<b>Hudsonian Godwit <i>Limosa haemastica</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
<b>Kentucky Warbler <i>Oporornis formosus</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 20 to Aug 20
<b>King Rail <i>Rallus elegans</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/8936">https://ecos.fws.gov/ecp/species/8936</a>	Breeds May 1 to Sep 5

NAME	BREEDING SEASON
<b>Lesser Yellowlegs <i>Tringa flavipes</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9679">https://ecos.fws.gov/ecp/species/9679</a>	Breeds elsewhere
<b>Prairie Warbler <i>Dendroica discolor</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31
<b>Prothonotary Warbler <i>Protonotaria citrea</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 1 to Jul 31
<b>Red-headed Woodpecker <i>Melanerpes erythrocephalus</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
<b>Ruddy Turnstone <i>Arenaria interpres morinella</i></b> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere
<b>Rusty Blackbird <i>Euphagus carolinus</i></b> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere
<b>Short-billed Dowitcher <i>Limnodromus griseus</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9480">https://ecos.fws.gov/ecp/species/9480</a>	Breeds elsewhere
<b>Willet <i>Tringa semipalmata</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 20 to Aug 5
<b>Wood Thrush <i>Hylocichla mustelina</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

## PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

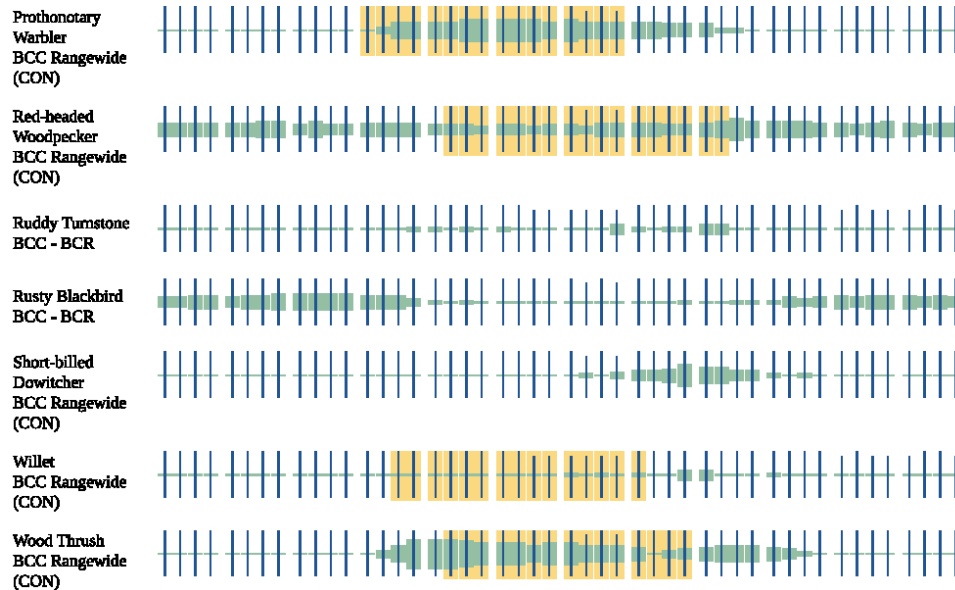
### Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week









Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

## MIGRATORY BIRDS FAQ

**Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.**

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

**What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?**

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The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

**What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?**

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

**How do I know if a bird is breeding, wintering or migrating in my area?**

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

**What are the levels of concern for migratory birds?**

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern \(BCC\)](#) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
  2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
  3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles)
-

potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

#### **Details about birds that are potentially affected by offshore projects**

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

#### **What if I have eagles on my list?**

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

#### **Proper Interpretation and Use of Your Migratory Bird Report**

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

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## **WETLANDS**

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

WETLAND INFORMATION WAS NOT AVAILABLE WHEN THIS SPECIES LIST WAS GENERATED.  
PLEASE VISIT [HTTPS://WWW.FWS.GOV/WETLANDS/DATA/MAPPER.HTML](https://www.fws.gov/wetlands/data/mapper.html) OR CONTACT THE FIELD OFFICE FOR FURTHER INFORMATION.

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**IPAC USER CONTACT INFORMATION**

Agency: Stantec  
Name: Rebecca Cummings  
Address: 1011 Boulder Springs Dr  
Address Line 2: Suite 225  
City: Richmond  
State: VA  
Zip: 23225  
Email: rebecca.cummings@stantec.com  
Phone: 8047296754

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## United States Department of the Interior

FISH AND WILDLIFE SERVICE  
Assistant Regional Director-Ecological Services  
5600 American Blvd. West  
Bloomington, MN 55437-1458  
Phone: (612) 713-5350 Fax: (612) 713-5292



In Reply Refer To:

June 28, 2023

Project code: 2023-0090585

Project Name: George Washington Memorial Parkway South Section and Mount Vernon Trail Improvements Plan

Federal Nexus: yes

Federal Action Agency (if applicable): National Park Service

**Subject:** Technical assistance for 'George Washington Memorial Parkway South Section and Mount Vernon Trail Improvements Plan'

Dear Sean Wender:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on June 28, 2023, for 'George Washington Memorial Parkway South Section and Mount Vernon Trail Improvements Plan' (here forward, Project). This project has been assigned Project Code 2023-0090585 and all future correspondence should clearly reference this number. **Please carefully review this letter. Your Endangered Species Act (Act) requirements are not complete.**

### Ensuring Accurate Determinations When Using IPaC

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into IPaC must accurately represent the full scope and details of the Project. **Failure to accurately represent or implement the Project as detailed in IPaC or the Northern Long-eared Bat Rangewide Determination Key (Dkey), invalidates this letter.**

### Determination for the Northern Long-Eared Bat

Based on your IPaC submission and the standing analysis for the Dkey, your project has reached the determination of "May Affect" the northern long-eared bat.

### Next Steps

Your action may qualify for the Interim Consultation Framework for the northern long-eared bat. To determine if it qualifies, review the Interim Consultation Framework posted here <https://www.fws.gov/library/collections/interim-consultation-framework-northern-long-eared-bat>. If you determine it meets the requirements of the Interim Consultation Framework, follow the procedures outlined there to complete section 7 consultation.

If your project does **not** meet the requirements of the Interim Consultation Framework, please contact the Assistant Regional Director-Ecological Services for further coordination on this project. Further consultation or coordination with the Service is necessary for those species or designated critical habitats with a determination of "May Affect".

**Other Species and Critical Habitat that May be Present in the Action Area**

The IPaC-assisted determination for the northern long-eared bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- Monarch Butterfly *Danaus plexippus* Candidate
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered

You may coordinate with our Office to determine whether the Action may cause prohibited take of the species listed above.

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**Action Description**

You provided to IPaC the following name and description for the subject Action.

**1. Name**

George Washington Memorial Parkway South Section and Mount Vernon Trail Improvements Plan

**2. Description**

The following description was provided for the project 'George Washington Memorial Parkway South Section and Mount Vernon Trail Improvements Plan':

The proposed Plan implementation would rehabilitate and make safety improvements to the approximately 8.5-mile South Section of the GW Parkway from the Hunting Creek Bridge just south of the City of Alexandria, Virginia, to Mount Vernon Estate in Fairfax County. The Plan also includes rehabilitation and safety improvements to the Mount Vernon Trail across all NPS administered sections from the Theodore Roosevelt Island parking lot in Arlington County to Mount Vernon Estate.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@38.710115900000005,-77.05862708713929,14z>



## DETERMINATION KEY RESULT

Based on the answers provided, the proposed Action is consistent with a determination of “may affect” for the Endangered northern long-eared bat (*Myotis septentrionalis*).

## QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of the northern long-eared bat or any other listed species?

**Note:** Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

No

2. Do you have post-white nose syndrome occurrence data that indicates that northern long-eared bats (NLEB) are likely to be present in the action area?

Bat occurrence data may include identification of NLEBs in hibernacula, capture of NLEBs, tracking of NLEBs to roost trees, or confirmed acoustic detections. With this question, we are looking for data that, for some reason, may have not yet been made available to U.S. Fish and Wildlife Service.

No

3. Does any component of the action involve construction or operation of wind turbines?

**Note:** For federal actions, answer ‘yes’ if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

4. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

5. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

No

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6. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

**Note:** This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

*No*

7. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

*No*

8. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

*No*

9. Have you determined that your proposed action will have no effect on the northern long-eared bat? Remember to consider the [effects of any activities](#) that would not occur but for the proposed action.

If you think that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, answer “No” below and continue through the key. If you have determined that the northern long-eared bat does not occur in your project’s action area and/or that your project will have no effects whatsoever on the species despite the potential for it to occur in the action area, you may make a “no effect” determination for the northern long-eared bat.

**Note:** Federal agencies (or their designated non-federal representatives) must consult with USFWS on federal agency actions that may affect listed species [50 CFR 402.14(a)]. Consultation is not required for actions that will not affect listed species or critical habitat. Therefore, this determination key will not provide a consistency or verification letter for actions that will not affect listed species. If you believe that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, please answer “No” and continue through the key. Remember that this key addresses only effects to the northern long-eared bat. Consultation with USFWS would be required if your action may affect another listed species or critical habitat. The definition of [Effects of the Action](#) can be found here: <https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions>

*No*

10. [Semantic] Is the action area located within 0.5 miles of a known northern long-eared bat hibernaculum?

**Note:** The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.

**Automatically answered**

*No*

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11. Does the action area contain any caves (or associated sinkholes, fissures, or other karst features), mines, rocky outcroppings, or tunnels that could provide habitat for hibernating northern long-eared bats?

No

12. Is suitable summer habitat for the northern long-eared bat present within 1000 feet of project activities?  
(If unsure, answer "Yes.")

**Note:** If there are trees within the action area that are of a sufficient size to be potential roosts for bats (i.e., live trees and/or snags  $\geq 3$  inches (12.7 centimeter) dbh), answer "Yes". If unsure, additional information defining suitable summer habitat for the northern long-eared bat can be found at: <https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions>

Yes

13. Will the action cause effects to a bridge?

Yes

14. Has a site-specific bridge assessment following [USFWS guidelines](#) been completed?

**Note:** For information on conducting a bridge/structure assessment, see Appendix D of the User's Guide for the Range-wide Programmatic Consultation for Indiana Bat and Northern Long-eared Bat and the associated Bridge/Structure Bat Assessment Form. Additional resources can be found at: <https://www.fws.gov/media/bats-and-transportation-structures-references-and-additional-resources> and a training video is located at: <https://www.youtube.com/watch?v=iuFwkT7q8Ws>.

No

15. Will the proposed action result in the cutting or other means of knocking down, bringing down, or trimming of any trees suitable for northern long-eared bat roosting?

**Note:** Suitable northern long-eared bat roost trees are live trees and/or snags  $\geq 3$  inches dbh that have exfoliating bark, cracks, crevices, and/or cavities.

Yes

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## PROJECT QUESTIONNAIRE

Enter the extent of the action area (in acres) from which trees will be removed - round up to the nearest tenth of an acre. For this question, include the entire area where tree removal will take place, even if some live or dead trees will be left standing.

3.5

In what extent of the area (in acres) will trees be cut, knocked down, or trimmed during the inactive (hibernation) season for northern long-eared bat? **Note:** Inactive Season dates for spring staging/fall swarming areas can be found here: <https://www.fws.gov/media/inactive-season-dates-swarming-and-staging-areas>

3.5

In what extent of the area (in acres) will trees be cut, knocked down, or trimmed during the active (non-hibernation) season for northern long-eared bat? **Note:** Inactive Season dates for spring staging/fall swarming areas can be found here: <https://www.fws.gov/media/inactive-season-dates-swarming-and-staging-areas>

0

Will all potential northern long-eared bat (NLEB) roost trees (trees  $\geq 3$  inches diameter at breast height, dbh) be cut, knocked, or brought down from any portion of the action area greater than or equal to 0.1 acre? If all NLEB roost trees will be removed from multiple areas, select 'Yes' if the cumulative extent of those areas meets or exceeds 0.1 acre.

Yes

Enter the extent of the action area (in acres) from which all potential NLEB roost trees will be removed. If all NLEB roost trees will be removed from multiple areas, entire the total extent of those areas. Round up to the nearest tenth of an acre.

3.5

For the area from which all potential northern long-eared bat (NLEB) roost trees will be removed, on how many acres (round to the nearest tenth of an acre) will trees be allowed to regrow? Enter '0' if the entire area from which all potential NLEB roost trees are removed will be developed or otherwise converted to non-forest for the foreseeable future.

0

Will any snags (standing dead trees)  $\geq 3$  inches dbh be left standing in the area(s) in which all northern long-eared bat roost trees will be cut, knocked down, or otherwise brought down?

No

Will all project activities be completed by April 1, 2024?

No

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**IPAC USER CONTACT INFORMATION**

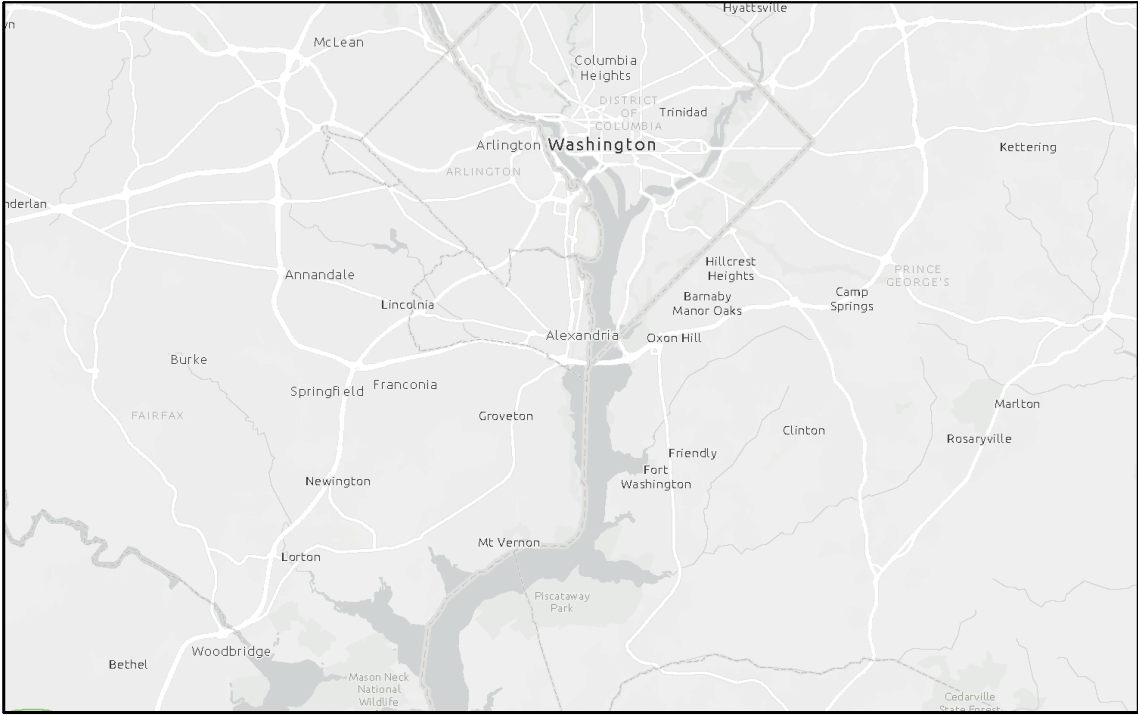
Agency: Stantec Consulting Services Inc.  
Name: Sean Wender  
Address: 1011 Boulder Springs Drive, Suite 225  
City: Richmond  
State: VA  
Zip: 23225  
Email: sean.wender@stantec.com  
Phone: 8043178027

**LEAD AGENCY CONTACT INFORMATION**


Lead Agency: National Park Service

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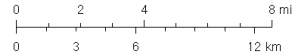
# NLEB Locations and Roost Trees



8/29/2023, 11:24:14 AM

 NLEB Capture 3 Mile Buffer

1:288,895



DCGIS, Fairfax County, VA, M-NCPPC, VGIN, Esri, HERE, Garmin, SafeGraph, METINASA, USGS, EPA, NPS, USDA

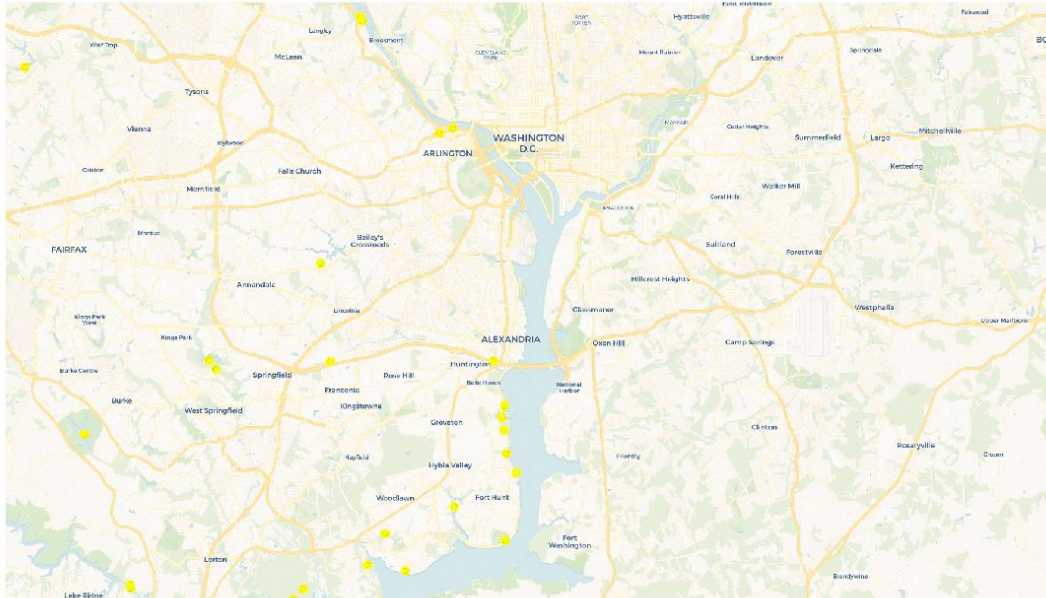
VA Dept. Game & Inland Fisheries

DCGIS, Fairfax County, VA, M-NCPPC, VGIN, Esri, HERE, Garmin, SafeGraph, METINASA, USGS, EPA, NPS, USDA | Virginia Geographic Information Network (VGIN), and the Census and Localities and Towns submitting data to the project | DCGIS, Fairfax



The CENTER for  
CONSERVATION  
BIOLOGY

# CCB Mapping Portal



**Layers:** VA Eagle Nest Locator, VA Eagle Nest Buffers

**Map Center [longitude, latitude]:** [-77.0416259765625, 38.80225962384822]

**Map Link:**

[https://www.ccbbirds.org/maps/#layer=VA+Eagle+Nest+Locator&layer=VA+Eagle+Nest+Buffers&zoom=12&lat=38.80225962384822&lng=-77.0416259765625&legend=legend\\_tab\\_7c321b7e-e523-11e4-aaa0-0e0c41326911&base=Street+Map+%28OSM%2FCarto%29](https://www.ccbbirds.org/maps/#layer=VA+Eagle+Nest+Locator&layer=VA+Eagle+Nest+Buffers&zoom=12&lat=38.80225962384822&lng=-77.0416259765625&legend=legend_tab_7c321b7e-e523-11e4-aaa0-0e0c41326911&base=Street+Map+%28OSM%2FCarto%29)

**Report Generated On:** 08/29/2023

The Center for Conservation Biology (CCB) provides certain data online as a free service to the public and the regulatory sector. CCB encourages the use of its data sets in wildlife conservation and management applications. These data are protected by intellectual property laws. All users are reminded to view the [Data Use Agreement](#) to ensure compliance with our data use policies. For additional data access questions, view our [Data Distribution Policy](#) or contact our Data Manager, Marie Pitts, at [mlpitts@wm.edu](mailto:mlpitts@wm.edu) or 757-221-7503.

Report generated by [The Center for Conservation Biology Mapping Portal](#).

To learn more about CCB visit [ccbbirds.org](http://ccbbirds.org) or contact us at [info@ccbbirds.org](mailto:info@ccbbirds.org)



**Endangered Species Act (ESA) Section 7 Determination Table**

Project Name: George Washington Memorial Parkway South Section and Mount Vernon Trail Improvements Plan

Date: June 29, 2023

Consultation Code: 2023-0090585

<b>Species / Resource Name</b> <i>Insert name of species or resource as listed on Official Species List.</i>	<b>Habitat/Species Presence in Action Area</b> <i>Indicate if suitable habitat and species are present in the Action Area (see examples in Step 5).</i>	<b>Sources of Info</b> <i>Explain what info suitable habitat/species presence is based on.</i>	<b>ESA Section 7 Determination</b> <i>Using reasoning and decision tables in Step 5, select determination for each species (e.g. no effect, not likely to adversely affect, or likely to adversely affect).</i>	<b>Project Elements that Support Determination</b> <i>Explain which project elements may impact the habitat or individuals of each species and any Avoidance and Minimization Measures being implemented.</i>
Northern Long-eared Bat <i>(Myotis septentrionalis)</i>	Potential habitat present.	USFWS-IPaC	May Affect, Not Likely to Adversely Affect	Completion of DKey resulted in a <i>May Affect</i> determination. Based on proposed conservation measures, including a time-of-year restriction for tree clearing and bridge work between April 1 – November 14, we have concluded that a <i>May Affect, Not Likely to Adversely Affect</i> determination would be appropriate for the project.
Tricolored Bat <i>(Perimyotis subflavus)</i>	Potential habitat present.	USFWS-IPaC	May Affect, Not Likely to Adversely Affect (Pending Official Listing)	Currently proposed endangered, with the formal listing expected in 2023. We anticipate that conservation measures proposed for the northern long-eared bat would also result in a <i>May Affect, Not Likely to Adversely Affect</i> determination for the tricolored bat, once listed.
Monarch Butterfly <i>(Danaus plexippus)</i>	Potential habitat present.	USFWS-IPaC	N/A	Candidate species not proposed for listing. No coordination necessary.
Critical Habitat	There are no critical habitats within the project area.	USFWS-IPaC	No Effect	N/A
Bald Eagle <i>(Haliaeetus leucocephalus)</i>	Nests potentially adjacent to project area.	CCB Virginia Eagle Nest Locator	To be determined.	CCB Nest Locator identified multiple nests adjacent to the project area. If activities will need to occur within 660 feet of an active nest, coordination with USFWS will be necessary under the Bald and Golden Eagle Protection Act.

# **George Washington Memorial Parkway South Section and Mount Vernon Trail Improvements Plan**

**Environmental Assessment**

**Appendix B. Parkway and Trail Redesign Concepts**



**Legend**

- Existing pavement
- Edge line
- Dividing line
- Travel direction arrows

50' 0 50' 100'

**Project:**  
George Washington Memorial Parkway South Section and  
Mount Vernon Trail Improvements Plan  
and Environmental Assessment

**Conceptual Road Diet Striping Plan – Typical Section  
(No Median)**

Figure 1. Conceptual Road Diet Striping Plan – Typical Section (No Median)





Figure 2. Conceptual Road Diet Striping Plan – Typical Section (Varying Width Median)



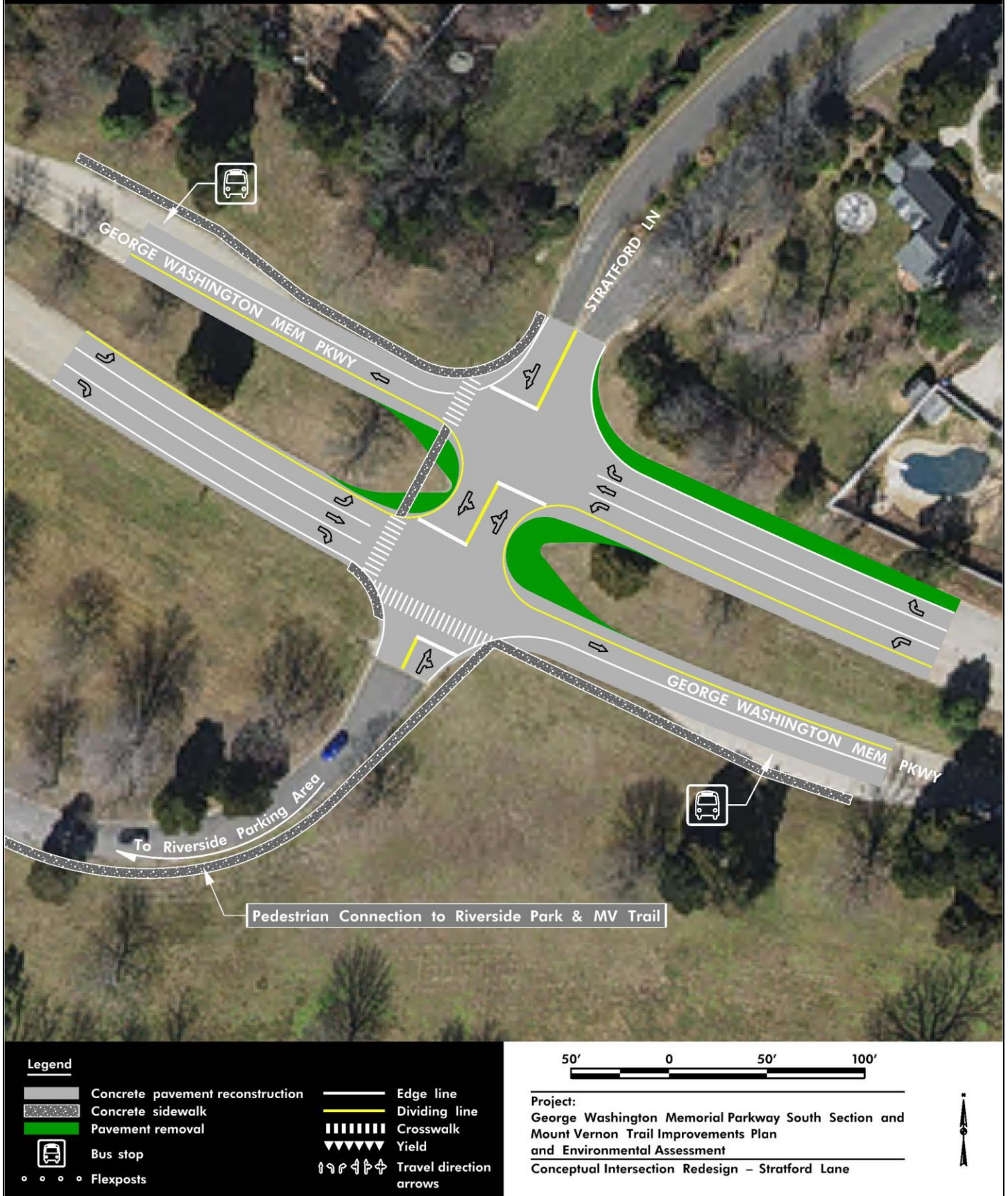


Figure 3. Conceptual Intersection Redesign – Stratford Lane















Figure 4. Conceptual Intersection Redesign – Vernon View Drive





**Legend**

- |   |                                  |   |                         |
|---|----------------------------------|---|-------------------------|
|  | Concrete pavement reconstruction |  | Edge line               |
|  | Concrete sidewalk                |  | Dividing line           |
|  | Pavement removal                 |  | Crosswalk               |
|  | Bus stop                         |  | Yield                   |
|  | Flexposts                        |  | Travel direction arrows |

50' 0 50' 100'

Project:  
George Washington Memorial Parkway South Section and  
Mount Vernon Trail Improvements Plan  
and Environmental Assessment  
Conceptual Intersection Redesign – Waynewood Boulevard



Figure 5. Conceptual Intersection Redesign – Waynewood Boulevard

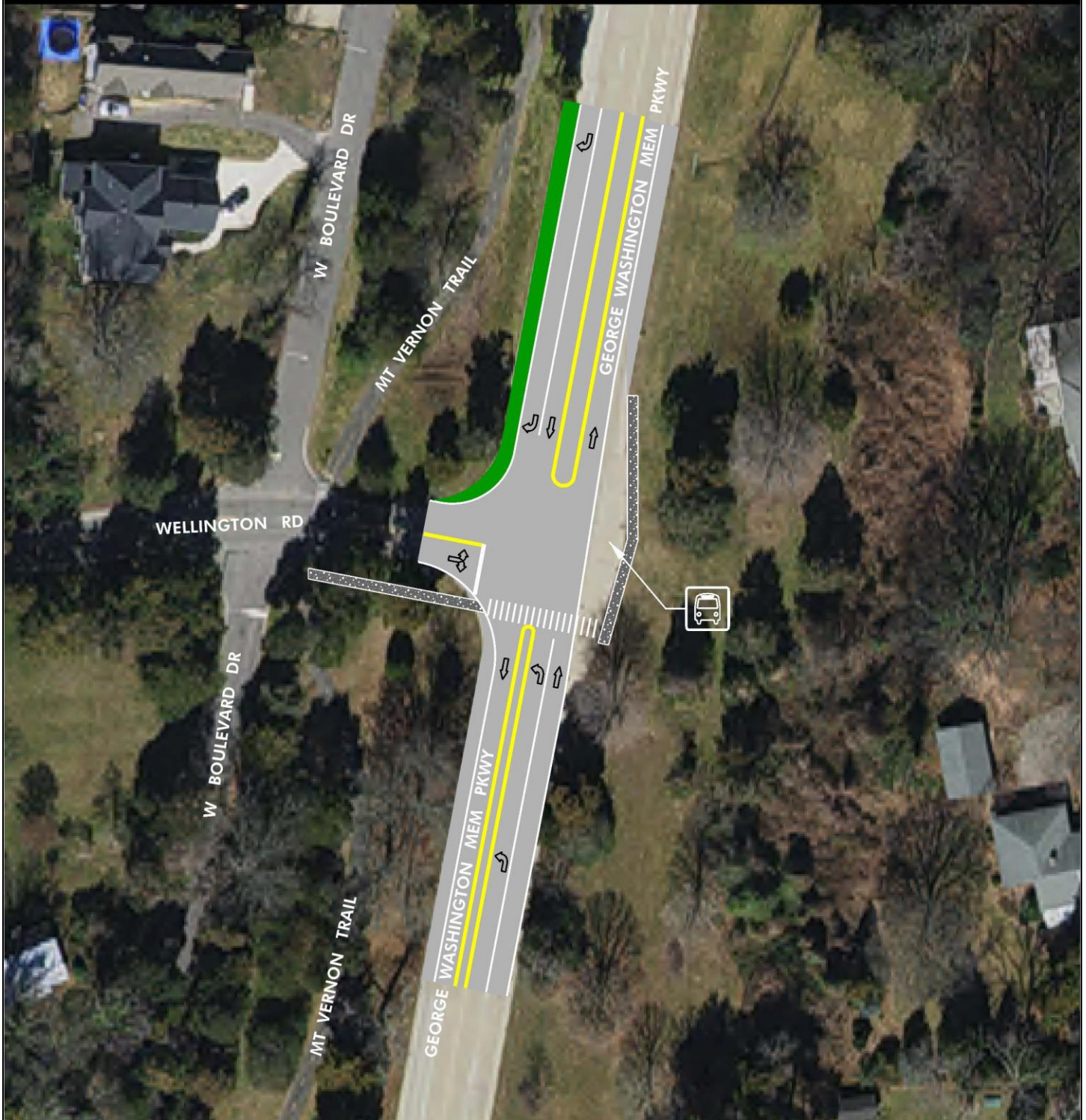




<b>Legend</b>		50' 0 50' 100'	
Concrete pavement reconstruction	Concrete sidewalk	Pavement removal	Bus stop
Flexposts	Edge line	Dividing line	Crosswalk
Yield	Travel direction arrows	<p><b>Project:</b> George Washington Memorial Parkway South Section and Mount Vernon Trail Improvements Plan and Environmental Assessment</p> <p><b>Conceptual Intersection Redesign – Collingwood Road</b></p>	

Figure 6. Conceptual Intersection Redesign – Collingwood Road





**Legend**

- |  |                                  |  |                         |
|--|----------------------------------|--|-------------------------|
|  | Concrete pavement reconstruction |  | Edge line               |
|  | Concrete sidewalk                |  | Dividing line           |
|  | Pavement removal                 |  | Crosswalk               |
|  | Bus stop                         |  | Yield                   |
|  | Flexposts                        |  | Travel direction arrows |

50' 0 50' 100'

Project:  
George Washington Memorial Parkway South Section and  
Mount Vernon Trail Improvements Plan  
and Environmental Assessment  
Conceptual Intersection Redesign – Wellington Road



Figure 7. Conceptual Intersection Redesign – Wellington Road





**Legend**

- |  |                                  |  |                         |
|--|----------------------------------|--|-------------------------|
|  | Concrete pavement reconstruction |  | Edge line               |
|  | Concrete sidewalk                |  | Dividing line           |
|  | Pavement removal                 |  | Crosswalk               |
|  | Bus stop                         |  | Yield                   |
|  | Flexposts                        |  | Travel direction arrows |

50' 0 50' 100'

**Project:**  
George Washington Memorial Parkway South Section and Mount Vernon Trail Improvements Plan and Environmental Assessment  
**Conceptual Intersection Redesign – Outlet Road / E. Boulevard Drive**



Figure 8. Conceptual Intersection Redesign – Outlet Road / E. Boulevard Drive





**Legend**

- |  |                                  |  |                         |
|--|----------------------------------|--|-------------------------|
|  | Concrete pavement reconstruction |  | Edge line               |
|  | Concrete sidewalk                |  | Dividing line           |
|  | Pavement removal                 |  | Crosswalk               |
|  | Bus stop                         |  | Yield                   |
|  | Flexposts                        |  | Travel direction arrows |

50' 0 50' 100'

**Project:**  
George Washington Memorial Parkway South Section and Mount Vernon Trail Improvements Plan and Environmental Assessment  
**Conceptual Intersection Redesign – W. Boulevard Drive**



Figure 9. Conceptual Intersection Redesign – Access to W. Boulevard Drive





**Legend**

- |                                  |                         |
|----------------------------------|-------------------------|
| Concrete pavement reconstruction | Edge line               |
| Concrete sidewalk                | Dividing line           |
| Pavement removal                 | Crosswalk               |
| Bus stop                         | Yield                   |
| Flexposts                        | Travel direction arrows |

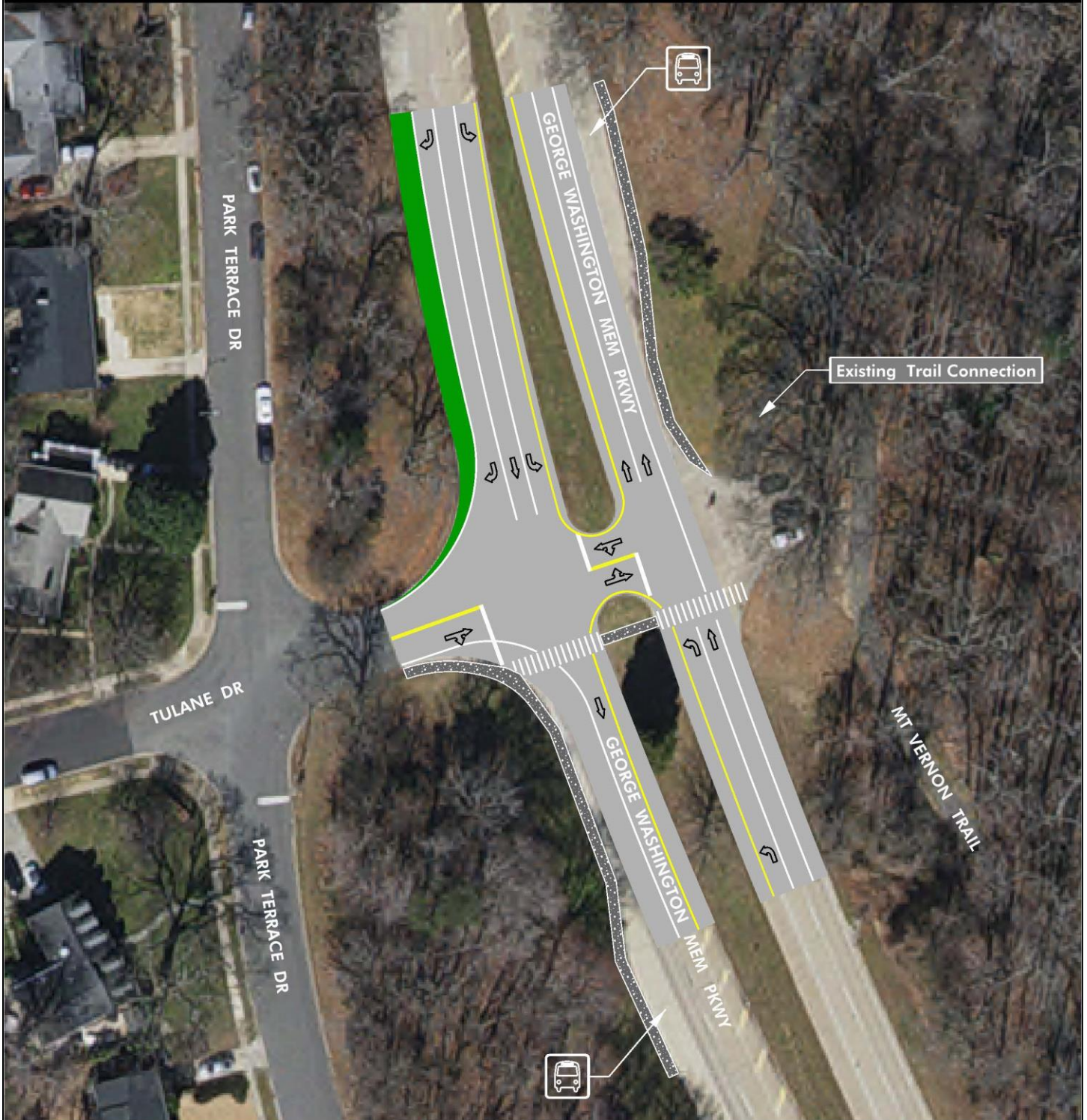
50' 0 50' 100'

Project:  
George Washington Memorial Parkway South Section and  
Mount Vernon Trail Improvements Plan  
and Environmental Assessment  
Conceptual Intersection Redesign – Morningside Lane



Figure 10. Conceptual Intersection Redesign – Morningside Lane





**Legend**

- |  |                                  |  |                         |
|--|----------------------------------|--|-------------------------|
|  | Concrete pavement reconstruction |  | Edge line               |
|  | Concrete sidewalk                |  | Dividing line           |
|  | Pavement removal                 |  | Crosswalk               |
|  | Bus stop                         |  | Yield                   |
|  | Flexposts                        |  | Travel direction arrows |

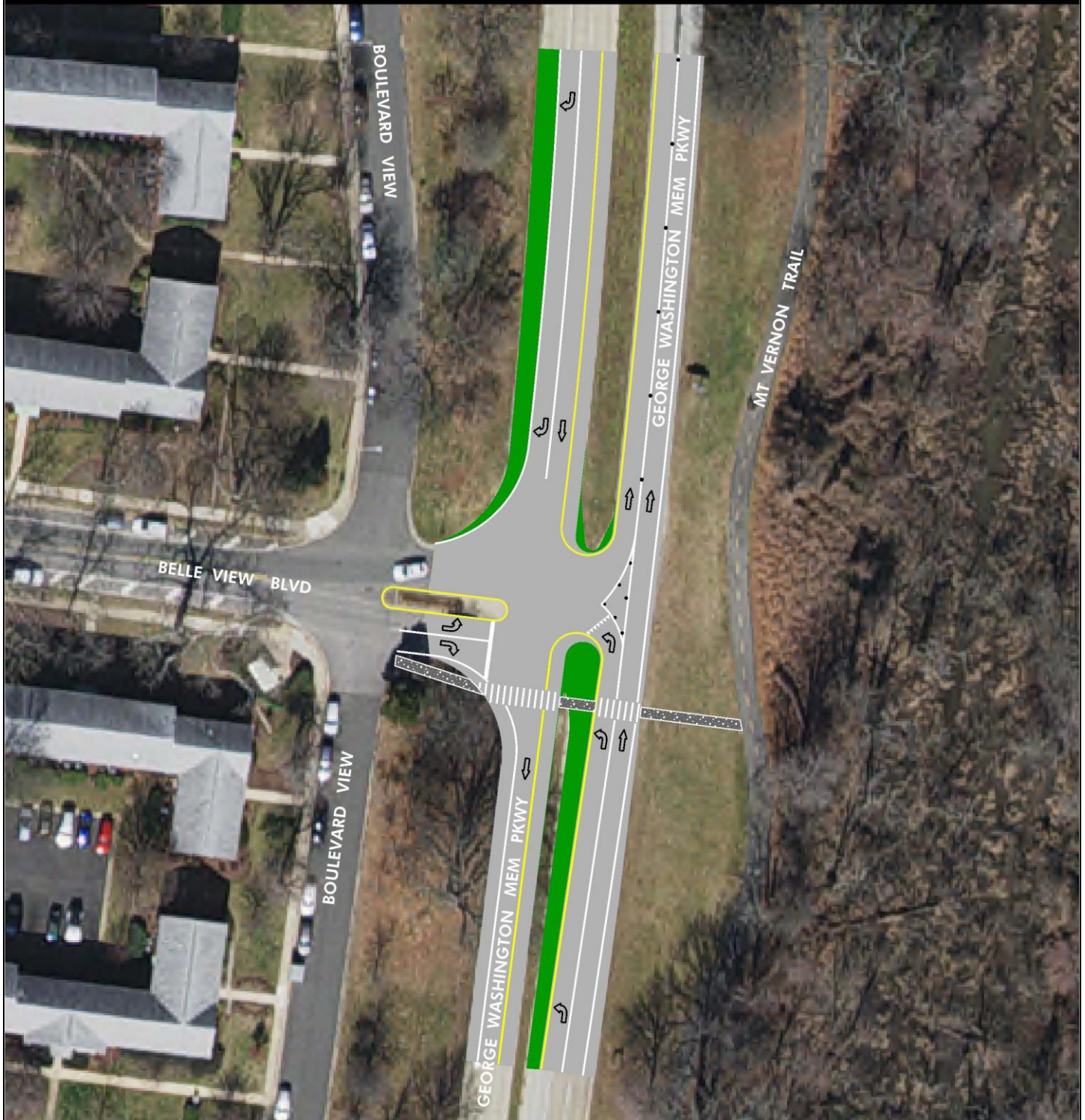
50' 0 50' 100'

**Project:**  
George Washington Memorial Parkway South Section and  
Mount Vernon Trail Improvements Plan  
and Environmental Assessment  
**Conceptual Intersection Redesign – Tulane Drive**



Figure 11. Conceptual Intersection Redesign – Tulane Drive





**Legend**

- |  |                                  |  |                         |
|--|----------------------------------|--|-------------------------|
|  | Concrete pavement reconstruction |  | Edge line               |
|  | Concrete sidewalk                |  | Dividing line           |
|  | Pavement removal                 |  | Crosswalk               |
|  | Bus stop                         |  | Yield                   |
|  | Flexposts                        |  | Travel direction arrows |



**Project:**  
George Washington Memorial Parkway South Section and Mount Vernon Trail Improvements Plan and Environmental Assessment  
**Conceptual Intersection Redesign – Belle View Boulevard**



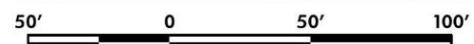
Figure 12. Conceptual Intersection Redesign – Belle View Boulevard





**Legend**

- |  |                                  |  |                         |
|--|----------------------------------|--|-------------------------|
|  | Concrete pavement reconstruction |  | Edge line               |
|  | Concrete sidewalk                |  | Dividing line           |
|  | Pavement removal                 |  | Crosswalk               |
|  | Bus stop                         |  | Yield                   |
|  | Flexposts                        |  | Travel direction arrows |



**Project:**  
George Washington Memorial Parkway South Section and Mount Vernon Trail Improvements Plan and Environmental Assessment  
**Conceptual Intersection Redesign – Belle Haven Marina Driveway**



Figure 13. Conceptual Intersection Redesign – Belle Haven Marina Driveway





Legend	
	Concrete pavement reconstruction
	Concrete sidewalk
	Pavement removal
	Bus stop
	Flexposts
	Edge line
	Dividing line
	Crosswalk
	Yield
	Travel direction arrows

50' 0 50' 100'

Project:  
George Washington Memorial Parkway South Section and  
Mount Vernon Trail Improvements Plan  
and Environmental Assessment  
Conceptual Intersection Redesign – Belle Haven Road



Figure 14. Conceptual Intersection Redesign – Belle Haven Road





**Legend**

- Asphalt pavement reconstruction
- Pavement removal
- Dividing line

50' 0 50' 100'

**Project:**  
George Washington Memorial Parkway South Section and  
Mount Vernon Trail Improvements Plan  
and Environmental Assessment  
**Conceptual Trail Realignment – Daingerfield Island Curve**



Figure 15. Conceptual Trail Realignment – Daingerfield Island Curve





**Legend**

- |   |   |
|---|---|
|  Asphalt pavement reconstruction |  Edge line               |
|  Curb and gutter                 |  Dividing line           |
|  Pavement removal                |  Yield                   |
|  Cobblestone                     |  Travel direction arrows |

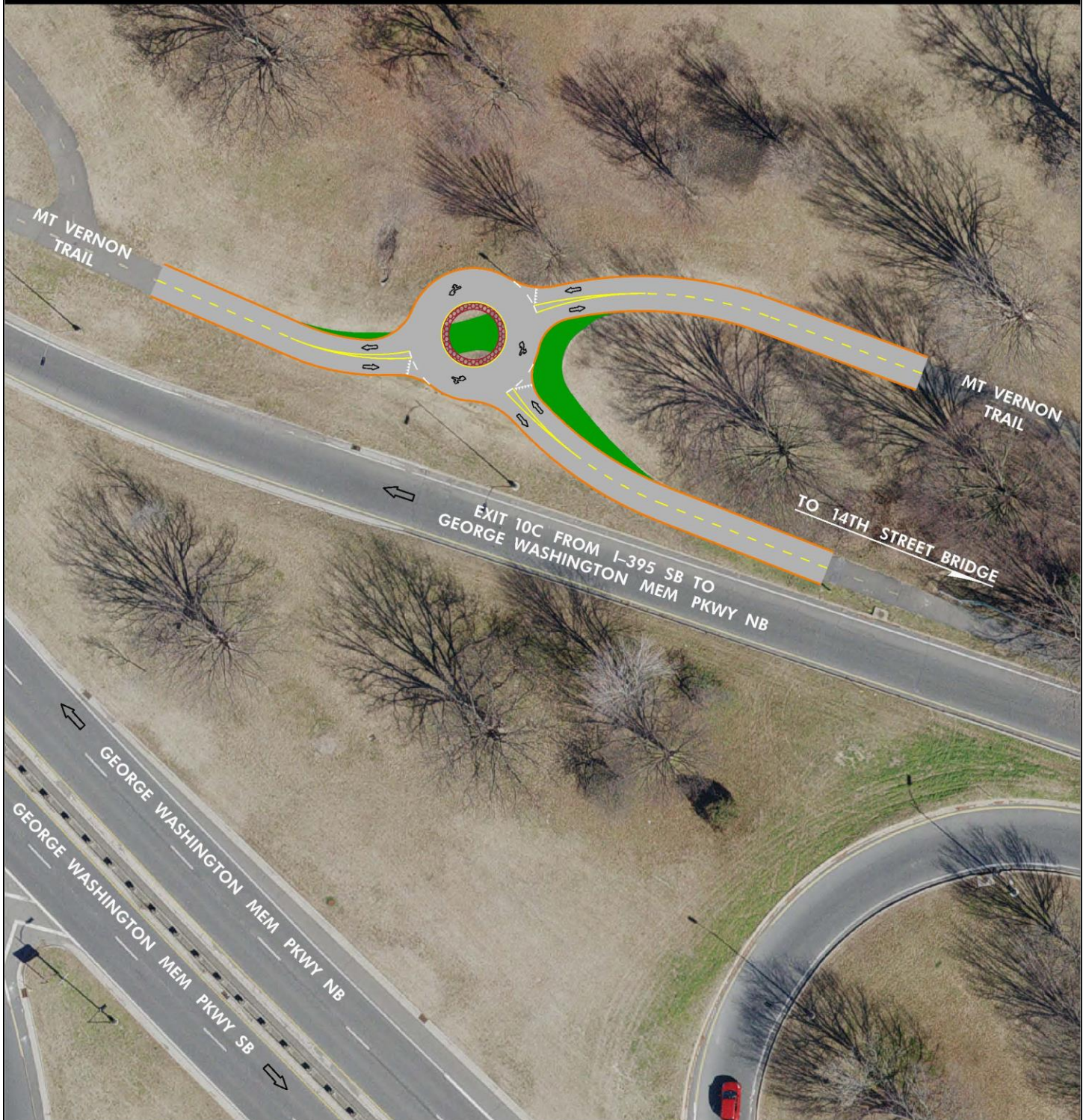


Project:  
George Washington Memorial Parkway South Section and  
Mount Vernon Trail Improvements Plan  
and Environmental Assessment  
Conceptual Roundabout Design – Four Mile Run Trail



Figure 16. Proposed Roundabout Design – Four Mile Run Trail





**Legend**

- |                                 |                         |
|---------------------------------|-------------------------|
| Asphalt pavement reconstruction | Edge line               |
| Curb and gutter                 | Dividing line           |
| Pavement removal                | Yield                   |
| Cobblestone                     | Travel direction arrows |



**Project:**  
George Washington Memorial Parkway South Section and Mount Vernon Trail Improvements Plan and Environmental Assessment  
**Conceptual Roundabout Design – 14th Street Bridge Trail**



Figure 17. Proposed Roundabout Design – 14th Street Bridge Trail





**Legend**

- Asphalt pavement reconstruction
- Proposed Sidewalk
- Pavement removal
- Proposed Restroom
- Dividing line

50' 0 50' 100'

**Project:**  
George Washington Memorial Parkway South Section and Mount Vernon Trail Improvements Plan and Environmental Assessment  
**Conceptual Trail Realignment with Proposed Sidewalk and Restroom – Gravelly Point**



Figure 18. Conceptual Trail Realignment with Proposed Sidewalk and Restroom – Gravelly Point

# **George Washington Memorial Parkway South Section and Mount Vernon Trail Improvements Plan**

**Environmental Assessment**

**Appendix C. Proposed Action Location Mapping**

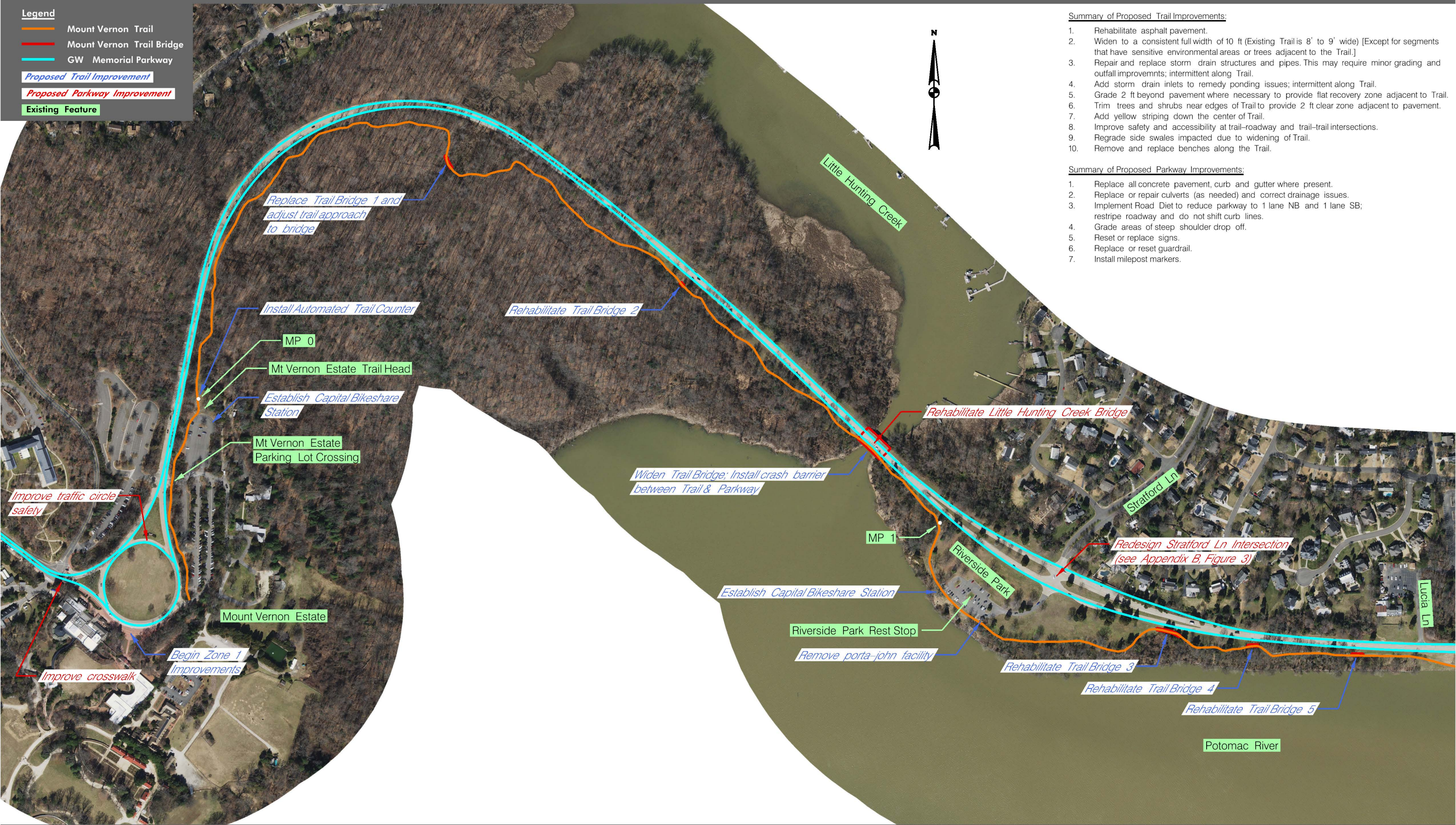


# George Washington Memorial Parkway South Section and Mount Vernon Trail Improvements Plan / Environmental Assessment



**Legend**

- Mount Vernon Trail
- Mount Vernon Trail Bridge
- GW Memorial Parkway
- Proposed Trail Improvement
- Proposed Parkway Improvement
- Existing Feature



**Summary of Proposed Trail Improvements:**

1. Rehabilitate asphalt pavement.
2. Widen to a consistent full width of 10 ft (Existing Trail is 8' to 9' wide) [Except for segments that have sensitive environmental areas or trees adjacent to the Trail.]
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5. Grade 2 ft beyond pavement where necessary to provide flat recovery zone adjacent to Trail.
6. Trim trees and shrubs near edges of Trail to provide 2 ft clear zone adjacent to pavement.
7. Add yellow striping down the center of Trail.
8. Improve safety and accessibility at trail-roadway and trail-trail intersections.
9. Regrade side swales impacted due to widening of Trail.
10. Remove and replace benches along the Trail.

**Summary of Proposed Parkway Improvements:**

1. Replace all concrete pavement, curb and gutter where present.
2. Replace or repair culverts (as needed) and correct drainage issues.
3. Implement Road Diet to reduce parkway to 1 lane NB and 1 lane SB; restripe roadway and do not shift curb lines.
4. Grade areas of steep shoulder drop off.
5. Reset or replace signs.
6. Replace or reset guardrail.
7. Install milepost markers.



# George Washington Memorial Parkway South Section and Mount Vernon Trail Improvements Plan / Environmental Assessment



**Legend**

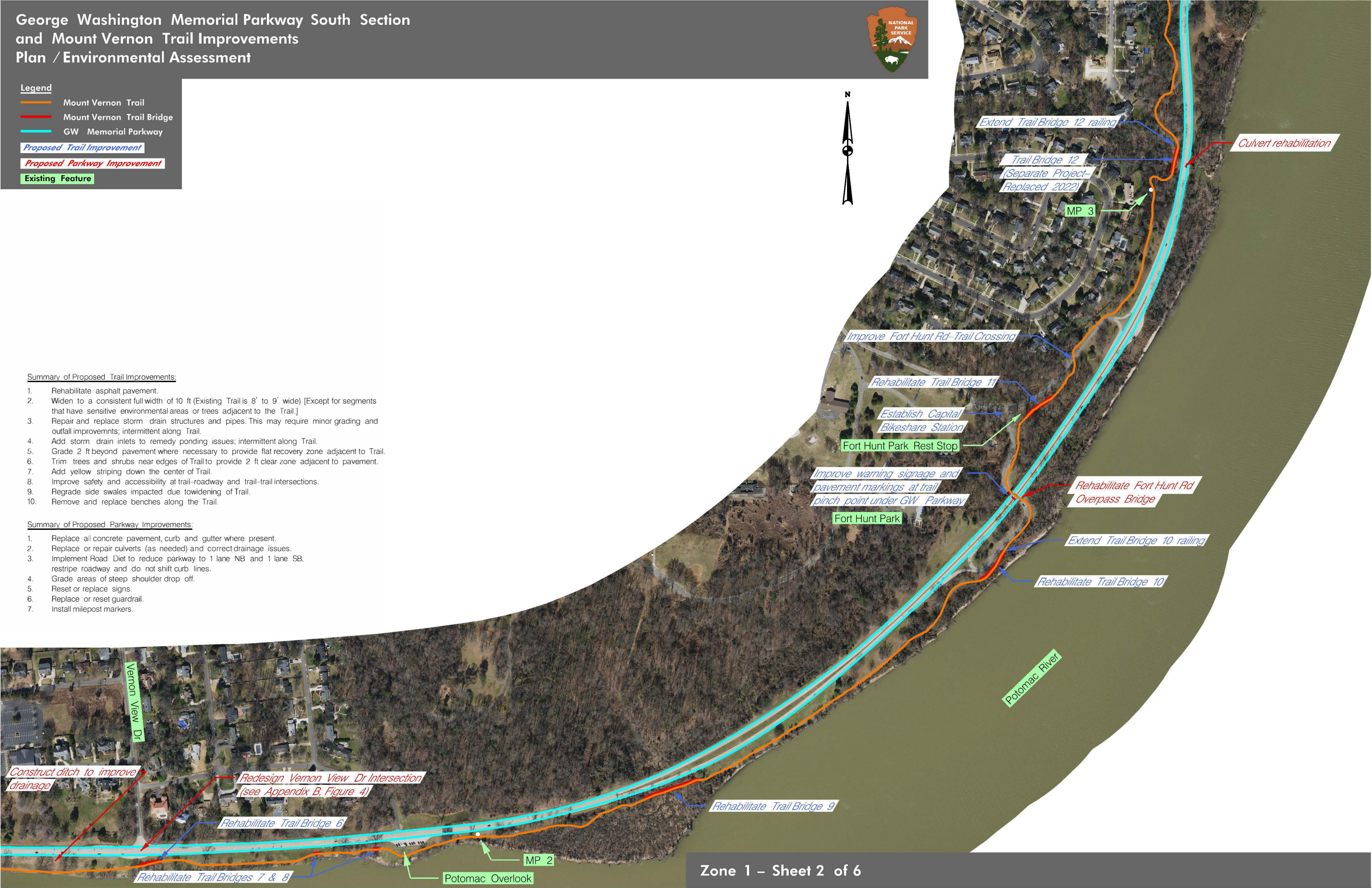
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- Mount Vernon Trail Bridge
- GW Memorial Parkway
- Proposed Trail Improvement
- Proposed Parkway Improvement
- Existing Feature

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*Extend Trail Bridge 12 railing*

*Trail Bridge 12 (Separate Project - Replaced 2022)*

**MP 3**

*Culvert rehabilitation*

*Improve Fort Hunt Rd-Trail Crossing*

*Rehabilitate Trail Bridge 11*

*Establish Capital Bikeshare Station*

**Fort Hunt Park Rest Stop**

*Improve warning signage and pavement markings at trail pinch point under GW Parkway*

**Fort Hunt Park**

*Rehabilitate Fort Hunt Rd Overpass Bridge*

*Extend Trail Bridge 10 railing*

*Rehabilitate Trail Bridge 10*

**Potomac River**

*Rehabilitate Trail Bridge 9*

**Vernon View Dr**

*Construct ditch to improve drainage*

*Redesign Vernon View Dr Intersection (see Appendix B, Figure 4)*

*Rehabilitate Trail Bridge 6*

**MP 2**

**Potomac Overlook**

*Rehabilitate Trail Bridges 7 & 8*

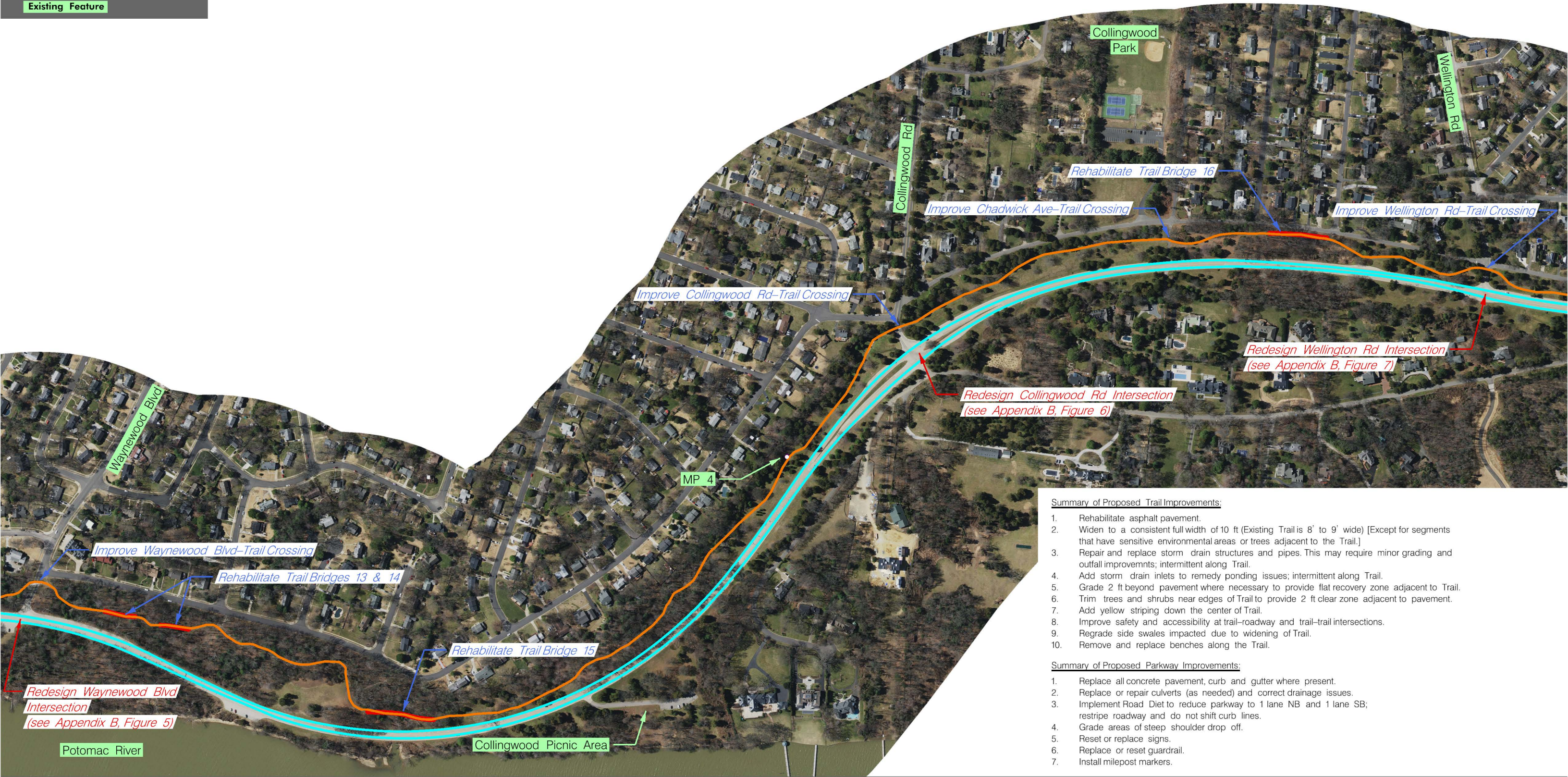


# George Washington Memorial Parkway South Section and Mount Vernon Trail Improvements Plan / Environmental Assessment



**Legend**

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- Mount Vernon Trail Bridge
- GW Memorial Parkway
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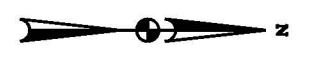


# George Washington Memorial Parkway South Section and Mount Vernon Trail Improvements Plan / Environmental Assessment



**Legend**

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- Mount Vernon Trail Bridge
- GW Memorial Parkway
- Proposed Trail Improvement
- Proposed Parkway Improvement
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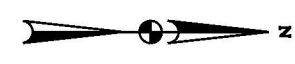


George Washington Memorial Parkway South Section and Mount Vernon Trail Improvements Plan / Environmental Assessment



**Legend**

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- GW Memorial Parkway
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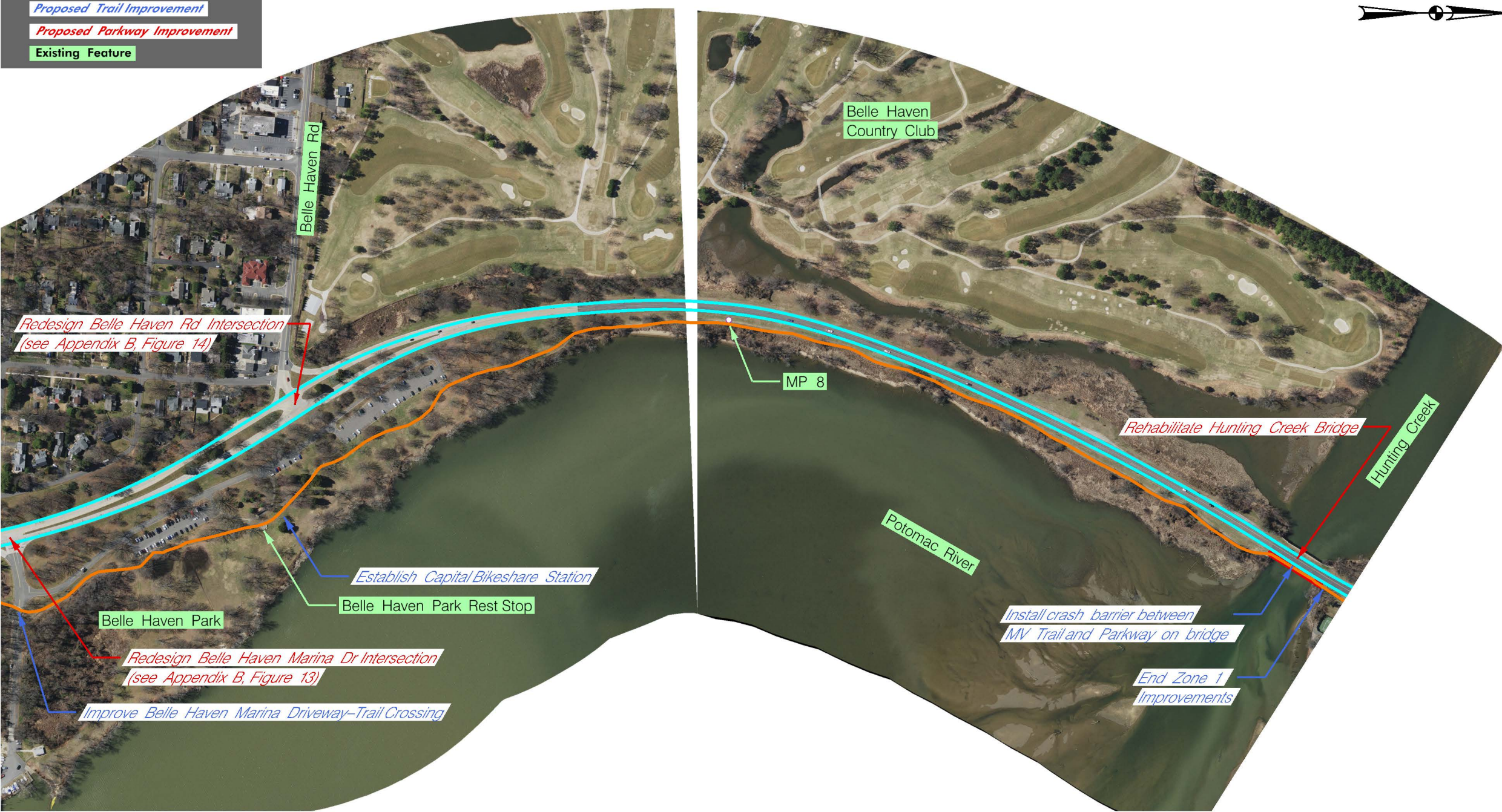




# George Washington Memorial Parkway South Section and Mount Vernon Trail Improvements Plan / Environmental Assessment

**Legend**

- Mount Vernon Trail
- Mount Vernon Trail Bridge
- GW Memorial Parkway
- Proposed Trail Improvement
- Proposed Parkway Improvement
- Existing Feature



**Summary of Proposed Trail Improvements:**

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7. Install milepost markers.



# George Washington Memorial Parkway South Section and Mount Vernon Trail Improvements Plan / Environmental Assessment



- Legend**
- Mount Vernon Trail
  - Mount Vernon Trail Bridge
  - City of Alexandria (No Improvements Proposed)
  - GW Memorial Parkway
  - Proposed Trail Improvement
  - Existing Feature



- Summary of Proposed Trail Improvements:**
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# George Washington Memorial Parkway South Section and Mount Vernon Trail Improvements Plan / Environmental Assessment



- Legend**
- Mount Vernon Trail
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  - City of Alexandria  
(No Improvements Proposed)
  - GW Memorial Parkway
  - Proposed Trail Improvement
  - Existing Feature



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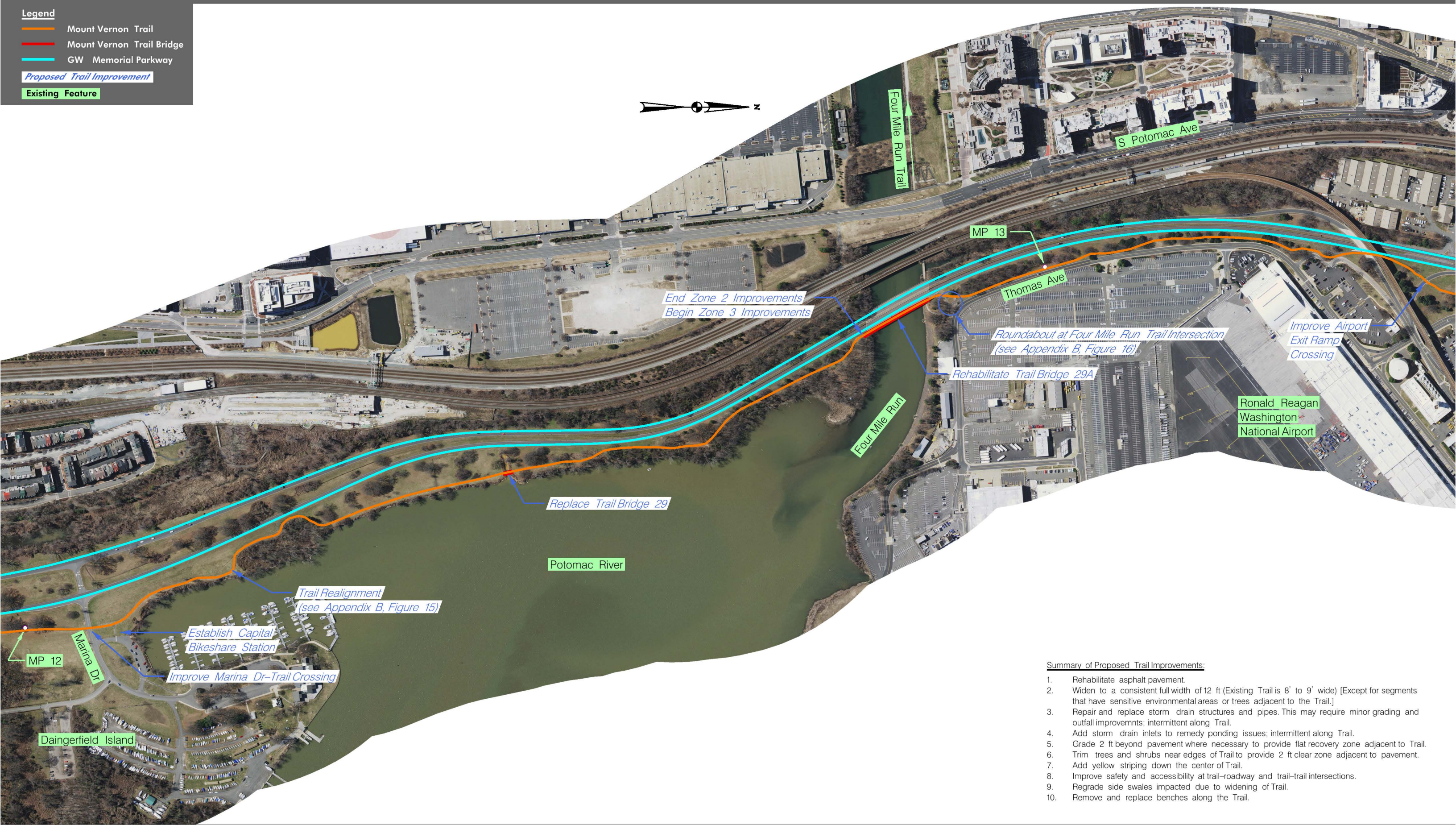


# George Washington Memorial Parkway South Section and Mount Vernon Trail Improvements Plan / Environmental Assessment



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- Mount Vernon Trail
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- Proposed Trail Improvement
- Existing Feature



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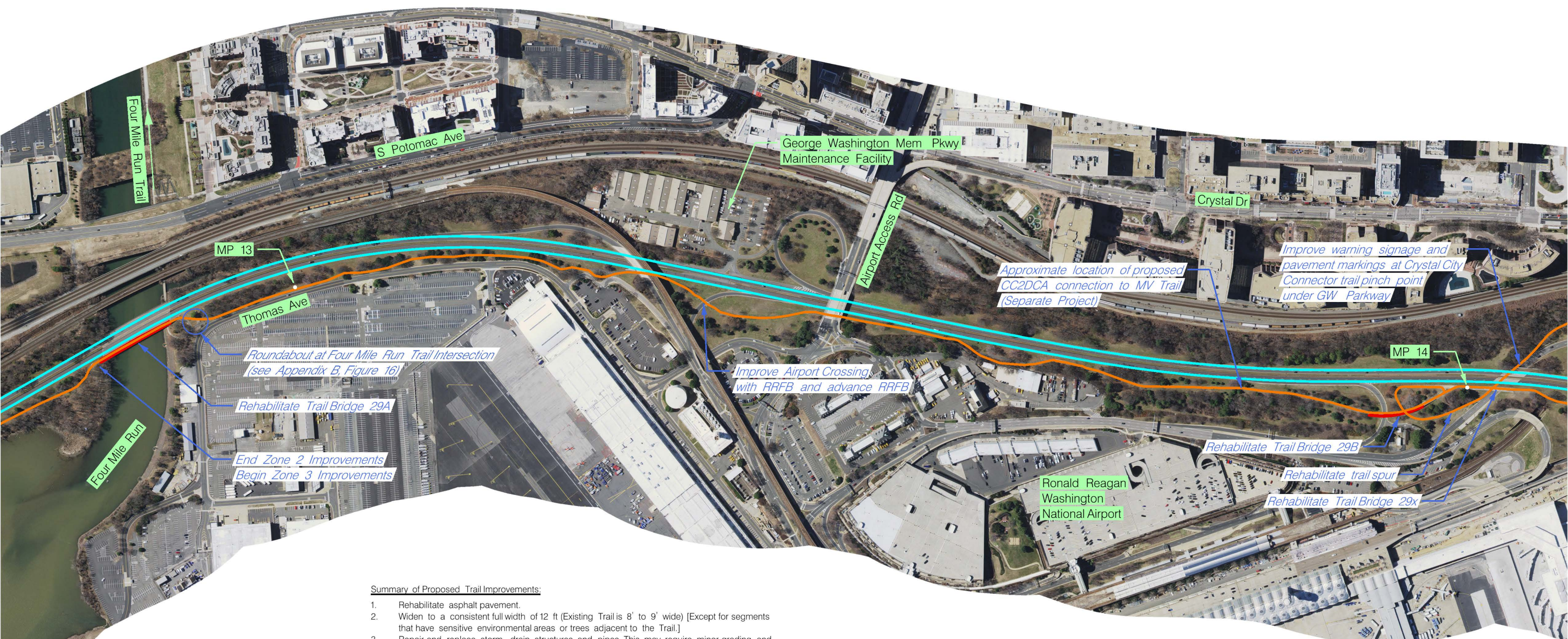
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# George Washington Memorial Parkway South Section and Mount Vernon Trail Improvements Plan / Environmental Assessment



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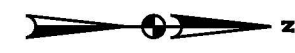




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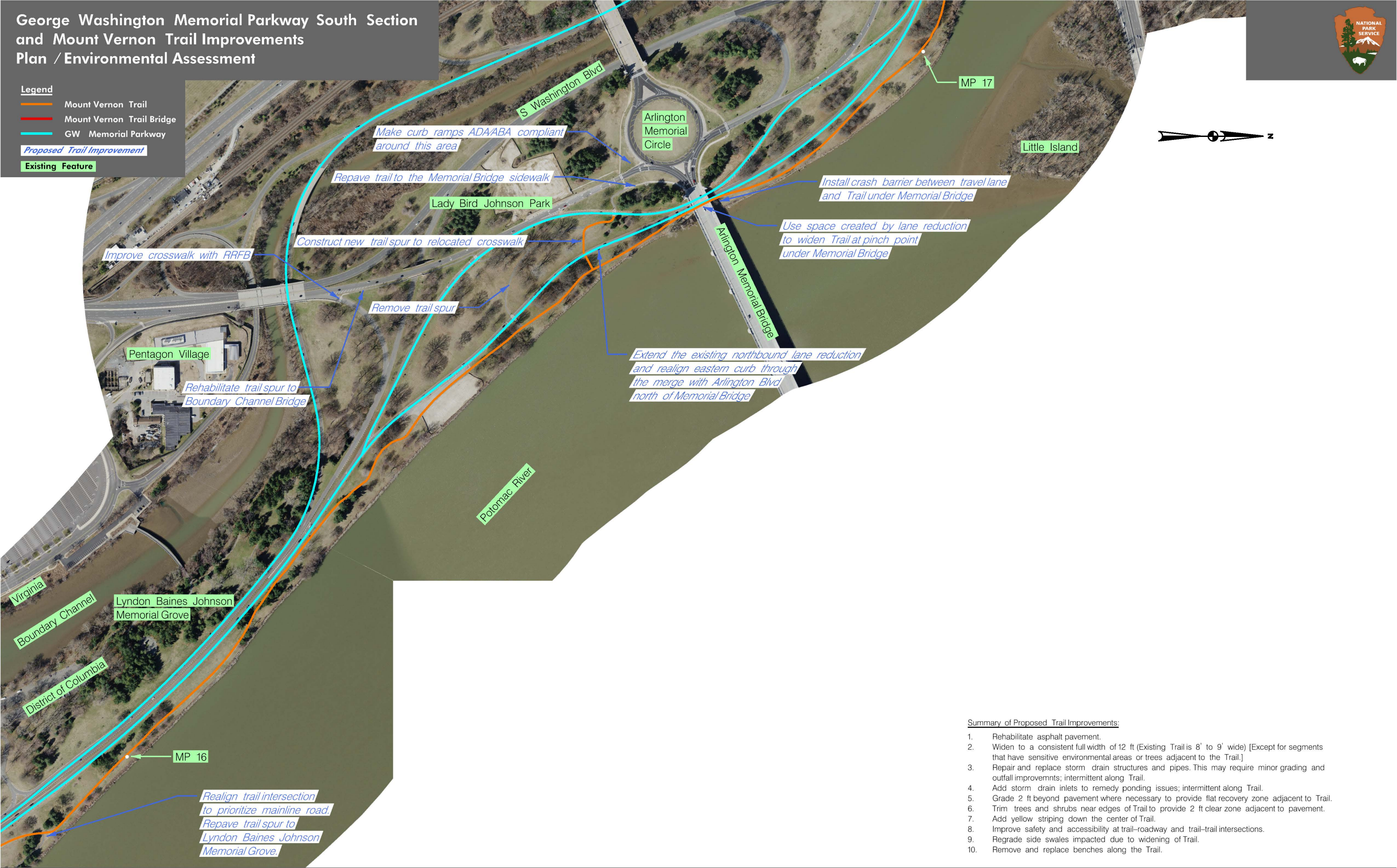




# George Washington Memorial Parkway South Section and Mount Vernon Trail Improvements Plan / Environmental Assessment

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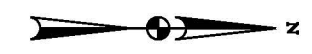


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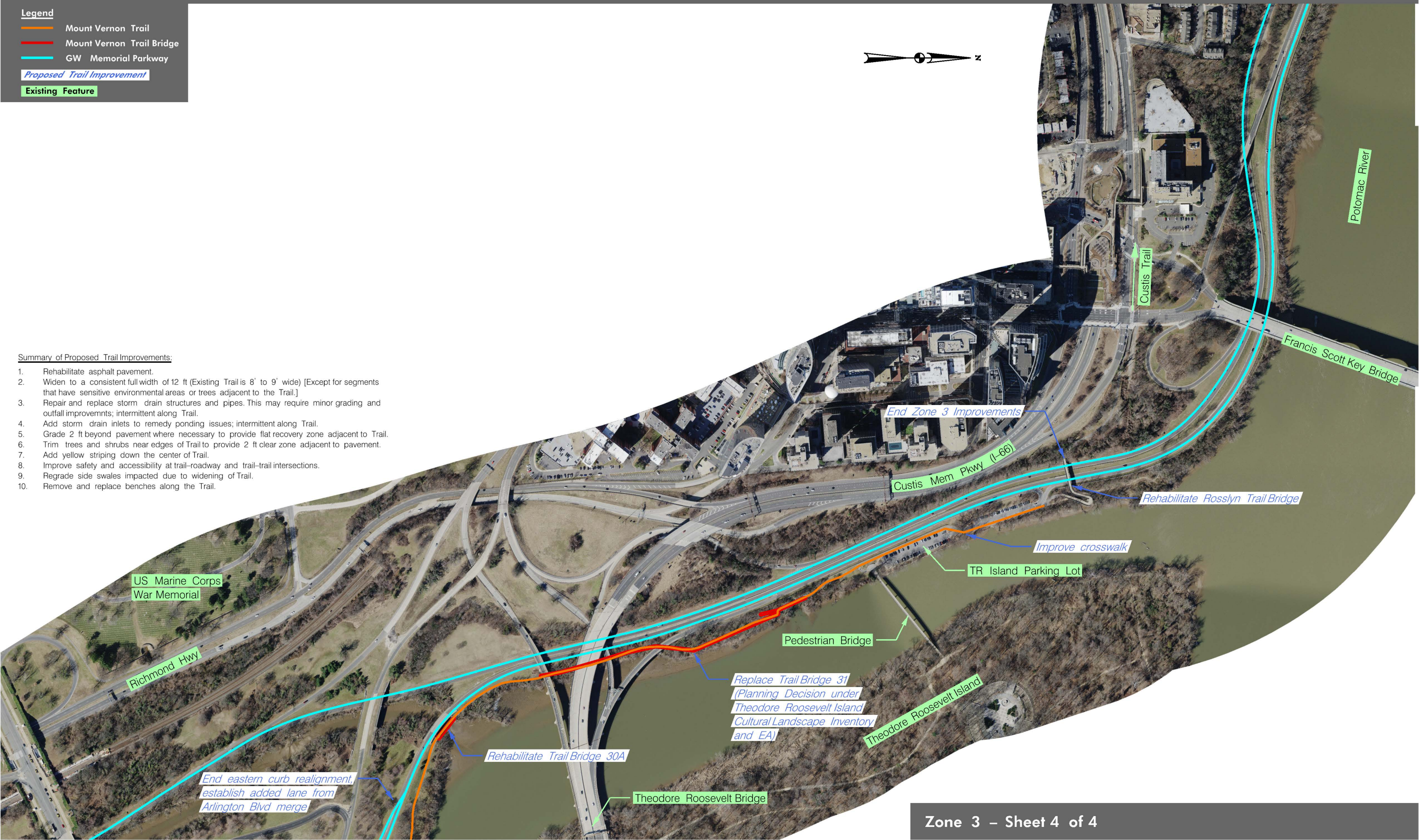
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# George Washington Memorial Parkway South Section and Mount Vernon Trail Improvements Plan

## Environmental Assessment

### Appendix D. Draft Programmatic Agreement

#### **DISCLAIMER**

##### **Section 508 Compliance and Appendices**

At present, the accessibility of appendix materials in compliance with Section 508 of the Rehabilitation Act is quite limited. If you use assistive technology and the format of these pages prevents you from obtaining necessary data, please contact the Office of the Superintendent at [gwmp\\_superintendent@nps.gov](mailto:gwmp_superintendent@nps.gov). Contact the administrator of this website at [pepc\\_helpdesk@nps.gov](mailto:pepc_helpdesk@nps.gov) for other technical assistance.

**DRAFT**  
**PROGRAMMATIC AGREEMENT**  
**AMONG**  
**THE NATIONAL PARK SERVICE,**  
**THE NATIONAL CAPITAL PLANNING COMMISSION,**  
**AND**  
**THE VIRGINIA DEPARTMENT OF HISTORIC RESOURCES,**  
**REGARDING**  
**THE GEORGE WASHINGTON MEMORIAL PARKWAY SOUTH SECTION AND**  
**MOUNT VERNON TRAIL IMPROVEMENTS PLAN**

This Programmatic Agreement (hereinafter Agreement) is entered into this \_\_\_\_\_ day of \_\_\_\_\_, 2023, by and between the NATIONAL PARK SERVICE (hereinafter NPS), the NATIONAL CAPITAL PLANNING COMMISSION (hereinafter NCPC), and the VIRGINIA DEPARTMENT OF HISTORIC RESOURCES STATE HISTORIC PRESERVATION OFFICER (hereinafter VA SHPO).

**WHEREAS**, George Washington Memorial Parkway (hereafter GWMP), a unit of the NPS located in Fairfax and Arlington counties in Virginia, and the District of Columbia (hereinafter Washington, DC), operates, manages, administers, maintains, preserves, and interprets, unimpaired, the historic properties of GWMP for the enjoyment of future generations; and

**WHEREAS**, GWMP was established pursuant to what is known as the Capper-Cramton Act, Public Law 71-284, 46 Stat. 482, (May 29, 1930) for purposes “to include the shores of the Potomac, and adjacent lands, from Mount Vernon to a point above the Great Falls on the Virginia side, including the protection and preservation of the natural scenery of the Gorge and the Great Falls of the Potomac,” and became a unit of the NPS system pursuant to Executive Order 6166 on June 10, 1933 (taking effect August 10, 1933), and GWMP is administered by the NPS; and

**WHEREAS**, the NPS is charged in its administration of the units of the National Park System to meet the directives of other laws, regulations, and policies including the NPS Organic Act as codified in Title 54 United States Code (USC) 100101(a) to “conserve the scenery, natural and historic objects, and wild life in such manner and by such means as will leave them unimpaired for the enjoyment of future generations;” and

**WHEREAS**, the NCPC has approval authority over federal projects within the National Capital Region pursuant to the National Capital Planning Act (40 USC 8722(b)(1) and (d)), and based on the approval authority, as a participant in the Section 106 process, is identified as an *Agency official* pursuant to 36 CFR Part 800.2(a), [and this approval would constitute an Undertaking as defined in 36 CFR 800.16(y)]; and

**WHEREAS**, the NPS and NCPC have agreed that NPS will be the federal *Lead Federal Agency* pursuant to 36 CFR 800.2(a)(2) for the Undertaking to fulfill their collective Section 106 responsibilities; and NCPC has elected to fulfill its Section 106 responsibilities by participating in this consultation and shall be a Signatory to this PA pursuant to 36 CFR 800.6(c)(1); and

**WHEREAS**, the NPS, in cooperation with NCPC, is developing a George Washington Memorial Parkway (hereinafter Parkway) South Section and Mount Vernon Trail (hereinafter Trail) Improvements Plan (hereinafter Plan) to guide future actions to improve the 8.3-mile south section of Parkway from

PROGRAMMATIC AGREEMENT  
GEORGE WASHINGTON MEMORIAL PARKWAY SOUTH SECTION AND  
MOUNT VERNON TRAIL IMPROVEMENTS PLAN

Alexandria, Virginia, to Mount Vernon, and the majority of the 18-mile Trail, excluding Trail sections in Alexandria, while maintaining the scenic and historic character of historic properties; and

**WHEREAS**, implementing the Plan would improve safety and address maintenance needs. Proposed Parkway and Trail improvements would enhance the visitor experience for drivers, pedestrians, and cyclists. Improvements include, but are not limited to, reconstruction of the concrete road surface, implementation of a new road diet (reducing lanes through pavement striping to improve safety) in some areas, bridge rehabilitation, crosswalks designed in accordance with the Public Rights-of-Way Accessibility Guidelines and the Architectural Barriers Act Accessibility Standards, intersection safety improvements, drainage improvements, and stormwater management. Safety enhancements for the Trail include, but are not limited to, trail widening, trail-road intersection safety improvements, bridge repair or replacement, drainage improvements, and amenity upgrades; and

**WHEREAS**, pursuant to 36 CFR 800.3(a) the Plan meets the definition of an “Undertaking” (36 CFR 800.16(y)), that has the potential to cause effects on historic properties (as defined in 36 CFR 800.16(l)(1)), and the Undertaking is subject to review under application sections of the National Historic Preservation Act (hereinafter NHPA) as amended (54 USC 300101 et seq.), including sections 106, 110(f), 111(a), and 112, and the regulations of the Advisory Council on Historic Preservation (hereinafter ACHP) (36 CFR 800); and

**WHEREAS**, the NPS is coordinating review with the National Environmental Policy Act (hereinafter NEPA) (42 USC § 4321 *et seq.*), and NPS is the lead Federal agency preparing an Environmental Assessment (hereinafter EA). NPS has coordinated Section 106 compliance with the NEPA process pursuant to 36 CFR § 800.8; and

**WHEREAS**, pursuant to 36 CFR 800.3(c)(3), NPS initiated consultation for the Plan with the Virginia Department of Historic Resources, which is the Virginia State Historic Preservation Office (hereinafter VA SHPO) and the District of Columbia State Historic Preservation Officer (hereinafter DC SHPO), in a letter dated November 4, 2022 (attached hereto as Appendix A); and

**WHEREAS**, pursuant to 36 CFR § 800(2)(a)(4), the NPS has invited individuals and organizations with a demonstrated interest in the Plan to participate as Consulting Parties in the Section 106 process in a letter dated November 4, 2022 (Appendix A), with the full list of invited Consulting Parties compiled in Appendix B; and

**WHEREAS**, the NPS invited federally recognized Native American Indian Tribes: Pamunkey Indian Tribe, Upper Mattaponi Indian Tribe, Rappahannock Tribe, Nansemond Indian Nation, Chickahominy Indian Tribe, Chickahominy Tribe Eastern Division, Monacan Indian Nation, Catawba Indian Nation, Delaware Nation, Absentee Shawnee Tribe of Indians of Oklahoma, and the Shawnee Tribe (herein collectively referred to as Tribes) to participate in government-to-government consultation in the Section 106 process in letters dated November 4, 2022, pursuant to 36 CFR 800(3)(f)(2); and

**WHEREAS**, the Delaware Nation accepted the NPS invitation to participate as a consulting party in a letter dated November 21, 2022; and

**WHEREAS**, the Monacan Indian Nation and Shawnee Tribe declined to participate as consulting parties; and

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**WHEREAS**, the Pamunkey Indian Tribe, Upper Mattaponi Indian Tribe, Rappahannock Tribe, Nansemond Indian Nation, Chickahominy Indian Tribe, Chickahominy Tribe Eastern Division, Catawba Indian Nation, and the Absentee Shawnee Tribe of Indians of Oklahoma have not responded to this invitation; and

**WHEREAS**, the NPS determined the Undertaking's Area of Potential Effect (APE), pursuant to 36 CFR 800.4(a)(1) in the letter dated November 4, 2022, and subsequently adjusted the APE boundaries following comments received from consulting parties (refer to Appendix C); and

**WHEREAS**, the NPS reviewed existing information on historic properties within the APE pursuant to 36 CFR 800.4(a)(2) and found that the portion of GWMP from Arlington Memorial Bridge south to Mount Vernon was listed in the National Register of Historic Places (NRHP) in 1981 as the "Mount Vernon Memorial Highway" (MVMH); the northern section of GWMP, from Arlington Memorial Bridge north to I-495, was listed in the NRHP in 1995 under the name "George Washington Memorial Parkway" (hereafter GW Parkway historic property); the Mount Vernon Trail had been determined to be a contributing resource to the listed Mount Vernon Memorial Highway historic property via consensus determinations in the 2022 Cultural Landscape Inventory (CLI); and several other historic properties are within or immediately adjacent to the Undertaking's APE as identified in the Assessment of Effects report attached hereto as Appendix C; and

**WHEREAS**, the NPS completed a Phase IA archeological summary that established the potential for archeological resources within the APE and the need to conduct phased identification and evaluation of archeological resources, per 36 CFR 800.4(b)(2), as specifically provided for in a programmatic agreement pursuant to 36 CFR 800.14(b); and

**WHEREAS**, the NPS has applied the criteria of adverse effect as provided for in 36 CFR 800.5(a), and determined that historic properties would potentially be adversely affected, chiefly due to the planned ground disturbing activities within the project's APE that may affect eligible archeological resources; and

**WHEREAS**, the Plan calls for the rehabilitation of the Parkway South Section and Trail, elements of which have yet to be designed, and should designs not be in adherence to the Secretary of the Interior's *Standards for the Treatment of Historic Properties* (SOI Treatment Standards), could diminish the design and aesthetic character of the MVMH and GW Parkway historic properties; and

**WHEREAS**, NPS determined that it is appropriate to enter into this Agreement to establish a consultation process for the implementation of the Plan to conduct phased identification and evaluation, per 36 CFR 800.4(b)(2), and to avoid, minimize, or mitigate potential adverse effects pursuant to 36 CFR 800.14(b)(3), which will satisfy NPS's and NCPC's obligation to comply with Section 106; and

**WHEREAS**, the VA SHPO concurred with the determination of effect and plans to enter into this Agreement in a letter dated September 1, 2023, and the DC SHPO concurred in correspondence dated August 9, 2023 and September 18, 2023 (Appendix A); and

**WHEREAS**, the NPS made the draft Agreement available to the Tribes, Consulting Parties, and the public for review and comment, pursuant to 36 CFR 800.6 by appending it to the EA prepared in accordance with NEPA that was made available for public review for a period of 30-days from September 25, 2023 to October 24, 2023; and

**WHEREAS**, members of the public were afforded opportunities to participate in project planning and to comment on the Undertaking during a public scoping period from December 6, 2022 to January 18,



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2023, which included a virtual public meeting held on December 6, 2022, and a stakeholder meeting held in advance of scoping on December 2, 2022; during public review of the EA from September 25, 2023, to October 24, 2023; and at a Section 106 Consulting Parties meeting held virtually on August 9, 2023; and

**WHEREAS**, the NPS will notify the Advisory Council on Historic Preservation (hereinafter ACHP) of the intention to develop an Agreement pursuant to 36 CFR 800.14(b)(1)(ii) and invite the ACHP to participate in consultation, and the ACHP has [accepted/declined] to participate; and

**WHEREAS**, the DC SHPO declined to become a signatory of this PA in correspondence dated September 18, 2023 (Appendix A); and

**NOW, THEREFORE**, the NPS, NCPC, and VA SHPO, (hereinafter collectively referred to as Signatories, and singularly as Signatory) agree that the Plan shall be implemented in accordance with the following stipulations to take into account the potential effects on historic properties listed, or eligible for listing, in the NRHP.

### STIPULATIONS

The NPS shall ensure the following measures are carried out:

#### I. GENERAL REQUIREMENTS

**Applicable Codes and Standards.** The Undertaking shall be planned, developed, and executed by the NPS in consideration of the recommended approaches contained in the SOI Treatment Standards (i.e., preservation, rehabilitation, restoration, and reconstruction) and Guidelines for the Treatment of Cultural Landscapes, and other prevailing applicable codes. All archeological investigations and studies conducted pursuant to this Agreement shall be consistent with the Secretary of the Interior's *Standards and Guidelines for Archeology and Historic Preservation* (48 Federal Register 44716-44742, September 1983), the ACHP's *Section 106 Archeology Guidance* (June 2007), *Guidelines for Conducting Historic Resources Survey in Virginia* (September 2017), and / or the DC SHPO's *Guidelines for Archaeological Investigations in the District of Columbia* (DC Historic Preservation Review Board 2018).

**Qualifications.** The NPS shall ensure that all historic preservation and / or archeological work performed on its behalf pursuant to this Agreement shall be accomplished by, or under the direct supervision of a person or persons who meet(s) or exceed(s) the pertinent qualifications in the Secretary of the Interior's *Professional Qualifications Standards* (48 Federal Register 44716, 44738 (Sept. 29, 1983) or subsequent adopted modifications of the *Standards* at the time of the action.

#### II. CONSULTATION

The NPS shall consult with the Signatories to this Agreement in carrying out its terms. Such consultation may include, but not be limited to, written correspondence, virtual meetings or conference calls, face-to-face visits and / or field visits.

#### III. DESIGN REVIEW

A. Given that the Plan is likely to be a design-build effort, the NPS anticipates that Plan implementation will be phased. The NPS will provide the Signatories and other Consulting Parties with advance notification when funding for design is allocated and design review is to be initiated.

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- B. The NPS will provide an opportunity for design review of Parkway and Trail improvement plans to the Signatories and other Consulting Parties for review and comment at major design milestones. If the design is phased, design documents will be submitted for design review at each major milestone. The design drawings and associated documents will include sufficient plans, cross-sections, material and finish specifications, and renderings to convey the visual effects of the infrastructure improvements on historic properties. The rehabilitation designs for the Plan are to adhere to the SOI Treatment Standards to the greatest extent possible and, as needed, will replace the existing elements in kind to maintain the historic design and aesthetic.
- C. The Signatories and other Consulting Parties agree to provide their comments to the NPS within 30 days from the date of receipt of a design submission. The NPS will take all comments received in a timely manner into account before completing final design documents. The NPS shall provide responses to Signatory and Consulting Party comments and shall document changes made to the design in response to the comments. The goals of the design review consultation shall be to maximize consistency with the SOI Treatment Standards and to develop and evaluate modifications that avoid adverse effects per 36 CFR 800.6(a). If no comments are received within the 30-day period, the NPS may assume that the non-responding party has no comments, and they may implement the designs as proposed.
- D. If NPS and the Signatories cannot come to an agreement on design aspects of the Parkway and Trail improvements, especially the design of rehabilitated or reconstructed elements, the Dispute Resolution process outlined in **Stipulation VII.A** of this Agreement shall be followed.
- E. If any Signatory to this Agreement determines that designs will constitute a previously unidentified adverse effect, that Signatory shall notify all other Signatories in writing and NPS shall consult with all Signatories to seek ways to avoid, minimize, or mitigate the new adverse effect.
  - 1. NPS shall review designs and identify changes that could avoid the new adverse effect. If revisions to designs are made, the NPS shall submit the revised designs to the Signatories. Signatories shall have 30 calendar days to comment on revised designs. Review of designs shall proceed as outlined in **Stipulation III.C** of this Agreement.
  - 2. If new adverse effects cannot be avoided, the NPS will consult with the Signatories and Consulting Parties to identify agreed upon measures to minimize or mitigate the newly identified adverse effects. These measures shall be incorporated into a subsequent design submittal or developed as a standalone submission.
  - 3. The measures agreed upon to resolve adverse effects shall be documented in an appendix and amended to this PA, following Stipulation VII.D.

**IV. ARCHEOLOGICAL RESOURCES IDENTIFICATION AND EVALUATION**

- A. The NPS, in consultation with the Signatories and other Consulting Parties, will continue identification and evaluation of archeological historic properties in accordance with 36 CFR 800.4 and 800.5.
- B. Prior to final design development at each phase of the Plan, the NPS will complete a Phase IB archeological investigation (Phase IB). The NPS shall consult with the VA SHPO and / or DC SHPO (depending on jurisdiction) and other appropriate Consulting Parties on the development of Phase IB archeological work plans. No archeological investigations shall be conducted without VA SHPO and / or DC SHPO-review of archeological work plans. Phase IB investigations will build upon the findings and recommendations of the *Phase IA Archaeological Overview for the Proposed Rehabilitation of the George Washington Memorial Parkway (South Section) and Mount Vernon Trail (New South*

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Associates, Inc., 2023), and any other subsequent archeological assessments conducted within the APE. The NPS will prepare and submit a technical document containing the results of the Phase IB investigations to the Signatories and other Consulting Parties for review.

- C. If archeological sites are identified during the Phase IB investigations, the NPS shall evaluate opportunities to revise designs to avoid these sites. However, if all reasonable opportunities are evaluated and avoidance is not feasible, the NPS will complete one or more Phase II survey(s), as appropriate, prior to ground disturbing activities to evaluate the NRHP-eligibility of any intact archeological resources that may be affected by Plan implementation. The NPS shall consult with the VA SHPO and / or DC SHPO and other Consulting Parties on the development of Phase II archeological work plans. The NPS will prepare and submit technical document(s) containing the results of each Phase II survey, together with determinations of NRHP eligibility and an assessment of effects on archeological historic properties to the Signatories and other Consulting Parties to review.
- D. The NPS shall provide the technical result documents to the Signatories and other Consulting Parties in electronic or print format, as requested, for a 30-day review and comment period starting upon receipt. The NPS shall address all comments received within the 30-day review period and provide final reports in an agreement upon format. If no comments are received within the 30-day review period, the NPS shall assume that the non-responding party has no comments and concurs with the findings and recommendations of the report / document. If the VA SHPO and / or DC SHPO concur with the recommendations, the NPS shall proceed with implementation of the recommendations. If the VA SHPO and / or DC SHPO do not concur, the parties shall consult further to resolve the issues following the provisions for dispute resolution in **Section VII.A** of this Agreement.
- E. If adverse effects to NRHP-eligible archeological historic properties are identified, the NPS, in consultation with the Signatories and other Consulting Parties, will do one of the following:
  - 1. Propose a minimization and data recovery plan (Phase III investigations) or commensurate strategy agreed upon by the NPS, VA SHPO, and / or DC SHPO; or
  - 2. Depending upon the extent of the resource(s) identified and affected, propose a resource-specific amendment to this Agreement to resolve adverse effects to archeological historic properties. The amendment may address multiple archeological historic properties.
- F. The NPS shall consult with the VA SHPO and / or the DC SHPO and other Consulting Parties to develop any Phase III archeological data recovery work plan(s). No Phase III (data recovery) investigations shall be conducted without a VA SHPO and / or DC SHPO-reviewed archaeological data recovery plan.
- G. Timing of all phases of archeological investigation will be determined in consultation with the VA and / or DC SHPO and, when agreed upon, may include investigations concurrent with construction activities.

**V. POST REVIEW DISCOVERIES**

- A. The NPS shall ensure that all construction documents include the following provisions:
  - 1. If previously unidentified historic properties or unanticipated effects to historic properties are discovered in the park during construction, the construction contractor shall immediately halt all activity within a 100-foot radius of the discovery, notify the NPS within 24 hours of the discovery, and implement interim measures to protect the discovery from looting and vandalism.
  - 2. Immediately following upon NPS' receipt of the notification the NPS shall

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- a) inspect the construction site to determine the extent of the discovery and ensure that construction activities have halted;
  - b) clearly mark the area of the discovery;
  - c) implement additional measures, as appropriate, to protect the discovery from looting and vandalism;
  - d) have an archeologist meeting *Secretary of the Interior's Professional Qualifications Standards for Archeologists* inspect the construction site to determine the extent of the discovery and provide recommendations regarding its NRHP eligibility and treatment; and
  - e) notify the VA SHPO and / or DC SHPO and other Consulting Parties of the discovery describing the measures that have been implemented to comply with **Stipulation V.A.** Information will be shared with the VA SHPO and / or DC SHPO and other Consulting Parties, as appropriate and in conformance with the Archeological Resources Protection Act (hereinafter ARPA) and NHPA Section 304.
3. Within 48 hours of NPS' receipt of the notification described in **Stipulation V.A.1** of this Agreement, the NPS shall provide the VA SHPO and / or DC SHPO and other Consulting Parties with its assessment of the NRHP eligibility of the discovery and the measures the NPS proposes to take to resolve adverse effects. In making its official evaluation, the NPS, in consultation with the VA SHPO and / or DC SHPO and other Consulting Parties may assume the discovery to be NRHP-eligible for the purposes of Section 106 pursuant to 36 CFR 800.13(c). The VA SHPO and / or DC SHPO and other Consulting Parties shall respond within 48 hours after their receipt of NPS' submission of its official evaluation.
  4. The NPS, which shall take into account the consulting parties' recommendations on eligibility and treatment of the discovery, shall ensure that appropriate actions are carried out and provide the VA SHPO and / or DC SHPO and the other Consulting Parties with a report on these actions when they have been implemented.
  5. Construction activities may proceed in the area of the discovery when the NPS has determined that implementation of the actions undertaken to address the discovery pursuant to **Stipulation V.A** are complete.

## VI. HUMAN REMAINS

- A. The NPS shall make all reasonable efforts to avoid disturbing gravesites and associated funerary artifacts. The NPS shall treat all human remains in a manner consistent with the ACHP's "*Policy Statement on Burial Sites, Human Remains and Funerary Objects*" (March 1, 2023; [PolicyStatementonBurialSitesHumanRemainsandFuneraryObjects30June2023.pdf \(achp.gov\)](#)) or ACHP policy in effect at the time remains and funerary artifacts are handled. Information will be shared with the VA SHPO and / or DC SHPO and other Consulting Parties, as appropriate and in conformance with ARPA and NHPA Section 304.
  1. The NPS shall halt work immediately and contact law enforcement and emergency personnel as appropriate if human remains are discovered.
  2. If the remains found on federal lands are determined to be of Native American origin, the NPS shall comply with the provisions of the Native American Graves Protection and Repatriation Act (25 USC 3001 et seq.) and the accompanying regulations at 43 CFR 10.
  3. If the remains found on federal lands and are determined not to be of Native American origin, the NPS shall comply with the appropriate regulations and agency policy.



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4. If the remains are found on non-federal lands, the NPS shall comply with the appropriate regulations established by the Commonwealth of Virginia or Washington, DC.
5. The NPS shall use reasonable efforts to ensure that the general public is excluded from viewing any burial site or associated funerary artifacts. Subject to applicable law, the VA SHPO and / or DC SHPO and other Consulting Parties to this Agreement shall release no photographs or images of any burial site or associated funerary artifacts to anyone including the press and general public. If they do release such photographs or images, accidentally, voluntarily, or pursuant to applicable law, they will notify the NPS and the other parties as soon as possible. The NPS shall notify the appropriate federally recognized tribes when burials, human skeletal remains, or funerary artifacts are encountered on the project.

## VII. ADMINISTRATION

- A. **Dispute Resolution.** Should any Signatory object in writing to NPS regarding any actions proposed, or the manner in which the terms of this Agreement are implemented, the NPS, NCPC, and VA SHPO shall consult to resolve the objection. If NPS determines that such objection(s) cannot be resolved through this consultation, the NPS will:
  1. Forward all documentation relevant to the dispute to the ACHP and the Signatories in accordance with 36 CFR 800.2(b)(2). Upon receipt of adequate documentation, the ACHP shall review and advise the NPS on the resolution of the objection. Any comments provided by the ACHP will be taken into account by NPS in reaching a final decision regarding the dispute.
  2. If the ACHP does not provide comments regarding the dispute within 30 days after receipt of adequate documentation, the NPS may render a decision regarding the dispute. In reaching its decision, the NPS will consider all comments regarding the dispute from the Signatories.
  3. The responsibility of NPS to carry out all other actions subject to the terms of this Agreement that are not the subject of the dispute remain unchanged. The NPS will notify all parties of its decision in writing before implementing that portion of the project subject to dispute under this stipulation. The NPS will then proceed according to their final decision.
  4. At any time during implementation of the measures stipulated in this Agreement, should an objection pertaining to this Agreement or the effect of implementing that portion of the project on historic properties be raised by a member of the public, the NPS shall notify the Signatories and Consulting Parties and attempt to resolve the objection. If NPS determines that the objection cannot be resolved, the NPS shall comply with **Stipulation VII.A.1-3** of this Agreement.
- B. **Anti-Deficiency Act.** The NPS obligations under this Agreement are subject to the availability of appropriated funds, and the stipulations of this Agreement are subject to the provisions of the Anti-Deficiency Act. The NPS shall make reasonable and good faith efforts to secure the necessary funds to implement this Agreement in its entirety. If compliance with the Anti-Deficiency Act alters or impairs the ability of the NPS to implement the stipulations of this Agreement, the NPS shall consult in accordance with the amendment and termination procedures found later in this Agreement.
- C. **Termination.** If any Signatory to this Agreement determines that its terms will not or cannot be carried out, that party shall immediately consult with the other Signatories to attempt to develop an amendment per **Stipulation VII.D** within 30 calendar days (or another period agreed to by all Signatories). If an amendment cannot be reached, any Signatory may terminate the Agreement upon written notification to the other Signatories. Should the Agreement be terminated, the NPS shall either consult in accordance with 36 CFR 800.14(b) to develop a new Agreement or comply with 36 CFR 800 for individual undertakings.

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- D. **Amendments.** This Agreement may be amended when such an amendment is agreed to in writing by the NPS, NCPC, and the VA SHPO. The amendment will be effective on the date of the last signature.
- E. **Duration.** This Agreement will terminate fifteen (15) years from the date of execution. Twelve (12) months prior to such time, the NPS may consult with the Signatories to reconsider the terms of the Agreement and revise or amend or extend the document as necessary.
- F. **Entire Agreement.** This Agreement is the complete and exclusive agreement between the Signatories regarding the subject matter hereof and supersede any other prior oral or written communications or understandings between the NPS, NCPC, and the VA SHPO related to the subject matter hereof.
- G. **Counterparts.** This Agreement may be executed in several original counterparts, each of which shall be an original and all which counterparts taken together shall constitute one and the same agreement. Signatures to this Agreement transmitted by electronic means (including, without limitation, via .pdf) shall be valid and effective to bind the party so signing. Each Signatory agrees to promptly deliver an execution original to this Agreement with its actual signature to the other Signatories, but a failure to do so shall not affect the enforceability of this Agreement.
- H. **Electronic Copies.** Within one week of the last signature on this Agreement, NPS shall provide each Signatory with one high quality, legible, full color, electronic copy of this fully executed Agreement and all of its attachments fully integrated into one, single document. Internet links shall not be used as a means to provide copies of attachments since links to web-based information often change. If the electronic copy is too large to send by email, NPS shall provide each Signatory with a copy of this Agreement as described above on a compact disc or other suitable electronic means.

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**EXECUTION** of this Agreement by the NPS, NCPC, and the VA SHPO, and implementation of its terms, is evidence that the NPS and NCPC have taken into account the effects of this Undertaking on historic properties and afforded the ACHP a reasonable opportunity to comment, and thereby satisfied their Section 106 responsibilities.

By signing below, the Signatories acknowledge their mutual consent to be bound by the terms of this Agreement. This Agreement shall be effective as of the date corresponding to the last signature obtained to this Agreement and such date shall be known as the “date of execution” of this Agreement.

[Signatures follow on separate pages]

Appendices:

Appendix A – Section 106 Consultation Correspondence

Appendix B – List of Consulting Parties

Appendix C – Assessment of Effects Report, including APE graphics

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Signatory  
NATIONAL PARK SERVICE

By: \_\_\_\_\_  
Charles Cuvelier  
Superintendent  
George Washington Memorial Parkway

Date: \_\_\_\_\_



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Signatory  
NATIONAL CAPITAL PLANNING COMMISSION

By: \_\_\_\_\_  
Marcel Acosta  
Executive Director

Date: \_\_\_\_\_

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Signatory  
VIRGINIA DEPARTMENT OF HISTORIC RESOURCES

By: \_\_\_\_\_  
Julie Langan  
Virginia State Historic Preservation Officer

Date: \_\_\_\_\_

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**APPENDIX A – SECTION 106 CONSULTATION CORRESPONDENCE**

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United States Department of the Interior

George Washington Memorial Parkway  
NATIONAL PARK SERVICE  
National Capital Region  
700 George Washington Memorial Parkway  
McLean, VA 22101

IN REPLY REFER TO:

November 4, 2022

Julie Langan  
State Historic Preservation Officer  
Attn: Roger Kirchen and Jonathan Connolly  
Virginia Department of Historic Resources  
2801 Kensington Avenue  
Richmond, Virginia 23221  
Sent by email to [julie.langan@dhr.virginia.gov](mailto:julie.langan@dhr.virginia.gov), [roger.kirchen@dhr.virginia.gov](mailto:roger.kirchen@dhr.virginia.gov),  
[Jonathan.comolly@dhr.virginia.gov](mailto:Jonathan.comolly@dhr.virginia.gov)

Re: Initiation of Section 106 Consultation, George Washington Memorial Parkway South Section and  
Mount Vernon Trail Improvement Plan / Environmental Assessment

Dear Ms. Langan:

The National Park Service (NPS) is preparing a plan and corresponding Environmental Assessment (EA) to address deferred maintenance needs and safety along the southern portion of the George Washington Memorial Parkway (GW Parkway) and the entirety of the Mount Vernon Trail (MVT). The NPS wishes to formally initiate consultation with the Virginia Department of Historic Resources (DHR), serving as the Virginia State Historic Preservation Office (SHPO), in compliance with Section 106 of the National Historic Preservation Act (NHPA) (54 U.S.C. § 306108) and its implementing regulations (36 CFR § 800).

Description of the Undertaking

The plan would address deferred maintenance and improve safety on the south section of the GW Parkway—between the City of Alexandria and Mount Vernon in Virginia—and the majority of the MVT, extending from Theodore Roosevelt Island and the intersection with the Custis Trail in Arlington, Virginia, to Mount Vernon (the portion of the MVT and GW Parkway under the jurisdiction of the City of Alexandria would not be part of this planning exercise). The project would develop context sensitive solutions that improve these resources while maintaining the GW Parkway's scenic and historic character. Safety enhancements may include potential geometric changes to both the road and trail, such as trail and trail bridge widening; trail intersection treatments; permanent implementation of a road diet on the GW Parkway; and the installation of signals, crosswalks, and other roadway intersection treatments.

The GW Parkway was established by Congress on May 29, 1930. It is a scenic roadway that runs along the Potomac River through Virginia, the District of Columbia, and Maryland, protecting the landscape and natural and cultural resources along the shoreline of the river while offering magnificent scenic vistas from Mount Vernon to Great Falls. It is part of the comprehensive system of parks, parkways, and



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recreational areas surrounding the nation's capital and honors the nation's first president. The GWMP was listed in the National Register of Historic Places (NRHP) in 1995.

The southern portion of the GW Parkway, originally known as Mount Vernon Memorial Highway (MVMH), was under construction from 1929 to 1932, becoming part of the GW Parkway with its authorization in 1930. The MVMH extends 15.2 miles along the Potomac River from Arlington Memorial Bridge in Washington, DC to George Washington's historic home at Mount Vernon in Virginia. The MVMH was listed in the NRHP in 1981. For the purposes of this undertaking, the southern portion refers to the 8.5-mile stretch extending south from the north bank of Hunting Creek to the terminus at Mount Vernon.

The plan is needed to help preserve the historic parkway for future generations, improve the visitor experience, reduce annual park operations and maintenance costs, and improve visitor safety. The 2020 Safety Assessment prepared for the southern portion of the GW Parkway analyzed data from 389 crashes documented since 2005 (2005-2015; 2018-2019). Additionally, the pavement at the southern portion consists of reinforced concrete, which has been rated as being in overall "fair" condition. However, there are segments that are in poor condition, featuring deteriorated joints and undermined areas where holes of one foot or deeper are present.

There is also a need to address conditions along the MVT – an 18-mile paved multi-use trail that is one of the most heavily used multi-use trails in the country. It is a popular recreation resource and critical regional transportation link that hosts over one million pedestrians and bicyclists annually. The trail is relatively narrow by modern standards, and is characterized by meandering curves, timber bridges, and dense vegetation in some areas that lead to safety concerns. Such concerns, coupled with growing usage of the trail contributes to crowding, user conflicts, and crashes. Aside from providing site specific safety improvements, the plan seeks to address the deterioration and inadequacy of the pavement surfaces, shoulders, bridges, trail tread (condition and width), trail alignment, drainage, signage, and trailhead features (i.e., benches, drinking fountains, bike racks, etc.). The NPS originally constructed the MVT in the 1970s and 1980s, and although it is not listed as a historic resource, it is located within the GW Parkway Historic District boundaries and was identified as a contributing circulation feature due to its association with no longer extant foot trails and bridle paths in the MVMH North Cultural Landscapes Inventory (CLI). The VA SHPO concurred with the findings of the CLI, which serves as a consensus determination of eligibility on September 20, 2022. Therefore, the MVT is being considered NRHP-eligible for purposes of this undertaking.

The plan for safety improvements and addressing deferred maintenance would be informed by the recently completed GW Parkway Traffic and Safety Context Sensitive Solutions Assessment, the MVT Corridor Study, the project scoping assessment (PSA) for the MVT, as well as the Cultural Landscape Reports (CLR) and the Cultural Landscape Inventories (CLI) as baseline documents in evaluating alternatives.

Considerations of climate change, coastal hazards, and stormwater management will also influence the proposed alternatives. Two tributary streams (Hunting Creek, Little Hunting Creek) and a sizable marsh area are located at the southern portion of the Parkway. The Parkway and MVT bisect various segments of the marsh, and the streams flow under the Parkway and trail to the main river channel. A Coastal Hazards & Climate Change Asset Vulnerability Assessment was completed for the GW Parkway lands in 2017. In these areas, the Parkway, trail, and trail bridges are recognized as vulnerable resources due to floods, storm surge, and sea-level rise along the Potomac River. Stormwater management strategies and planning for resilient infrastructure are essential design considerations.

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Section 106 Consultation and NEPA Coordination

In accordance with the Section 106 implementing regulations issued by the Advisory Council on Historic Preservation (36 CFR part 800), NPS will coordinate Section 106 consultation and ensure the meaningful involvement of all consulting parties while working to identify an Area of Potential Effect (APE) and historic properties within the APE. Later, continued consultation will work to seek agreement on the determination of effect to historic properties and whether any potential adverse effects to historic properties might be avoided, minimized, or mitigated.

The NPS will prepare an EA to document the analysis of potential impacts of the proposed plan in accordance with the National Environmental Policy Act (NEPA). The NPS plans to coordinate the Section 106 and NEPA processes per the implementing regulations (36 CFR § 800.8) of the NHPA. The NPS will also develop an Assessment of Effect for this project as a separate, but parallel, process to the EA.

Area of Potential Effect and Historic Properties

NPS has developed a graphic illustration of the draft APE that is subject to modification through the consultation process (see Attachment A). The draft APE for direct and indirect effects includes areas immediately adjacent to the MVT and the southern portion of the GW parkway as well as areas that may be used for construction staging or may experience a visual change from the undertaking. The draft APE consists of the area within the southernmost boundary of the GW Parkway (from Mount Vernon to the City of Alexandria) and a narrower portion of GW Parkway boundary, north of the City of Alexandria. The draft APE includes the western portion of Theodore Roosevelt Island to consider any potential visual effects that may occur to that section of the MVT.

The boundaries of the draft APE overlap with several boundaries of historic properties, including the north section of the GW Parkway (listed as the George Washington Memorial Parkway) and the south section of the GW Parkway (listed as the MVMH). Other historic properties within the draft APE are the Theodore Roosevelt Island National Memorial, Arlington Memorial Bridge, Washington National Airport Terminal, Fort Hunt, and Mount Vernon. The draft APE also includes areas that have the potential to uncover archaeological resources.

Consulting Party Outreach

In accordance with 36 CFR Part 800.2(c), NPS identified parties that may be interested in the proposed plan for the southern portion of the GW Parkway and the MVT and its effect on historic properties. The following organizations will be invited to participate as Section 106 consulting parties:

- Virginia Department of Historic Resources  
(Virginia State Historic Preservation Office)
- DC State Historic Preservation Office
- National Capital Planning Commission
- Commission of Fine Arts
- Virginia Department of Transportation
- Fairfax County Department of Transportation
- Fairfax County Park Authority
- City of Alexandria Department of Planning and Zoning
- City of Alexandria Transportation and Environmental Services
- Arlington County Department of Environmental Services
- Arlington County Parks and Recreation
- Office of Dan Storck, Mount Vernon Supervisor
- George Washington's Mount Vernon (Mount Vernon Ladies Association)
- Friends of Dyke Marsh
- Friends of the Mount Vernon Trail
- Pamunkey Indian Tribe
- Upper Mattaponi Indian Tribe

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- Rappahannock Tribe
- Nansemond Indian Nation
- Chickahominy Indian Tribe
- Chickahominy Indian Tribe Eastern Division
- Monacan Indian Nation
- Catawba Indian Nation
- Delaware Nation
- Absentee Shawnee Tribe of Indians of Oklahoma
- Shawnee Tribe

We look forward to beginning the Section 106 consultation process for this project. If you have any questions or preliminary feedback related to the project, the draft APE, and invited consulting parties please contact Matt Virta, Cultural Resources Program Manager for the GW Parkway, at [matthew\\_virta@nps.gov](mailto:matthew_virta@nps.gov).

Sincerely,

**Charles** Date:  
**Cuvelier** 2022.11.15  
12:54:05 -05'00'

Charles Cuvelier  
Superintendent

Attachments: Attachment A – Draft Area of Potential Effect

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**COMMONWEALTH of VIRGINIA**

**Department of Historic Resources**

Travis A. Voyles  
Acting Secretary of Natural and  
Historic Resources

2801 Kensington Avenue, Richmond, Virginia 23221

Julie V. Langan  
*Director*  
Tel: (804) 482-6446  
Fax: (804) 367-2391  
[www.dhr.virginia.gov](http://www.dhr.virginia.gov)

December 7, 2022

Charles Cuvelier, Superintendent  
National Park Service - George Washington Memorial Parkway  
700 George Washington Memorial Parkway  
Turkey Run Park  
McLean, VA 22101

RE: *George Washington Memorial Parkway South Section and Mount Vernon Trail  
Improvement Plan / EA*  
City of Alexandria, Arlington and Fairfax County, Virginia  
DHR File No. 2022-5184

Dear Superintendent Cuvelier:

The Virginia Department of Historic Resources (DHR) has received your letter dated November 4, 2022, received on November 15, 2022, initiating the Section 106 consultation process for the above referenced project. This project entails addressing deferred maintenance needs and safety along the southern portion of the George Washington Memorial Parkway (GW Parkway) and the entirety of the Mount Vernon Trail (MVT).

DHR understands that the project consists of addressing deferred maintenance and improving safety on the south section of the GW Parkway—between the City of Alexandria and Mount Vernon in Virginia—and the majority of the MVT, extending from Theodore Roosevelt Island and the intersection with the Custis Trail in Arlington, Virginia, to Mount Vernon (the portion of the MVT and GW Parkway under the jurisdiction of the City of Alexandria would not be part of this planning exercise). The project would develop context sensitive solutions that improve these resources while maintaining the GW Parkway's scenic and historic character. Safety enhancements may include potential geometric changes to both the road and trail, such as trail and trail bridge widening; trail intersection treatments; permanent implementation of a road diet on the GW Parkway; and the installation of signals, crosswalks, and other roadway intersection treatments.

DHR has reviewed the maps provided with the consultation letter and has the following questions and comments:

- What method was used to create the draft area of potential effects (APE)?

Western Region Office  
962 Kime Lane  
Salem, VA 24153  
Tel: (540) 387-5443  
Fax: (540) 387-5446

Northern Region Office  
5357 Main Street  
PO Box 519  
Stephens City, VA 22655  
Tel: (540) 868-7029  
Fax: (540) 868-7033

Eastern Region Office  
2801 Kensington Avenue  
Richmond, VA 23221  
Tel: (804) 367-2323  
Fax: (804) 367-2391



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- Was a linear buffer created, or was a view shed analysis conducted? It appears that some sections of the APE account for potential visual effects while other areas may not.
- Please provide VCRIS map(s) of the project area with the APE delineated.

If you have any questions regarding these questions and comments, please contact me at 804-482-8089 or via email, [jonathan.connolly@dhr.virginia.gov](mailto:jonathan.connolly@dhr.virginia.gov).

Sincerely,



Jonathan D. Connolly, Project Review Archaeologist  
Review and Compliance Division

Western Region Office  
962 Kime Lane  
Salem, VA 24153  
Tel: (540) 387-5443  
Fax: (540) 387-5446

Northern Region Office  
5357 Main Street  
PO Box 519  
Stephens City, VA 22655  
Tel: (540) 868-7029  
Fax: (540) 868-7033

Eastern Region Office  
2801 Kensington Avenue  
Richmond, VA 23221  
Tel: (804) 367-2323  
Fax: (804) 367-2391

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United States Department of the Interior

George Washington Memorial Parkway  
NATIONAL PARK SERVICE  
700 George Washington Memorial  
Parkway  
McLean, VA 22101

IN REPLY REFER TO:

January 13, 2023

Jonathan D. Connolly  
Project Review Archaeologist  
Review Compliance Division  
Department of Historic Resources  
2801 Kensington Avenue  
Richmond, VA 23221  
jonathan.connolly@dhr.virginia.gov

RE: George Washington Memorial Parkway South Section and Mount Vernon Trail  
Improvement Plan / EA - DHR File No. 2022-5184

Dear Mr. Connolly:

Thank you for your December 7, 2022, letter regarding comments on the Southern George Washington Memorial Parkway and Mount Vernon Trail Improvement Plan/Environmental Assessment (EA) which included requests for additional information about the project.

The requested information is provided below and attached:

**1. What method was used to create the draft area of potential effects (APE)? Was a linear buffer created, or was a view shed analysis conducted? It appears that some sections of the APE account for potential visual effects while other areas may not.**

An official viewshed analysis was not completed. However, the APE was based on site visits and consideration of potential visual effects. North of Alexandria, a minimum buffer of approximately 90 ft (with the Mount Vernon Trail at the center) was employed. In areas north of National Airport, where the trail cuts in further from the Potomac River, the river is used as the eastern boundary (except at Gravelly Point where the relatively flat topography conceals the visibility of the trail, and it was determined visual effects would be limited to the immediate area surrounding the trail). At Theodore Roosevelt Island, the APE was expanded to encompass the western portion of the island.

South of Alexandria, the APE is restricted over Hunting Creek by the bridge. Otherwise, the APE extends a minimum of approximately 80 feet east of the trail, and the APE's western edge is generally the extent of the Mount Vernon Memorial Highway (MVMH) boundary. The APE largely considers that all road alterations would occur within the

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footprint of the road itself and would not result in any visual effects outside the MVMH boundary. Where the APE varies from the MVMH boundary, this was a due to consideration of construction staging areas at Fort Hunt. For much of the southern portion of the trail, the natural topography (sloping towards the river) provides a visual buffer between development to the west and the MVMH and between the MVMH and the Mount Vernon Trail. In some areas south of Alexandria, the Mount Vernon Trail is outside the official MVMH boundary and so the APE is extended in those areas.

**2. Please provide VCRIS map(s) of the project area with the APE delineated.**

Please see attached.

We appreciate your attention to this project and look forward to your response. If you have any questions or preliminary feedback related to the project, the draft APE, and invited consulting parties please contact Megan Bailey, Acting Cultural Resources Program Manager for George Washington Memorial Parkway, at [Megan\\_Bailey@nps.gov](mailto:Megan_Bailey@nps.gov).

Sincerely,

**Charles** Date:  
**Cuvelier** 2023.01.11  
13:20:28 -05'00'

Charles Cuvelier  
Superintendent

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GEORGE WASHINGTON MEMORIAL PARKWAY SOUTH SECTION AND  
MOUNT VERNON TRAIL IMPROVEMENTS PLAN

**Schrader, Brett**

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**From:** Bailey, Megan M <megan\_bailey@nps.gov>  
**Sent:** Friday, August 18, 2023 5:05 PM  
**To:** Schrader, Brett  
**Subject:** Fw: [EXTERNAL] RE: Compliance - Section 106 Initiation Letters - South Section and MVT Improvements EA

See below

--  
Megan Bailey, PhD  
Cultural Resources Program Manager  
George Washington Memorial Parkway  
700 George Washington Memorial Parkway  
Turkey Run Park  
McLean, VA 22101  
703.289.2509 (office)  
202.438.6641 (cell)  
[megan\\_bailey@nps.gov](mailto:megan_bailey@nps.gov)

---

**From:** Lewis, Andrew (OP) <andrew.lewis@dc.gov>  
**Sent:** Wednesday, August 9, 2023 2:34 PM  
**To:** GWMP Superintendent, NPS <GWMP\_Superintendent@nps.gov>; Troccoli, Ruth (OP) <Ruth.Troccoli@dc.gov>  
**Cc:** Mocko, Robert <Robert\_Mocko@nps.gov>; Joseph, Maureen <Maureen\_Joseph@nps.gov>; Virta, Matthew <Matthew\_Virta@nps.gov>; Bailey, Megan M <megan\_bailey@nps.gov>  
**Subject:** [EXTERNAL] RE: Compliance - Section 106 Initiation Letters - South Section and MVT Improvements EA

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All:

Thank you for providing an Assessment of Effects (AOE) Report for the above-referenced undertaking and for hosting today's consulting parties' meeting. As I indicated in the meeting, the AOE states that no comments were received from our office when Section 106 was initiated but, as evidenced by the email chain below, we did respond on December 9<sup>th</sup>, 2022 to indicate that we would provide more detailed comments once we learned more about the proposed scope of work.

Now that we have reviewed the AOE and participated in the meeting, we understand the general scope of work well enough to concur with the proposed determination of "no adverse effect" *as it relates to historic built environment resources*, but our determination is conditioned upon a review of specific plans for work to be carried out within the District of Columbia, especially that which is proposed near/under the Arlington Memorial Bridge and any other structure (e.g. culverts, bridges, etc.) that may be historically significant.



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Please note that we will not necessarily need to review large volumes of highly technical drawings. The information we need is limited to that which will identify where the trail will be widened and by how much; where roadway alterations will be made and in what manner; how alterations to the Arlington Memorial Bridge and any other historically significant structures will be avoided and the like.

We understand that the proposed work is likely to be a design-build project and that FHWA's Eastern Federal Lands Division may be overseeing the development of the plans along with the NPS.

With regard to archaeology, we understand that the NPS has determined the project has potential for adverse effects on below grade resources and is proposing a Programmatic Agreement (PA) to address how Section 106 consultation will be carried out to address those potential effects. Ruth Troccoli, our City Archaeologist, is copied on this email and will provide a more detailed response as soon as possible but, as I also indicated in the meeting, a review of specific plans may suffice for our archaeological review as well. If so, we will not be a party to the PA.

If you should have any questions or comments regarding the historic built environment, please contact me. Questions or comments about archeology should be directed to Ruth. Otherwise, thank you for consulting with the DC State Historic Preservation Office regarding this matter. We look forward to consulting further as outlined in this message to complete the Section 106 review of this undertaking.

For future reference, our tracking number for this project is 23-0207.

Best regards,



C. Andrew Lewis, Senior Historic Preservation Specialist  
DC State Historic Preservation Office, DC Office of Planning  
1100 4<sup>th</sup> Street, SW, Suite E650, Washington, DC 20024  
202-442-8841  
[andrew.lewis@dc.gov](mailto:andrew.lewis@dc.gov)  
<http://planning.dc.gov/historicpreservation>

---

**From:** Lewis, Andrew (OP)

**Sent:** Friday, December 9, 2022 12:41 PM

**To:** GWMP Superintendent, NPS <GWMP\_Superintendent@nps.gov>; Troccoli, Ruth (OP) <Ruth.Troccoli@dc.gov>

**Cc:** Mocko, Robert <Robert\_Mocko@nps.gov>; Joseph, Maureen <Maureen\_Joseph@nps.gov>; Virta, Matthew <Matthew\_Virta@nps.gov>; Bailey, Megan M <megan\_bailey@nps.gov>

**Subject:** RE: Compliance - Section 106 Initiation Letters - South Section and MVT Improvements EA

Thank you for initiating Section 106 consultation with the DC State Historic Preservation Officer regarding the above-referenced undertaking. We look forward to learning more about the project and consulting with the NPS and consulting parties to evaluate the effects of the project on historic properties within the District of Columbia. We will provide detailed comments about the draft Area of Potential Effect and related topics once more specific information is provided for our review. In the meantime, we have assigned the following tracking number to the project: 23-0207.

Regards,



C. Andrew Lewis, Senior Historic Preservation Specialist  
DC State Historic Preservation Office, DC Office of Planning  
1100 4<sup>th</sup> Street, SW, Suite E650, Washington, DC 20024  
202-442-8841  
[andrew.lewis@dc.gov](mailto:andrew.lewis@dc.gov)  
<http://planning.dc.gov/historicpreservation>

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**From:** Morales, Brendaliz <[brendaliz\\_morales@nps.gov](mailto:brendaliz_morales@nps.gov)> **On Behalf Of** GWMP Superintendent, NPS  
**Sent:** Tuesday, November 15, 2022 3:16 PM  
**To:** Maloney, David (OP) <[david.maloney@dc.gov](mailto:david.maloney@dc.gov)>; Lewis, Andrew (OP) <[andrew.lewis@dc.gov](mailto:andrew.lewis@dc.gov)>; Troccoli, Ruth (OP) <[Ruth.Troccoli@dc.gov](mailto:Ruth.Troccoli@dc.gov)>  
**Cc:** Mocko, Robert <[Robert.Mocko@nps.gov](mailto:Robert.Mocko@nps.gov)>; Joseph, Maureen <[Maureen.Joseph@nps.gov](mailto:Maureen.Joseph@nps.gov)>; Virta, Matthew <[Matthew.Virta@nps.gov](mailto:Matthew.Virta@nps.gov)>; Bailey, Megan M <[megan\\_bailey@nps.gov](mailto:megan_bailey@nps.gov)>  
**Subject:** Compliance - Section 106 Initiation Letters - South Section and MVT Improvements EA

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Good afternoon,

Please see attached.

Superintendent  
George Washington Memorial Parkway

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**Delaware Nation**  
**Tribal Historic Preservation Department**

31064 State Highway 281  
Anadarko, OK 73005  
Phone (405)247-2448

November 21, 2022

To Whom It May Concern:

The Delaware Nation Historic Preservation Department received correspondence regarding the following referenced project(s):

**Project:**

NPS George Washington Memorial Parkway South Section and Mount Vernon Trail Improvement Plan /  
Environmental Assessment VA

In accordance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. 470f), and implementing regulation 36 CFR 800, "Protection of Historic Properties," **Delaware Nation accepts your invitation for consultation on this project.**

Our office is committed to protecting tribal heritage, culture, and religion with particular concern for archaeological sites potentially containing burials and associated funerary objects. In order to meet the federal Section 106 requirements for us to thoroughly review and respond to your project within 30 days, our office must receive the following:

- Name of project
- Geographic coordinates of project
- County and State of project
- Description of ground disturbing work (especially depth of ground disturbance, and any notes on prior disturbance within the APE)
- Listing of any Historic Properties, primarily any known archaeological sites, within half a mile of the project
- Any supporting shapefiles, Google Earth files, or maps of the project APE (especially any noting proximity to existing archaeological sites)
- Responses from SHPO or other consulting federally recognized tribes (when received)
- Any existing Cultural/Archaeological Resource Survey Reports within APE and half mile of APE, and/or indicate if there are any plans for forthcoming surveys
  - *(please note: we are not necessarily requesting a survey at this stage, we just want to know if there are already existing past survey reports and/or plans for new forthcoming surveys which can inform our review.)*
- Principal Investigator Name for surveys (if applicable)

At the end of this letter, I have added our Section 106 Consultation Procedures and Cultural Resource Survey Report Standards for your convenience.

Please note that Delaware Nation, the Delaware Tribe of Indians, and the Stockbridge Munsee Community are the only Federally Recognized Delaware/Lenape entities in the United States and consultation for Lenape homelands must be made with only the designated staff of these three nations (and/or other federally recognized tribal nations who may have overlapping areas of interest). We appreciate your cooperation in contacting the Delaware Nation Historic Preservation Office to conduct proper Section 106 consultation. Should you have any questions, feel free to contact our offices at 405-247-2448 ext. 1403.

*Katelyn Lucas*

Katelyn Lucas  
Historic Preservation Assistant  
Delaware Nation  
405-544-8115

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***Delaware Nation***  
**Tribal Historic Preservation Department**  
31064 State Highway 281  
Anadarko, OK 73005  
Phone (405)247-2448

[klucas@delawarenation-nsn.gov](mailto:klucas@delawarenation-nsn.gov)





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*Delaware Nation*

**Tribal Historic Preservation Department**

31064 State Highway 281

Anadarko, OK 73005

Phone (405)247-2448

**Section 106 Consultation Procedures**

The Delaware Nation Historic Preservation Office has developed the following consultation procedures for all Section 106 projects identified as federal undertakings.

Please submit:

1. A 1-page cover letter with the following information:
  - a. Project Number (include on all correspondence)
  - b. Project Name, City, County, and State
  - c. Project Type
    - i. Explanation of ground disturbance
  - d. Geographic Coordinates in WGS84 Latitude and Longitude
  - e. Contact information including individual's name, address, phone, fax, and email
  - f. Principal Investigator for survey report including address, phone, fax, and email
2. Professional cultural/archaeological survey report including curriculum vitae for all archaeologists who conduct the field surveys and produce the cultural survey reports.
3. Aerial and/or color USGS topographic maps locating project area within a) state, b) county, and c) local area
4. Aerial, color USGS topographic, planimetric maps specifically locating
  - a. 0.5 or 1.0 mile APE study area
  - b. Location of archaeological and historic sites in the APE and in close proximity to the APE
5. Project site plan maps depicting labeled shovel test locations.

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*Delaware Nation*

**Tribal Historic Preservation Department**

31064 State Highway 281

Anadarko, OK 73005

Phone (405)247-2448

**Cultural Resource Survey Report Standards**

Below are the requirements for a cultural resource survey report that will enable the Delaware Office of Historic Preservation to efficiently and effectively assess the proposed project. Please include in all reports:

1. Abstract
  - a. Brief summary of the project, survey results, and recommendations
2. Introduction
  - a. Introduce project and project design
3. Environmental Setting
  - a. Specific location, legal description, composition of project site
  - b. General location, geomorphology, landform, soils, vegetation, hydrology
4. Cultural History
  - a. Brief overview of cultural occupation represented in locale
5. File Search and Previous Research
  - a. Results of file search in state database for previously recorded archaeological sites and review of previous archaeological investigations
  - b. The file search should be for both below ground archaeological sites and above ground historic sites as some states have two repositories for this information (i.e. Tennessee)
6. Field Methods and Analytical Techniques
  - a. How field survey and analysis were conducted
7. Results of Archaeological Field Investigations
  - a. Review of finding and identification of National Register of Historic Places
8. Recommendations
  - a. Summarization of archaeological sites identified, NRHP determinations, and project recommendations
9. References Cited

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8/9/23, 4:02 PM

Mail - Bailey, Megan M - Outlook

**Fw: [EXTERNAL] Re: FW: GWMP South Section & Mount Vernon Trail Improvement Plan Section 106 Consultation**

Morales, Brendaliz <brendaliz\_morales@nps.gov>

Mon 8/7/2023 1:27 PM

To: Joseph, Maureen <Maureen\_Joseph@nps.gov>; Bailey, Megan M <megan\_bailey@nps.gov>

Please see below.

---

**From:** Kaleigh Pollak <kaleigh.monacan@gmail.com>

**Sent:** Monday, August 7, 2023 9:03 AM

**To:** Morales, Brendaliz <brendaliz\_morales@nps.gov>

**Subject:** [EXTERNAL] Re: FW: GWMP South Section & Mount Vernon Trail Improvement Plan Section 106 Consultation

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Good Morning,

Thank you for contacting us about the proposed project. The Monacan Indian Nation is a federally recognized sovereign tribe, headquartered on Bear Mountain in Amherst County. Citizens of the Nation are descended from Virginia and North Carolina Eastern Siouan cultural and linguistic groups, and our ancestral territory includes Virginia west of the fall line of the rivers, sections of southeastern West Virginia, and portions of northern North Carolina. At this time, the active Monacan consultation areas include:

**Virginia:** Albemarle, Alleghany, Amherst, Appomattox, Augusta, Bath, Bedford, Bland, Buchanan, Buckingham, Campbell, Carroll, Charlotte, Clarke, Craig, Culpepper, Cumberland, Dickenson, Floyd, Fluvanna, Franklin, Frederick, Giles, Goochland, Grayson, Greene, Halifax, Henry, Highland, Lee, Loudoun, Louisa, Madison, Mecklenburg, Montgomery, Nelson, Orange, Page, Patrick, Pittsylvania, Powhatan, Prince Edward, Pulaski, Rappahannock, Roanoke, Rockbridge, Rockingham, Russell, Scott, Shenandoah, Smyth, Tazewell, Warren, Washington, Wise, and Wythe Counties, and all contiguous cities.

**West Virginia:** Greenbrier, Mercer, Monroe, Pendleton, Pocahontas, and Summers Counties.

**North Carolina:** Alamance, Caswell, Granville, Orange, Person, Rockingham, Vance, and Warren Counties.

At this time, the Nation does not wish to actively participate in this consultation project, because:

This project is outside our ancestral territory

<https://outlook.office365.com/mail/id/AAQkADYyMWE5MTNLTlY5YmQtNDNBMy05ZmNLTlI5OTZmZGQzNjU2MwAQAM5H8ZVdxzt0qvCh6WbnWao...> 1/4

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8/9/23, 4:02 PM

Mail - Bailey, Megan M - Outlook

X	The project's impacts are anticipated to be minimal
	The project is more closely related to _____, which should be contacted to participate in consultation
	The tribal office does not currently have the capacity to participate in this project
	Other:

However, the Nation requests to be contacted if:

- Sites associated with native history may be impacted by this project;
- Adverse effects associated with this project are identified;
- Human remains are encountered during this project;
- Unanticipated native cultural remains are encountered during this project;
- Other tribes consulting on this project cease consultation; or
- The project size or scope becomes larger or more potentially destructive than currently described.

Please do not make any assumptions about future consultation interests based on this decision, as priorities and information may change. We request that you send any future consultation communications in electronic form to [Consultation@MonacanNation.com](mailto:Consultation@MonacanNation.com). We appreciate your outreach to the Monacan Indian Nation and look forward to working with you in the future.

**Kaleigh Pollak**

On Wed, Jul 26, 2023 at 11:30 AM Tribal Office <[TribalOffice@monacannation.com](mailto:TribalOffice@monacannation.com)> wrote:

Thank you,

*Amie Parra*

**Administrative Assistant**

Monacan Indian Nation  
 O: (434) 363-4864  
 D: (434) 300-5054  
 111 Highview Drive  
 Madison Heights, VA 24572



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8/9/23, 4:02 PM

Mail - Bailey, Megan M - Outlook

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**From:** Morales, Brendaliz <[brendaliz\\_morales@nps.gov](mailto:brendaliz_morales@nps.gov)> **On Behalf Of** GWMP Superintendent, NPS

**Sent:** Wednesday, July 26, 2023 10:29 AM

**To:** [julie.langan@dh.virginia.gov](mailto:julie.langan@dh.virginia.gov); [roger.kirchen@dh.virginia.gov](mailto:roger.kirchen@dh.virginia.gov); Connolly, Jonathan (DHR) <[jonathan.connolly@dh.virginia.gov](mailto:jonathan.connolly@dh.virginia.gov)>; [david.maloney@dc.gov](mailto:david.maloney@dc.gov); Lewis, Andrew (OP) <[andrew.lewis@dc.gov](mailto:andrew.lewis@dc.gov)>; Trocolli, Ruth (OP) <[ruth.trocolli@dc.gov](mailto:ruth.trocolli@dc.gov)>; [diane.sullivan@ncpc.gov](mailto:diane.sullivan@ncpc.gov); [matthew.flis@ncpc.gov](mailto:matthew.flis@ncpc.gov); [tluebke@cfa.gov](mailto:tluebke@cfa.gov); [stephen.brigh@vdot.virginia.gov](mailto:stephen.brigh@vdot.virginia.gov); [sharon.kershbaum@dc.gov](mailto:sharon.kershbaum@dc.gov); [DOTInfo@fairfaxcounty.gov](mailto:DOTInfo@fairfaxcounty.gov); [parkmail@fairfaxcounty.gov](mailto:parkmail@fairfaxcounty.gov); [karl.moritz@alexandriava.gov](mailto:karl.moritz@alexandriava.gov); [yon.lambert@alexandriava.gov](mailto:yon.lambert@alexandriava.gov); [des@arlingtonva.us](mailto:des@arlingtonva.us); [dpr@arlingtonva.us](mailto:dpr@arlingtonva.us); [mt.vernondistrictbos@fairfaxcounty.gov](mailto:mt.vernondistrictbos@fairfaxcounty.gov); [boardsecretary@mountvernon.org](mailto:boardsecretary@mountvernon.org); [info@fodm.org](mailto:info@fodm.org); [mtvernontrail@gmail.com](mailto:mtvernontrail@gmail.com); [vira.sisolak01@gmail.com](mailto:vira.sisolak01@gmail.com); Dressel, Denice <[denice.dressel@fairfaxcounty.gov](mailto:denice.dressel@fairfaxcounty.gov)>; Mvcca <[co.chair1@mvcca.org](mailto:co.chair1@mvcca.org)>; Simon, Noah <[noah.simon@mail.house.gov](mailto:noah.simon@mail.house.gov)>; [splein@eqjinoxinvestmentsllc.com](mailto:splein@eqjinoxinvestmentsllc.com); Robert Gray <[robert.gray@pamunkey.org](mailto:robert.gray@pamunkey.org)>; Pamunkey Tribe <[pamunkeytribe@pamunkey.org](mailto:pamunkeytribe@pamunkey.org)>; [info@umitribe.org](mailto:info@umitribe.org); [wfrankadams@verizon.net](mailto:wfrankadams@verizon.net); Upper Mattaponi <[admin@umitribe.org](mailto:admin@umitribe.org)>; [chiefannerich@aol.com](mailto:chiefannerich@aol.com); [rappahannocktrib@aol.com](mailto:rappahannocktrib@aol.com); Chief Nansemond <[Chief@nansemond.org](mailto:Chief@nansemond.org)>; [ellen@culturalheritagepartners.com](mailto:ellen@culturalheritagepartners.com); [chiefstephenadkins@gmail.com](mailto:chiefstephenadkins@gmail.com); [Stephenradkins@aol.com](mailto:Stephenradkins@aol.com); [dana.adkins@chickahominytribe.org](mailto:dana.adkins@chickahominytribe.org); [wasandson@cox.net](mailto:wasandson@cox.net); Tribal Office <[TribalOffice@monacannation.com](mailto:TribalOffice@monacannation.com)>; Monacan Nation <[Mnation538@aol.com](mailto:Mnation538@aol.com)>; Adrian Compton <[TribalAdmin@monacannation.com](mailto:TribalAdmin@monacannation.com)>; Bill Harris <[bill.harris@catawbaindian.net](mailto:bill.harris@catawbaindian.net)>; Wenonah Haire <[wenonah.haire@catawba.com](mailto:wenonah.haire@catawba.com)>; Klucas <[klucas@delawarenation-nsn.gov](mailto:klucas@delawarenation-nsn.gov)>; ddotson <[ddotson@delawarenation-nsn.gov](mailto:ddotson@delawarenation-nsn.gov)>; [106NAGPRA@astribe.com](mailto:106NAGPRA@astribe.com); [jjohnson@astribe.com](mailto:jjohnson@astribe.com); [tonya@shawnee-tribe.com](mailto:tonya@shawnee-tribe.com); Benjamin Barnes <[chief@shawnee-tribe.com](mailto:chief@shawnee-tribe.com)>

**Cc:** Joseph, Maureen <[Maureen.Joseph@nps.gov](mailto:Maureen.Joseph@nps.gov)>; Bailey, Megan M <[megan.bailey@nps.gov](mailto:megan.bailey@nps.gov)>; Gorder, Joel S <[Joel.Gorder@nps.gov](mailto:Joel.Gorder@nps.gov)>; Theuer, Jason <[Jason.Theuer@nps.gov](mailto:Jason.Theuer@nps.gov)>; Schrader, Brett <[brett.schrader@stantec.com](mailto:brett.schrader@stantec.com)>; Bouchard, Suzanne N <[suzanne.bouchard@nps.gov](mailto:suzanne.bouchard@nps.gov)>; Mocko, Robert <[Robert.Mocko@nps.gov](mailto:Robert.Mocko@nps.gov)>; Katie Hummelt <[khummelt@bbbarch.com](mailto:khummelt@bbbarch.com)>; Lucy Moore <[lmoore@bbbarch.com](mailto:lmoore@bbbarch.com)>; Stidham, Tammy <[Tammy.Stidham@nps.gov](mailto:Tammy.Stidham@nps.gov)>; Tamburro, Sam <[Sam.Tamburro@nps.gov](mailto:Sam.Tamburro@nps.gov)>; McGilvray, Julie D <[Julie.McGilvray@nps.gov](mailto:Julie.McGilvray@nps.gov)>; Smith, Christine M <[Christine.Smith@nps.gov](mailto:Christine.Smith@nps.gov)>; Bruins, Christine A <[Christine.Bruins@nps.gov](mailto:Christine.Bruins@nps.gov)>

**Subject:** GWMP South Section & Mount Vernon Trail Improvement Plan Section 106 Consultation

<https://outlook.office365.com/mail/id/AAQkADYyMWE5MTNLTlY5YmQtNDkMy05ZmNLTl50TzZmZGQzNjU2MwAQAM5H8ZVdxdz0qVCh6VbnWao...> 3/4

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GEORGE WASHINGTON MEMORIAL PARKWAY SOUTH SECTION AND  
MOUNT VERNON TRAIL IMPROVEMENTS PLAN

8/9/23, 4:02 PM

Mail - Bailey, Megan M - Outlook

Dear Consulting Parties,

As you are aware, the National Park Service (NPS) is developing a George Washington Memorial Parkway South Section and Mount Vernon Trail Improvements Plan to guide future actions to improve the roadway and trail while maintaining the scenic and historic character of the George Washington Memorial Parkway. In November 2022, NPS initiated the consultation process pursuant to Section 106 of the National Historic Preservation Act. Consulting parties received a description of the undertaking, a draft Area of Potential Effects (APE), and a list of historic properties within the APE.

Since initiating consultation, NPS has further defined the undertaking and assessed potential effects to cultural resources, which are discussed in an Assessment of Effects (AOE) Report. The purpose of this correspondence is to notify consulting parties that the AOE Report is complete and available to view and download [here](#). Please review the report and submit comments within 30 days of receipt of this letter.

A consulting parties meeting has been scheduled during the 30-day review period to discuss the Improvement Plan and the AOE report. You should have received an invitation to attend this virtual meeting, which will take place on Wednesday, August 9, 1:00-2:30pm. Please contact NPS if you have not received an invitation.

If you have any questions or comments regarding this project, please contact me at [gwmp\\_superintendent@nps.gov](mailto:gwmp_superintendent@nps.gov) and cc Cultural Resources Program Manager Megan Bailey ([megan\\_bailey@nps.gov](mailto:megan_bailey@nps.gov)). We appreciate your continued involvement in the GWMP South Section & Mount Vernon Trail Improvement Plan.

Sincerely,

Superintendent  
George Washington Memorial Parkway

PROGRAMMATIC AGREEMENT  
GEORGE WASHINGTON MEMORIAL PARKWAY SOUTH SECTION AND  
MOUNT VERNON TRAIL IMPROVEMENTS PLAN

**Schrader, Brett**

---

**From:** Joseph, Maureen <Maureen\_Joseph@nps.gov>  
**Sent:** Thursday, August 31, 2023 8:05 AM  
**To:** Bailey, Megan M; Gorder, Joel S; Theuer, Jason  
**Cc:** Schrader, Brett; Katie Hummelt  
**Subject:** Fw: [EXTERNAL] Section 106 Consultation - GWMP South Section & Mount Vernon Trail Improvement Plan

See note from Shawnee Tribe.

Maureen Joseph, ASLA (she/her)  
Resource Management Division Manager  
National Park Service - George Washington Memorial Parkway [Link](#)  
700 George Washington Memorial Parkway  
Turkey Run Park  
McLean, VA 22101

703.289.2512 (office)  
202.734.0932 (cell)  
[maureen\\_joseph@nps.gov](mailto:maureen_joseph@nps.gov)

*I'm a proud graduate of the GOAL Leadership Academy. Ask me about the program!*

---

**From:** Morales, Brendaliz <brendaliz\_morales@nps.gov>  
**Sent:** Thursday, August 31, 2023 7:42 AM  
**To:** Joseph, Maureen <Maureen\_Joseph@nps.gov>  
**Subject:** Fw: [EXTERNAL] Section 106 Consultation - GWMP South Section & Mount Vernon Trail Improvement Plan

Please see below.

---

**From:** Laserfiche Notification <donotreply@laserfiche.com>  
**Sent:** Wednesday, August 30, 2023 4:10 PM  
**To:** Morales, Brendaliz <brendaliz\_morales@nps.gov>  
**Subject:** [EXTERNAL] Section 106 Consultation - GWMP South Section & Mount Vernon Trail Improvement Plan

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

This email is in response to GWMP South Section & Mount Vernon Trail Improvement Plan. The project is out of the Shawnee Tribe's area of interest. If you have any questions, you may contact me via email at [Section106@shawnee-tribe.com](mailto:Section106@shawnee-tribe.com).

Thank you for giving us the opportunity to comment on this project.  
Sincerely,

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GEORGE WASHINGTON MEMORIAL PARKWAY SOUTH SECTION AND  
MOUNT VERNON TRAIL IMPROVEMENTS PLAN



**Erin Paden**  
TRIBAL HISTORIC PRESERVATION  
SPECIALIST  
Office: (918) 542-2441, x140  
Email: [epaden@shawnee-tribe.com](mailto:epaden@shawnee-tribe.com)  
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MOUNT VERNON TRAIL IMPROVEMENTS PLAN

**From:** [Cweller, Charles J](#) on behalf of [GWMP Superintendent, NPS](#)  
**To:** [Mocko, Robert](#); [Bailey, Megan M](#); [Joseph, Maureen](#); [Schrader, Brett](#); [Katie Hummelt](#)  
**Subject:** Fw: [EXTERNAL] Assessment of Effects Report, south GWMP and trail  
**Date:** Monday, August 21, 2023 2:34:10 PM

---

Team,

Forwarding this Consulting Parties response. Please advise how you would like these handled in the future and to whom they should be sent.

Superintendent  
George Washington Memorial Parkway

---

**From:** gbooth123@aol.com <gbooth123@aol.com>  
**Sent:** Monday, August 21, 2023 2:15 PM  
**To:** GWMP Superintendent, NPS <GWMP\_Superintendent@nps.gov>  
**Subject:** [EXTERNAL] Assessment of Effects Report, south GWMP and trail

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**TO:** The GW Memorial Parkway Superintendent  
**FROM:** Glenda Booth, President, Friends of Dyke Marsh;  
[info@fodm.org](mailto:info@fodm.org)  
**SUBJ:** Assessment of Effects Report George Washington Memorial Parkway South Section and the Mount Vernon Trail.  
**DATE:** August 21, 2023

Thank you for the opportunity to provide comments on the July 2023 Assessment of Effects Report, George Washington Memorial Parkway South Section and the Mount Vernon Trail.

We realize that this phase of the plan focuses on impacts on historic and cultural resources. We hope you have reached out to historic preservation officials in Virginia, Fairfax County, Arlington and Alexandria as well as private groups like the Mount Vernon Ladies Association, the American Horticultural Society (River Farm), Mount Vernon Regional Historical Society and the Friends of Fairfax Archaeology and Cultural Resources.

We are pleased that the parkway will not be wider than its current

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footprint and urge you to maintain its historic character.

We agree with your goal to “not diminish the significance or integrity of the historic property” (page 29). We hope you will consult with FODM on your plans, especially if designs will have adverse environmental impacts.

We filed extensive comments on January 16, 2023, and direct you to those in making your final plans. Our views have not changed.

We oppose increasing impervious surfaces, harming and destroying mature native trees and native plants; staging construction in the preserve without restoring habitat; and other adverse impacts to an already fragile and diminishing wetland complex.

Our recommendations:

- (1) We recommend that you acknowledge (e.g., page 2, page 8, page 19) that the trail is used by many people to observe and study nature; conduct plant, bird and other surveys; host walks; conduct outdoor programs; conduct academic research and other non-recreational purposes. Those uses should be given equal weight in your plans. In describing trail users on page 19, these uses are ignored or omitted.

To base widening the trail on recommendations by American Association of State Highway and Transportation Officials (AASHTO) appears to focus solely on transportation, not the multi-, non-transportation uses we describe above, which are equally and perhaps more important in light of the rarity of the wetlands in the NPS system and challenges in Dyke Marsh, including the decline in biodiversity, native plants, birds, insects and other natural resource degradation.

Naturalists, students, academics, historians and others use the trail, especially bridge 23, for their studies and surveys. It is a prime area for viewing marsh habitat, tidal activity and wildlife.

- (2) We question the need to widen the multi-use trail to 10 feet from the current 8 to 9 feet south of Alexandria (page 27) and continue

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to request a bicycling safety study as we previously recommended. We assume that "safety improvements," one of the bases of this plan, are supported by documented unsafe conditions. We again ask that you analyze and make publicly available the current state of safe use of the trail by all users, especially bicyclists.

More impervious surface (which your plan acknowledges) can harm and kill trees and other vegetation, introduce more disturbances and invasive plants, increase stormwater runoff, increase human-wildlife conflict, wildlife deaths and further degrade Dyke Marsh.

- (3) As expressed on pages 7 and 16, NPS plans to rehabilitate the bridge over Hunting Creek. We believe NPS should consider designs that allow for marsh migration landward, in light of the rising river levels.
- (4) We would appreciate more detail on the page 15 statement that NPS will "conduct tree pruning and clear vegetation" at places along the trail. At a minimum, NPS should conduct a thorough tree survey as mentioned on page 27, document what trees are present and avoid further harm to trees and prepare a biological inventory of plants and animals present. The plan should include planting more trees, beyond those impacted by these plans. The parkway is losing many valuable trees. Dyke Marsh alone is losing over 1,000 pumpkin ash trees.
- (5) The changes to the Belle Haven marina road appear largely to address crosswalks and the left turn from the parkway into the driveway (pages 9-10). Improving crosswalks and turns off the parkway could make Dyke Marsh visitors' access more accessible and safer.
- (6) On page 15, NPS plans to build a new "comfort station" at Gravelly Point and make amenity improvements along the trail (benches, drinking water, racks for bikes). We continue to urge upgrading the restrooms at Belle Haven Park and make them available in all seasons.
- (7) We urge that any drainage and stormwater management changes

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(pages 28-29) not send more polluted stormwater into Dyke Marsh or the Potomac River. We urge NPS to retain more stormwater onsite and to convince Fairfax County and other jurisdictions to implement measures that retain more stormwater onsite, to prevent it from flowing into the marsh and river. NPS should mitigate any adverse impacts of expanding impervious surfaces.

Since the trail is located in a wetland and floodplain at many points, ponding (page 29) and flooding are inevitable. NPS and trail users should live with it.



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August 30, 2023

From: CAPT Joan E. Darrah, USN (RET)  
New Alexandria Citizens Association (NACA), President  
To: GWMP\_Superintendent@nps.gov  
Copy To: MVCCA Transportation Committee  
Supervisor Dan Storck

SUBJ: George Washington Memorial Parkway (GWMP) South Section and Mount Vernon Trail Improvement Plan – Assessment of Effects – July 2023

I fully understand that the main purpose of the July 2023 *GWMP South Section and Mount Vernon Trail Improvement Plan - Assessment of Effects* was to comply with Section 106 of the National Historic Preservation Act of 1966 which ensures that federal agencies take preservation values into consideration when they propose a project that may affect historic properties.

What I don't understand is why this document contained significant new safety proposals that have not been presented to the general public. Many of these changes will clearly improve safety, such as, dedicated bus pull off areas, crosswalks with pedestrian median refuge areas and rapid flashing beacons, and speed limit feedback signage.

However, there is one proposal of great concern included in the report. That is the implementation of a road diet which is outlined on Page 8 that states that based on US Department of Transportation Volpe Center assessment, "*the NPS proposes to implement a road diet...between Mount Vernon Estate and Belle View Boulevard in the southbound direction, and between Mount Vernon Estate and Tulane Drive in the northbound direction.*" This proposal means that southbound through traffic on the parkway would go to one lane (road diet) at Belle View Blvd. The likely result is that when cars heading south on the parkway are passing Belle Haven Rd, they will be speeding to get in front of slow cars prior to merging into one lane at Belle View Blvd. Northbound parkway traffic, according to the above statement, goes back to two lanes at Tulane. This likely means that cars traveling northbound passing Belle View Blvd and Belle Haven Rd will be accelerating to higher speeds after spending many miles in single lane traffic.

The New Alexandria community and others have been working diligently with NPS and Rep Beyer's office to improve safety at the Belle Haven and Belle View intersections. These proposed recommendations are contrary to what we have been discussing and will make both of these intersections more dangerous.

Of note, I am encouraged, by Appendix B Figure 14 which seems to contradict the words on page 8 and shows a single lane of northbound through traffic and a dedicated merge lane for traffic coming from Belle Haven Rd and heading north on the parkway. This configuration is exactly what we have been working towards with NPS. Unfortunately, figure 12 does not show a

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single lane of northbound through traffic and a dedicated merge lane for traffic coming from Belle View Blvd and heading north on the parkway.

The citizens of New Alexandria are not knowledgeable about the preservation and protection of historic properties. However, we are able to state emphatically that the Belle Haven intersection is extremely dangerous. The changes that we have been working on with Rep Beyer's office and the National Park Service, i.e., a single lane of northbound through traffic and a dedicated merge lane for cars coming from Belle Haven Rd and heading north on the Parkway, need to be implemented.

We hope that NPS will provide our communities with an opportunity to fully discuss the proposed changes for the Belle Haven and Belle View intersections before any changes are implemented.

Thank you for your consideration.

CAPT Joan E. Darrah, USN (RET)  
New Alexandria Citizens Association (NACA), President

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**COMMONWEALTH of VIRGINIA**

**Department of Historic Resources**

Travis A. Voyles  
Secretary of Natural  
and Historic Resources

2801 Kensington Avenue, Richmond, Virginia 23221

Julie V. Langan  
Director  
Tel: (804) 482-6446  
Fax: (804) 367-2391  
www.dhr.virginia.gov

September 1, 2023

Charles Cuvelier, Superintendent  
National Park Service - George Washington Memorial Parkway  
700 George Washington Memorial Parkway  
Turkey Run Park  
McLean, VA 22101

RE: George Washington Memorial Parkway South Section and Mount Vernon Trail Improvement Plan  
City of Alexandria, Arlington and Fairfax Counties, Virginia  
DHR File No. 2022-5184

Dear Superintendent Cuvelier:

The Virginia Department of Historic Resources (DHR) has received the *Assessment of Effects* (AoE) for the project referenced above. This project entails addressing deferred maintenance needs and improving safety along the southern portion of the George Washington Memorial Parkway (GW Parkway) and the entirety of the Mount Vernon Trail (MVT). The project will address maintenance and safety needs on the south section of the GW Parkway—between the City of Alexandria and Mount Vernon in Virginia—and the majority of the MVT, extending from Theodore Roosevelt Island and the intersection with the Custis Trail in Arlington, Virginia, to Mount Vernon (the portion of the MVT and GW Parkway under the jurisdiction of the City of Alexandria would not be part of this undertaking). The project would develop context sensitive solutions that improve these resources while maintaining the GW Parkway's scenic and historic character. Safety enhancements may include potential geometric changes to both the road and trail, such as trail and trail bridge widening; trail intersection treatments; permanent implementation of a road diet on the GW Parkway; and the installation of signals, crosswalks, and other roadway intersection treatments.

According to the AoE, two archaeological sites (44FX0618 and 44FX2551) that are considered potentially eligible for listing in the National Register of Historic Places (NRHP) are located within the project's area of potential effects (APE) along the GW Parkway. Twelve (12) additional unevaluated sites are located within or adjacent to the APE, and there are approximately 9.5 miles of MVT or GW Parkway South Section that have the potential for the presence of archeological resources. In its AoE, the National Park Service (NPS) determined that due to the potential for adverse effects to archeological resources that are eligible, or that may be eligible for listing in the NRHP, the NPS finds the proposed action to have a potential adverse effect to historic properties. DHR **concurs** with this determination.

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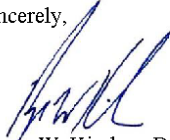
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Page 2  
September 1, 2023  
DHR File No. 2022-5184

Regarding architectural resources and cultural landscapes, the NPS has made a preliminary determination of no adverse effect; however, because the project is in a conceptual phase of design, the NPS has indicated that the full extent of effects is not currently known. To resolve potential adverse effects associated with the project and to ensure currently unidentified adverse effects do not occur as designs are developed in accordance with the Secretary's *Standards*, the NPS intends to pursue the negotiation and execution of an agreement document in accordance with 36 CFR 800.6(c). An agreement document drafted in accordance with 36 CFR 800.6(c) would be a memorandum of agreement; however, due to the size and scope of this project, coupled with the fact that the full extent of adverse effects is currently unidentified, DHR recommends executing a Programmatic Agreement pursuant to 36 CFR 800.6(a)(1)(i)(C) and 36 CFR 800.14(b)(1)(ii).

If you have any questions regarding these questions and comments, please contact Jonathan Connolly at 804-482-8089 or via email, [jonathan.comolly@dhr.virginia.gov](mailto:jonathan.comolly@dhr.virginia.gov). Please reference DHR's project number (2022-5184) in your response.

Sincerely,



Roger W. Kirchen, Director  
Review and Compliance Division

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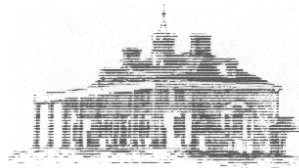


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**Dan Storck**

*Mount Vernon District Supervisor  
Fairfax County Board of Supervisors  
2511 Parkers Lane  
Mount Vernon, VA 22306*



Mount Vernon

*Telephone: (703) 780-7518 E-mail: mtvernon@fairfaxcounty.gov*

**George Washington Memorial Parkway South Section and Mount Vernon (MV) Trail Improvements Plan Assessment of Effects Public Comments**

September 1, 2023

I am writing to convey my comments on the Assessment of Effect for the George Washington Memorial Parkway South Section and Mount Vernon (MV) Trail Improvements Plan. This proposed Improvement Plan presents us with a rare opportunity to further integrate our community with the valuable historical and cultural resources in the Park while giving residents further opportunities to enjoy the natural beauty in which those resources rest. While I cannot comment on every item at this time, based upon my understanding of the Park and how its historical legacy fits into and compliments our community, I would like to draw attention to a few key proposals:

**Mount Vernon Trail Enhancements**

As you know, The Mount Vernon Trail is one of the most heavily used multi-use trails in the country, and is the backbone of our cycling and pedestrian network in the Mount Vernon District. However, due to its heavy use and often narrow dimensions, the traffic mix can become concerning for slower moving pedestrians, and simultaneously frustrating for quicker moving cyclists. For this reason, I strongly support the proposed widening of the Mount Vernon Trail. A wider trail not only accommodates the growing number of users, but also aligns the principles of safety and inclusivity by allowing and encouraging a more diverse range of users. This enhancement will undoubtedly contribute to a more comfortable and enjoyable experience for pedestrians, cyclists, and wheelchair users while ensuring that the trail can adequately connect an ever-diverse community to our historical resources, such as the Mount Vernon Estate.

**Safer Community Crossing of the George Washington Memorial Parkway**

Many neighborhoods adjacent to the GW Parkway currently face a challenge of separation due to the road's presence and its fast-moving traffic. This creates a physical barrier which in turn limits neighborhood and community access to the recreational and historical resources of the Park. The proposed crosswalks, designed to provide safe and accessible points of connection, offer a tangible solution to this challenge. Residents will be able to access the trail and the Park with less concerns about vehicular traffic, resulting in a safer and more pleasant experience. I also support the proposed study and future implementation of RRFBs at select and high demand pedestrian locations where traffic speed and lane dimensions would support such additions.

**George Washington Memorial Parkway Road Upgrades**

Anyone who drives regularly on the Parkway as I do is well aware of the number of potholes and poor condition of the roadway. The current condition of these slabs, dating back to the 1980s, is extremely poor, and not befitting of the scenic or historical character and significance of the GW Parkway. The cracks, uneven surfaces, and general wear and tear compromise the integrity of the road, contributing to accidents while reducing overall safety. I strongly support the replacement and upgrading of these concrete slabs to bring them up to standards suitable for a scenic Park. While it is too early to comment on specific roadway *design* modifications, I can comment that any well considered roadway enhancement would focus on improving safety for people both

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outside and inside their vehicle, while contributing to connecting communities to the Mount Vernon Trail and the Park's existing historical assets.

**Stormwater upgrades**

As we all know, flooding and stormwater management is a serious issue for this portion of the Mount Vernon District and Fairfax County. I strongly support NPS's proposed upgrades to drainage and stormwater infrastructure to address water quantity management and water quality treatment issues as outlined in the proposed Improvements Plan. While we work to tackle climate change on all fronts, we must also recognize that adapting our existing infrastructure to better handle increasingly inclement weather is critical to the protection of our historical and cultural heritage.

**Maintenance**

Lastly, we must keep in mind that as important as adding new facilities, is the maintenance of our existing ones. We rightly hold public comment to consider the historical and cultural impacts of proposed new facilities within the Park. However, we do not hold public comment on how the lack of maintenance of existing facilities can undermine the historical character of the Park or its assets. Therefore, it is critical that when considering any of the proposed items for construction, NPS ensure that adequate maintenance funds exist or can be reasonably made to exist for the maintenance of any new facilities after they are constructed.

Thank you for this opportunity of public comment. As with any multi-scope project, each of the various components and proposals have their own respective merits and potential drawbacks. As we proceed, I am eager to engage with community members to hear their insights, concerns, and hopes for these improvements. It is only through this collective effort that we can arrive at a solution that benefits us all. I eagerly await both the results of this comment period, as well as future comment periods to come.

Respectfully yours in public service,



Dan Storck  
Mount Vernon District Supervisor

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**From:** [Lewis, Andrew \(OP\)](#)  
**To:** [Bailey, Megan M](#); [julie.langan@dhr.virginia.gov](#); [roger.kirchen@dhr.virginia.gov](#); [Connolly, Jonathan \(DHR\)](#); [Troccoli, Ruth \(OP\)](#); [diane.sullivan@ncpc.gov](#); [matthew.flis@ncpc.gov](#); [stephen.brich@vdot.virginia.gov](#)  
**Cc:** [Joseph, Maureen](#); [Theuer, Jason](#); [Katie Hummelt](#); [Schrader, Brett](#); [GWMP Superintendent, NPS](#); [Gorder, Joel S](#)  
**Subject:** RE: Draft Programmatic Agreement - GWMP South Section and Mount Vernon Trail Improvements Plan  
**Date:** Monday, September 18, 2023 9:59:25 AM  
**Attachments:** [image001.png](#)

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Hello Megan:

We appreciate being provided a copy of the draft Programmatic Agreement (PA) for the above-referenced undertaking but, as noted in the comments provided on August 9, 2023, the DC SHPO does not need to participate in or be a signatory to the PA for purposes of the historic built environment since we have determined that the undertaking will have “no adverse effect” on historic built environment resources in the District of Columbia conditioned upon a review of project plans as they become available.

Please note that we will not need to review large volumes of highly technical drawings. The information we will need to review is limited to that which will provide general information concerning where the trail will be widened and by how much; where roadway alterations will be made and in what manner; how alterations to the Arlington Memorial Bridge and any other historically significant structures such as culverts, bridges and the like will be carried out and/or avoided.

Based upon conversations with our City Archaeologist, Ruth Troccoli (who is copied on this email), it is my understanding that a review of future project plans is also likely to suffice for our review of archaeological resources but I will defer to her regarding our need to participate/sign the PA for archaeological purposes.

Best regards,



**C. Andrew Lewis, Senior Historic Preservation Specialist**  
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**From:** Bailey, Megan M <megan\_bailey@nps.gov>  
**Sent:** Wednesday, September 6, 2023 5:07 PM  
**To:** [julie.langan@dhr.virginia.gov](#); [roger.kirchen@dhr.virginia.gov](#); [Connolly, Jonathan \(DHR\)](#) <[jonathan.connolly@dhr.virginia.gov](#)>; [Maloney, David \(OP\)](#) <[david.maloney@dc.gov](#)>; [Lewis, Andrew \(OP\)](#) <[andrew.lewis@dc.gov](#)>; [Troccoli, Ruth \(OP\)](#) <[Ruth.Troccoli@dc.gov](#)>; [diane.sullivan@ncpc.gov](#); [matthew.flis@ncpc.gov](#); [tluebke@cfa.gov](#); [stephen.brich@vdot.virginia.gov](#); [Kershbaum, Sharon \(DDOT\)](#) <[sharon.kershbaum@dc.gov](#)>; [DOTInfo@fairfaxcounty.gov](#); [parkmail@fairfaxcounty.gov](#); [karl.moritz@alexandriava.gov](#); [yon.lambert@alexandriava.gov](#); [des@arlingtonva.us](#); [dpr@arlingtonva.us](#); [mt.vernondistrictbos@fairfaxcounty.gov](#); [boardsecretary@mountvernon.org](#); [info@fodm.org](#);

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**Subject:** Draft Programmatic Agreement - GWMP South Section and Mount Vernon Trail  
Improvements Plan

**CAUTION:** This email originated from outside of the DC Government. Do not click on links or open attachments unless you recognize the sender and know that the content is safe. If you believe that this email is suspicious, please forward to [phishing@dc.gov](mailto:phishing@dc.gov) for additional analysis by OCTO Security Operations Center (SOC).

Dear Consulting Parties,

Attached for your review is a draft of the Programmatic Agreement (PA) for the George Washington Memorial Parkway South Section and Mount Vernon Trail Improvements Plan. This draft PA text will also be included in the Environmental Assessment (EA), which will be released at the end of September. We are sending the draft PA text in advance of the EA to provide all consulting parties with the opportunity to review and comment within a 30-day review period, in adherence with Section 106 regulations (36 CFR Part 800.3). NPS will consider all comments received on the draft PA as it works to finalize the document with the signatories. Please provide your comments on the draft PA by **Friday, October 6, 2023** to Megan Bailey ([megan\\_bailey@nps.gov](mailto:megan_bailey@nps.gov)).

Per 36 CFR § 800.6(c)(1), PA *signatories* include the federal agency and the State Historic Preservation Officer(s) or Tribal Historic Preservation Officer(s). The Advisory Council on Historic Preservation (ACHP) may also be a signatory as may invited signatories, typically other agencies or entities with Section 106 responsibilities or other responsibilities assigned to them under the PA. Currently, the signatories for this PA are the National Park Service, the National Capital Planning Commission, the District of Columbia State Historic Preservation Officer, and the Virginia Department of Historic Resources State Historic Preservation Officer. Signatories have the authority to execute, amend, or terminate the PA. Once all signatories have signed the PA, it is executed and goes into effect.

Per 36 CFR § 800.6(c)(3), consulting parties are invited to sign the PA as *concurring parties*. A



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concurring party is a consulting party invited to concur in the agreement document but who does not have the authority to amend or terminate the agreement. A concurring party signature is not required to execute the agreement. Thus, a concurring signature is essentially an endorsement of the agreement, and the refusal to sign by any party asked to concur in the agreement does not prevent the agreement from being executed. If your party is interested in being a concurring party please contact Megan Bailey ([megan\\_bailey@nps.gov](mailto:megan_bailey@nps.gov)).

We sincerely appreciate your participation in the Section 106 process and look forward to receiving your comments.

Best,  
Megan Bailey

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**APPENDIX B – LIST OF CONSULTING PARTIES**

Virginia Department of Historic Resources	Arlington County Department of Environmental Services
DC Historic Preservation Office	Arlington County Parks and Recreation
National Capital Planning Commission	Office of Dan Storck, Mount Vernon Supervisor (Fairfax County)
Commission of Fine Arts	George Washington’s Mount Vernon Ladies Association
Virginia Department of Transportation	Friends of Dyke Marsh
DC Department of Transportation	Friends of the Mount Vernon Trail
Fairfax County Department of Transportation	Fairfax County Heritage Resources
Fairfax County Park Authority	Wellington Civic Association / MVCCA
City of Alexandria Department of Planning and Zoning	Congressman Don Beyer
City of Alexandria Transportation and Environmental Services	American Horticultural Society
New Alexandria Citizens Association	Capitol Hill Village

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**APPENDIX C – ASSESSMENT OF EFFECTS REPORT, INCLUDING APE GRAPHICS**

[Please see website:

[ParkPlanning - GWMP South Section & MV Trail Improvement Assessment of Effect \(nps.gov\)](https://www.nps.gov/parkplanning/gwmp-south-section-mv-trail-improvement-assessment-of-effect)]